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Giving students voice as a strategy for improving teacher practice

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This study used a semi-structured interview tool with elementary students in an inclusive charter school in a western state in the United States. Students with and without disabilities were asked to comment on their participation in their classroom and their perceptions of the classroom climate in order to begin a dialogue with their teachers that would lead to more participation in decision-making. Compiled data from the interviews were shared with teachers who were then interviewed about their analysis and use of the data for making improvements to their classroom environment and approach to pedagogy. Teacher responses were analysed for trends and actions taken following the feedback. Teachers concluded that the data were helpful and committed to use the tool regularly in the future to foster ongoing conversations with their students. They used the information from their students to make changes in the classroom climate, in their own teaching practices, and in the content of what they were teaching. Implications for expanding upon the use of the tool in the future to promote greater dialogue between teachers and students are discussed.

Keywords: educational inclusion; student voice and participation; teacher development

Giving students a 'voice' for active participation in decision-making about their learning environment has great potential for increased engagement and motivation for learning. Several authors have explored the concept of student voice in their work (Cook-Sather 2006a, 2006b; Bergmark 2008; Lodge 2005; Robinson and Taylor 2007; Rudduck and Fielding 2006; Smyth 2006). Allison Cook-Sather explored the concept of student voice in depth (Cook-Sather 2002, 2006a, 2006b, 2007a, 2007b), and argued that student voice is a fundamental characteristic of democratic education and change in teacher practice must be a collaborative effort involving students. Further, this emphasis on student participation in meaningful decisions about instruction has the potential to impact the power imbalances that often occur within traditional classrooms. Cook-Sather (2007a) also makes the case that researchers must beware of the tendency to over-generalise student perspectives, as this may cause minority perspectives to become invisible. Further, some authors (Lodge 2005; Rudduck and Fielding 2006) warn against the tendency toward a superficial nod to 'student voice' in schools which make only cursory attempts to solicit feedback from students, rather than a more fundamental change to the power relations within classrooms. In this paper, we refer to 'student voice' in a manner that is consistent with the uses by Cook-Sather (2002) and Lodge (2005). That is that students participate in meaningful decision-making and dialogue regarding their learning environment and classroom climate for the purposes of building upon foundations of community and trust. The study described in this paper provides a process for initiating a conversation between students and teachers in order to establish true trust and dialogue over time, and to examine the power relations between these stakeholders.

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Self-determination theory also influenced research on student participation in decision-making (Deci et al. 1994; Deci and Ryan 1985, 2002; Deci et al. 1991; Reeve and Halusic 2009; Ryan and Deci 2000; Stang et al. 2008). In this approach, the teacher's role is to support and facilitate students' autonomy and engagement with their learning. Several authors describe characteristics of 'learner-centred', 'constructivist' and 'autonomy-supportive' learning environments (Daniels and Perry 2003; Reeve 2006). Characteristics of these approaches include positive relationships with teachers, a range of instructional activities and approaches, opportunities for meaningful choice-making and mutual trust between student and teacher. Some authors distinguish between teachers that teach in an 'autonomy-supportive' manner and those that teach in a controlling manner, with the 'autonomy-supportive' approach being constructed through active participation of, and collaboration with, student participants (Daniels and Perry 2003; Niemiec and Ryan 2009; Pelletier and Sharp 2009).

Despite the substantial body of evidence supporting student voice and constructivist teaching approaches, student perceptions regarding their learning environment are still seldom considered a valid source of data by school leaders or even teachers, particularly when the students in question also experience a disability (Angus 2006; Mitchell 2008). In the US, significant emphasis within mainstream teacher- and administrator-oriented literature has been placed upon differentiation and data-driven decision-making in the years following the passage of No Child Left Behind (2001). This is the case despite the evidence that the class climate and pedagogical style is a central factor affecting outcomes of learning (Allodi 2007; Mitchell 2008). While some current studies consider student perceptions of teaching approaches and learning environments, many of these have focused on adolescent or college students, and students without disabilities (Cook-Sather 2003, 2006b; Koh et al. 2009; McIntyre, Pedder, and Rudduck 2005; McMahon, Wernsman, and Rose 2009; Smyth 2006; Watts and Youens 2007). Giving voice to young people with disabilities has provided many new insights about their experiences, including how they often feel deprived of influence on their own lives and living conditions. They also report loss of competence and opportunity for taking initiatives, making up one's mind and acting self-dependent (see Ringsmose and Buch-Hansen 2004; Høgsbro et al. 1999).

Recent studies have emphasised the importance of teacher leadership and teacher-led change in school improvement (Konings, Brand-Gruwel, and van Merrienboer 2005; Midthassel 2004; Muijs and Harris 2006). The concepts of cognitive coaching and mentoring strategies to support both new and experienced teachers have also been used as a school-improvement strategy (Pelletier and Sharp 2009). Strong and Baron (2004) reviewed several studies of the pedagogical approaches of teachers who perceived a large degree of external pressure for student performance (by school administration, parents, or the community), and found that these teachers taught in a more controlling manner and that their students did not achieve as well as the students of teachers who were more intrinsically motivated. Another theme in Strong and Baron's review (2004) was the tendencies of teachers to behave in a manner that was more controlling when students are viewed as 'low performing'. This tendency has significant implications for inclusive settings, in which teachers are likely to experience great variety in the ability of students to achieve to a particular academic standard. In order for teachers to effectively facilitate student participation in their learning, school leaders will need to value this approach and solicit meaningful input from teachers regarding approaches to meaningful learning in their classrooms.

This study builds upon the work of a large Danish study that introduced teachers to two interview tools that generate information about how students view their own participation in their classrooms and how they perceive the climate of the classroom overall. The study questions were twofold. First, how do teachers interpret and use data from students about their participation and perceptions to make changes in their practice and how do they describe the utility

of such information from students? Second, how do the data from students – both with and without disabilities – compare to a similar a sample of Danish students? (Reported in a separate paper.)

Methods

Our approach to this work draws on the interpretivist tradition of symbolic interactionism which holds that people, including children and youth, make meaning of their worlds through interaction with it (Blumer 1969). Other theorists (Bordieu and Passeron 1977; Friere 1970) have identified ways in which, without dialogue as a central element of pedagogy, schools are likely to reproduce the class-based inequities prevalent in modern society. Students, therefore, must be viewed as key stakeholders in the learning process in order to achieve a democratic education. They have direct experience and perceptions of their classrooms which, when shared can further dialogue within the classroom between teachers and students and among students. We have also drawn from qualitative, participatory approaches (Bogdan and Biklen 2006; Denzin, Lincoln, and Smith 2008) in which participants are directly engaged in the ongoing inquiry efforts – both to collect and interpret the data.

In general, interpretivism describes a set of beliefs about the world and tends to ask questions that involve what people think, their ideas, and the meanings that people attribute to them. This is particularly consistent with the purpose of this study which seeks to ask 'What meanings do children hold about their participation in their own classroom?' and 'How do teachers interpret student responses?' Education research increasingly asks questions best investigated using an interpretivist approach in order to understand what students, along with all other stakeholders – from teachers and school leaders to students and their families – think about their schools, classrooms and participation (see Bentley 2008; Ferguson 2009; Tetler and Baltzer 2010).

This project also drew upon the work of a four year Danish ministry research project (Egelund and Tetler 2009) that focused in part on gaining a more in depth understanding of the concept of participation in educational settings and the meaning held by the students involved. More specifically, it focused on whether teaching and learning patterns in inclusive classrooms focus on, or resulted in, learning rather than caring, active participation rather than passivity, inner control rather than outer control, elements of challenge rather than security, autonomy rather than support, and finally, being a member of the learning community rather than being isolated and alone in the midst of the classroom community.

The same semi-structured interview tools developed by the Danish study were used to gather the same data from a comparable set of students at one school in a large western state. Students were sampled across similar categories of ADHD, autism, cerebral palsy, dyslexia and learning disabilities* and were selected because of their similar disability labels, as well as their placement in an inclusive setting. In addition, the study explored how data on student perceptions about their learning environment could be used as a source of information by teachers to improve their practice.

Data were collected at an urban charter school with a population of 380 students. In the US, a 'charter school' is a tuition-free public school that operates independently from a school district, with freedom from many of the regulations that apply to traditional public schools. The school was established as a demonstration site for a partnering university. There is a reciprocal relationship between the school and university, in which preservice teachers and university students in fields related to education gain experience through participation in classrooms, and faculty from the university support the school through technical assistance and professional development. The school has been recognised as a successful charter school for its practice of including students with disabilities in general education classrooms. In each classroom, two–four

students who receive special education services participate in all class routines and activities with their peers without disabilities. Students do not attend a separate classroom to receive specialised services, but rather all special education supports and services are integrated into their general education classrooms. Special education teachers move between classrooms, and co-teach for a portion of each day with their general education partners. The majority of the instruction at the school is activity- or project-based, and the school's charter describes a constructivist approach to learning. For these reasons, the researchers had reason to believe that teachers would be interested in participating in a research project related to 'student voice'. Since they sought to be more student than teacher-directed, new ways to explore students' 'definition of the situation' seemed to be a good fit with their practice.

According to the charter school's authorising district, 11% of the students enrolled in the school are identified as gifted or high achieving, 69% are considered to be typically developing and 20% have disabilities. Among the students identified with disabilities, approximately 12% of the students have mild to moderate disabilities and 8% of the students enrolled experience moderate to severe disabilities, which include autism, intellectual, physical, sensory impairments, and multiple disabilities.

The study included 27 students with disabilities receiving services in the general education classroom and 163 peers without disabilities in Grades 1–5 (ages 6 to 11). Ten general education teachers and three special education teachers who serve these students participated in the study. Specific classrooms were chosen based on the disability categories represented by individual students. Students with the labels ADHD, autism, cerebral palsy, learning disability, and intellectual disability participated in this study. Although the category of 'blindness' was included in the original study, no students matching this disability label attended the participating US school. Fifty two per cent of the students who participated were female, 48% were male. Twenty three per cent of students qualify for the free and reduced lunch program, a national measure of low income. Students and teachers from a variety of ethnic groups participated in the study including 51% Euro-American, 19% Latino, 14% Asian, 12% African American, and 4% other categories. English language learners represent 17% of the student body. Twelve of the teachers were female and one was male.

Lodge (2005) describes various interpretations of 'student voice' in the professional literature, with the concept of 'dialogue' being that which holds the greatest potential. The researchers in this study hoped to begin the process of dialogue between students and teachers, and the tools used in the Danish Ministry Study were chosen as appropriate for initiating this process. Using these interview tools also allowed us to compare the US data to that already collected in Denmark in a separate paper. The process of collecting student data and then interviewing teachers regarding their responses over several months is similar to the process used by McIntyre, Pedder, and Rudduck (2005). Differences, however, include the use of a more structured interview tool, a larger sample of students and teachers, and the use of feedback from a substantially younger group of children. In our discussions with teachers regarding the changes they might make, researchers did not prescribe a specific process for engaging in dialogue with their students. Rather, we hoped teachers would respond in a manner that facilitated dialogue using formats relevant to each classroom community. Two interviews with students took place in each of the 10 classrooms. The first interview, titled 'Students' description of themselves', consisted of 25 YES, yes/no, NO questions. The second interview, 'Students' opinion of their classroom environment', consisted of 32 YES, yes/NO, no questions. As in the original study, students were given an opportunity to express a strong or a mild agreement/disagreement through a scaled answer format. This tool was used in order to allow a format that could elicit responses from children as young as 6-years-old, and from students with mild to moderate disabilities. Rudduck and Fielding (2006) raised the concern that if verbal conversations were

used to elicit dialogue between students and teachers, then the most outspoken students would have a tendency to dominate the discussion, thereby further excluding children who might already be at risk of marginalisation. By having a response for every student, the researchers and teachers were able to ensure that some voices did not inhibit others. By providing a way for every child to respond individually, we were able to minimise some of the potential anxiety or lack of confidence on the part of some students.

For the younger students (Grades 1–2), the interviews took place on two separate days to avoid student fatigue and improve internal validity of responses. Researchers conducted interviews in the classrooms as a team with the general education teachers. Small groups of four to five students worked with each researcher or teacher to answer questions and discuss responses. Each student was given a paper with a list of numbered statements. At the end of each statement the student was asked to circle a big Yes, little Yes, big No, or a little No as each question was read aloud by a teacher, who observed students and responded to questions or signs of confusion from students to clarify the intent of each question. Of course, students also discussed their responses with each other and with the adult supporting their group. These additional responses were noted and shared with the researchers at the end of the interview to include in the overall research notes. When it was clear that each of the students understood and had answered the question the researchers moved the group along to the next question. Each interview required approximately 20 minutes during a teacher designated non-instructional time. Students commented that the interviews were 'fun' and several asked if they could do more.

As an interpretive project focusing on the meanings that teachers made of the data that was available to them, the researchers focused on making data meaningful and accessible to teachers, but avoided providing them with an analysis of the information. As the agents that had the potential to take meaningful action, it seemed important that they were each able to make interpretations relevant to the specific context of their students, classrooms, and their experiences as teachers. Following student interviews, each teacher was emailed three follow up questions focused on the teachers' perception of whether the students appeared attentive and at ease during the interviews, the usefulness of the data, whether they learned anything unexpected during the interviews, and how they might use the information. Teachers responded to a single researcher and their identity was kept confidential to other researchers and participants. Within six weeks, student data for each classroom was compiled into two tables that listed the responses for each student visually using graded shades to represent the Yes and No answers. If a response was unclear during analysis of the data it was indicated by a '?' in the table (see Figures 1 and 2). Figure 1 illustrates how students described their participation in one of the fifth grade classes (9- to 10-years-old). Figure 2 illustrates the data on how students in a 1st grade class (6- to 7-years-old) described the climate of their classroom. These summaries include all of the interview questions. Each teacher was emailed the two tables of compiled data that related to their own classroom in preparation for a follow up face-to-face interview. Each interview involved two researchers, one responsible for scribing teacher responses and one in charge of leading the interview. These interviews were approximately 25 minutes each. The third researcher led classroom activities while the general education teacher attended the interview. Each interview was guided by the same set of questions: Participants were asked to identify what they found in the data in terms of patterns for individuals, and groups of students. Teachers were asked about the data in terms of things that were expected or confirming, interesting or provocative, and what the information might imply for changes in the environment, content, and/or their practice. Following this interview a follow up email with similar questions and the two tables with the student data from their classroom was sent to each teacher so that they might reflect further and provide additional reflections or conclusions. After three months, teachers participated in a final face-to-face interview to discuss and reflect on the usefulness of the data

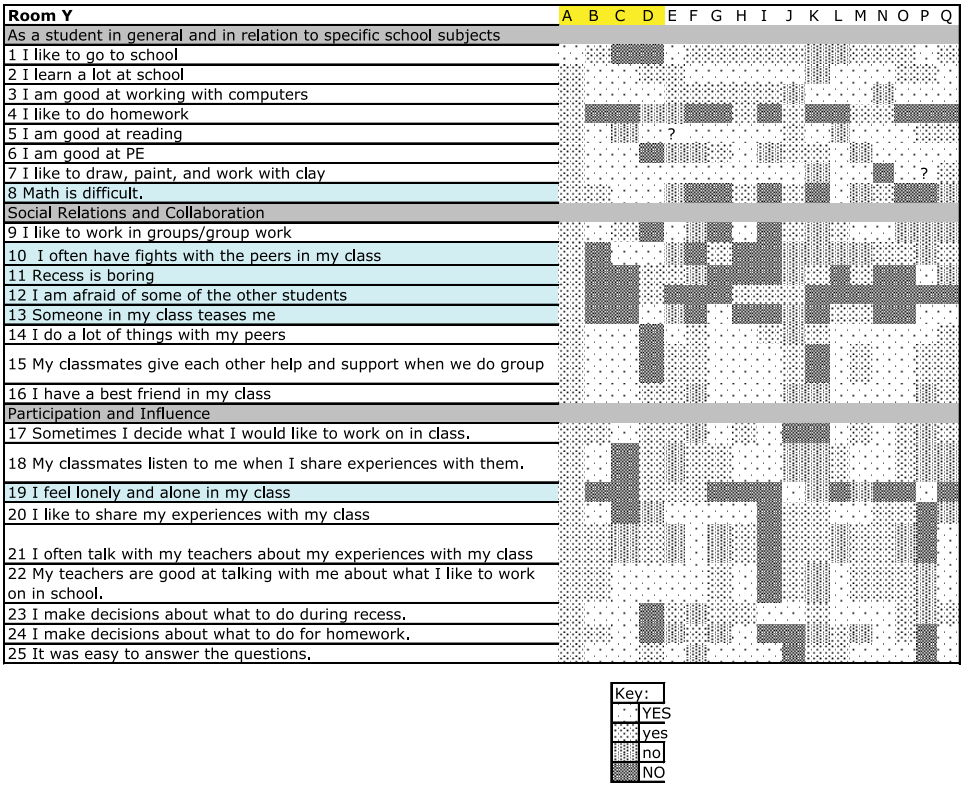

Figure 1. Summary of fifth graders perceptions of their participation.

from students and to indicate whether this information had contributed to any changes in their practice, and what occurred as a consequence.

In order to report patterns and make comparisons to students in the Danish study (Tetler et al. 2010), student data were compiled for each classroom as described above and then consolidated across classrooms disaggregating responses from students with and without disabilities. These data were qualitatively analysed for patterns by all three researchers working separately and then together. Teacher interview data were transcribed to supplement the notes taken during the interviews and then compiled by question category across all teachers. Email data were compiled similarly. Both sets of teacher information (interview and email data) were then analysed for patterns and properties by all three researchers. Data were sorted into such categories as: (1) data from the student interviews that validated what teachers knew, expected, or hoped; (2) data that surprised them about individual students; (3) data that surprised them about the class as a whole or groups of students within the class; (4) actions they decided to take based on what they saw in the data; and (5) what happened as a result. By asking teachers to describe what was expected compared to what was surprising, teachers were encouraged to reflect upon presuppositions they held about students, and the ways in which these were validated or rejected by the students' responses. As is described in the analysis section, this confirmation that they often held mistaken beliefs about students was a central factor in their action-oriented responses to student input.

Cook-Sather (2007a) warns against the marginalisation of voices that 'we do not know how to hear' (394), and yet within our sample of students with disabilities, there were four students

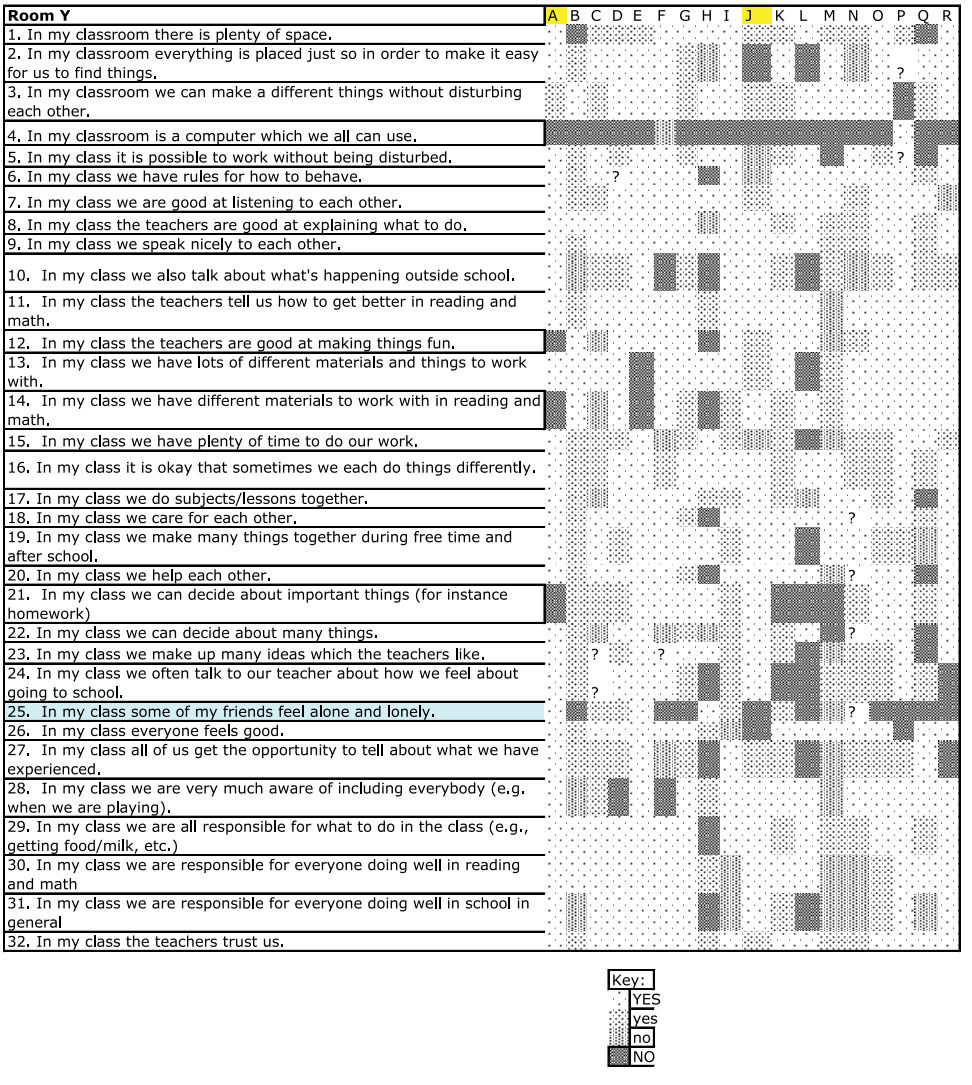

Figure 2. First graders perceptions of classroom climate.

with significant disabilities who did not use verbal language or symbolic communication. For these students, it was agreed that the semi-structured interviews would not provide results that were meaningful for the students or their teachers. An alternative interview was designed, using each student's peer group to respond to a somewhat modified version of the interview questions, with follow-up questions asking the students to interpret the student's behaviour as evidence for their answers. Each target student with significant disabilities attended these group interviews, and participated as much as possible. Some of the modified questions included, 'Does (student) like school?' with follow-up questions of 'what does he like?' and 'How do you know?' Following the student and peer interviews, paraprofessionals who knew the student well and provided direct support to the student on a regular basis were asked the same questions. These interviews were documented and shared with each student's general and special education teachers via email with an opportunity to contribute their own interpretations of the results.

What students thought about classroom climate and participation

After data were collected and compiled for each participating classroom in the school, student responses were consolidated for each question, with students with and without disabilities represented as distinct categories. These consolidated tables (example provided in Figures 3) allowed the research team to further analyse trends between and among students, and will allow for comparison with other schools in future studies as well as with the data from the Danish schools.

For the majority of responses on both interview tools, students with and without disabilities provided similar responses. This outcome is not surprising; these students are educated

Students' Opinion of Class Environment Consolidated Tables

C: Children without disabilities
F: Focus children with disabilities

A Item	B	C Stud.	D YES	E yes	F D+E	G no	H NO	I G+H	J	K Comparison C vs. F
Theme	Physical Environment									
1	In my class there is plenty of space	C	44%	43%	87%	8%	5%	13%	+	Similar
		F	48%	24%	72%	16%	12%	28%	+	
2	In my classroom everything is placed just so in order to make it easy for us to find things.	C	44%	40%	84%	12%	4%	16%	+	Same
		F	48%	32%	80%	16%	4%	20%	+	
3	In my classroom we can make different things without disturbing each other	C	41%	42%	83%	12%	5%	17%	+	Same
		F	48%	32%	80%	4%	16%	20%	+	
4	In my class there is a computer which we all can use.	C	15%	12%	27%	22%	51%	73%	–	Mixed
		F	32%	20%	52%	4%	44%	48%	–	
Theme	Clear Structure									
5	In my class it's possible to work without being disturbed.	C	30%	39%	69%	18%	13%	31%	–	Mixed
		F	54%	29%	83%	13%	4%	17%	+.	
6	In my class we have rules for how to behave.	C	81%	17%	98%	1%	1%	2%	+	Similar
		F	79%	13%	92%	8%	0%	8%	+	
7	In my class we are good at listening to each other.	C	36%	47%	83%	14%	3%	17%	+	Same
		F	52%	32%	84%	12%	4%	16%	+	
8	In my class the teachers are good at explaining what to do.	C	73%	24%	97%	2%	1%	3%	+	Same
		F	72%	24%	96%	0%	4%	4%	+	
Theme	Meaningful Communication									
9	In my class we speak nicely to each other.	C	48%	42%	90%	8%	1%	9%	+	Similar
		F	68%	16%	84%	12%	4%	16%	+	
10	In my class we also talk about what's happening outside school.	C	24%	43%	67%	17%	16%	13%	+	Mixed
		F	36%	48%	84%	12%	4%	16%	–	
11	In my class the teachers tell us how to get better in reading and math.	C	61%	27%	88%	10%	2%	12%	+	Same
		F	72%	20%	92%	8%	0%	8%	+	
12	In my class the teachers are good at making things fun.	C	63%	26%	89%	9%	3%	12%	+	Same
		F	64%	28%	92%	0%	8%	8%	+	
Theme	Differentiation									
13	In my class we have lots of different materials and things to work with.	C	63%	29%	91%	6%	3%	9%	+	Similar
		F	80%	20%	100%	0%	0%	0%	+	
14	In my class we have different materials to work with in reading and math.	C	55%	31%	86%	8%	6%	14%	+	Similar
		F	56%	24%	80%	12%	8%	20%	+	
15	In my class we have plenty of time to do our work.	C	33%	46%	79%	18%	3%	21%	+	Same
		F	50%	29%	79%	21%	0%	21%	+	
16	In my class it is okay that sometimes we each do things differently.	C	65%	31%	96%	3%	1%	4%	+	Similar
		F	64%	16%	80%	8%	12%	20%	+	

Figure 3. Portion of consolidated table, students' opinion of class environment.

together in the same classes and with the same teachers, and so they are likely to have most experiences in common. Students with and without disabilities provided positive responses 75% of the time for questions related to their class environment, and 76% of the time for questions related to their perceptions of themselves as learners. Students answered questions in a similar manner (both positive, both negative, or both mixed) 84% of the time. Students agreed, for example, that they had rules for how to behave, that the teachers were good at explaining what to do, and that the teachers were good at making things fun. In addition, they agreed that they learned a lot at school, and that they like to draw, paint, and work with clay. Responses were marked as 'mixed' if less than 60% of the students answered a question either positively or negatively. For example, for the prompt, 'In my class some of my friends feel alone and lonely', 46% of students agreed with this statement, and 54% disagreed, with minimal differences between students with and without disabilities. Students with and without disabilities also had mixed opinions about whether they talk to their teachers about their experiences in school, with great variability between classrooms.

In some cases, clear differences between the responses of students with and without disabilities arose from the data. For example, only 27% of students without disabilities agreed with the statement 'In my class there is a computer which we all can use', but 52% of students with disabilities agreed with this statement. It may be that students who receive special education supports have more access to computers in these classrooms than students without disabilities. Particularly relevant to the concept of student voice is the response to 'In my class we can decide about important things'. For this prompt, 70% of the students agreed with the statement in contrast to 52% of students with disabilities. This is significant since it may indicate that students with disabilities hold less sway regarding decisions that they view as important. Student responses indicated that students with disabilities were less likely to enjoy homework, and were more likely to find math difficult and to report that they fight with their peers. These findings are not surprising given that many of these focus students receive additional supports and instruction in academic and social skills. The combination of the classroom tables and the consolidated tables allow for individualised analysis and action on the part of the teachers as well as a broader analysis with potential implications for school wide professional development as well as changes to policies and practices in the education of students with disabilities.

Initial reactions by teachers (email interviews)

Following in class student interviews each teacher received an email eliciting their perceptions of the accuracy of the children's responses, such as whether they appeared to take the task seriously, or appeared insecure about revealing personal information in their answers. Teachers consistently reported that the students took the interview seriously and indicated accurate information about themselves. 'I would say that most of the students were very honest', 'We have quite a few competitive students so they were determined to do their best', and 'I was impressed with how seriously most students took the survey' were some of the teacher responses. After the first round of semi-structured interviews a few of the teachers reported on the complexity of the vocabulary in the questions for younger students. For subsequent classes we reworded questions to make them clearer and more comprehensible to students. One of the teachers was concerned about the quick pace of the interviews for her student with an identified disability. Later the teacher individually re-administered the interview with this student to improve the student's attention to his responses.

Teachers also reported that students mostly responded as they had expected with a few surprises. 'One thing that surprised me was how good they feel about how they're doing. I

noticed particularly with one student who struggles in reading that she marked a big YES about her reading level'. This teacher described feeling successful that she had empowered students to feel good about subject areas that are difficult for them. A teacher from an older elementary grade noted the opposite for a few students. She found that the students whom she would have expected to circle big YES to support the statement 'Math is easy' actually indicated that it was really hard by marking big NO. Several teachers were surprised by the students' views about friendships in the classroom and indicated that the students' responses did not match his and her observations, such as students who have been observed to struggle socially but were overly positive in their responses. When students circled that people in their classroom have felt lonely and sad at times, the teachers revealed feeling 'shocked' or 'saddened' and indicated that it made them aware that the children don't always tell them everything. One teacher said 'no child should ever feel lonely or alone at school'.

A recurring sentiment of student empowerment was noted in several comments referencing students' enthusiasm and appreciation for being asked about their experience and perception of the classroom. In general the teachers seemed to be pleased with the initial phase of this process and relieved when their attempts to make a meaningful environment for the students were apparently validated. This is clear in the following statement, 'I was so glad to see how students felt about the atmosphere of the class. It was actually a relief for me since the overall feel was positive which is something I really believe is important to establish as a teacher'. The initial email finished with a question asking the teachers how they might use the information that was collected from the students. In their responses it was evident that teachers wanted students to trust them by sharing their difficulties with subject areas, relationships, and emotions. One teacher succinctly wrote, 'I hope that my students always feel like I am a source of comfort and open to hear all of their thoughts – this is their classroom as well'. Several teachers indicated that they would use the information to improve their skills so that they could better serve the students. Teachers noted that they would provide the students with more choices, such as opportunities to work alone or in pairs instead of in collaborative groups. One teacher was particularly concerned about three of her students who responded with a big NO when asked if they like school. She reflected, 'This makes me a little sad that they feel this way and I would like to help them'.

Teachers' analysis of the data during face to face interviews

After the teachers had an opportunity to review the aggregated data from their own classroom, we conducted face-to-face interviews. This was followed by an additional email to elicit more thoughts or ideas the teachers had regarding the data analysis. In these interview/email steps, we asked teachers to describe what they saw in the data for individual students.

'Surprises'

Several of the teachers expressed feelings of surprise that individual students had negative thoughts about the teachers and the classroom. One teacher expressed sadness when she noted that two of her students think that she does not trust them and another of her students is lonely. This teacher emphatically expressed a desire to meet with these students individually to work to change the situation. Another teacher commented that some students indicated that they are scared in the classroom and do not feel safe. She was shocked by this information and shared that she took immediate action by meeting with the students to begin to address the issues. When teachers were directly involved with the negative rating or when a student's emotional well-being was at risk teachers were motivated to take action swiftly.

Achievement and self-esteem

The relationship between achievement and self-esteem was validated by several of the teachers, who had not previously noted this correlation for their students. When students indicated that they didn't like a subject area, teachers interpreted this as being due to the student having difficulty with mastering the skills in the subject area. Teachers noticed that these same students also rated other areas more negatively than their peers. This trend startled the teachers who hadn't realised how much of the students' self-esteem was tied to academic achievement.

Locus of control

When describing student responses, some teachers clearly indicated that they had some control over improving the situation while others placed the locus of control entirely on the student. For example, one teacher reported:

> Students are aware of the fact that they struggle in a particular subject most particularly reading or math. These same kids don't like homework probably because it is a challenge for them and because if they could make decisions about what to do for homework, they would choose not to do homework.

Several other teachers explained that they provided choices in the homework, but that often parents required the student to do everything and they weren't sure that even if students better understood their choices that parents would allow them to make them. When it came to relationships with peers, several teachers of older students felt that they had less control over how students treated each other at recess and lunch, when they were not under the teacher's direct supervision. One of the teachers found that 'Students who have slow work habits or have trouble reading do not feel like there is enough time to complete work'. In both of these situations the students were responsible for why they were having a difficult time, versus the possibility of the teacher changing the homework so that it could be more accessible or extending time to finish the work in class so the children could be more successful. This same teacher went on to describe a student who indicated that he does not do well in math, yet he requested extra math work (even over the holidays). She shared that this student is petrified of making errors and is a perfectionist. Also surprising for this teacher was that 'some students don't see themselves as the bully but indicated that they are teased or are afraid of others in the classroom'. Again, these observations were not followed up with how the teacher might contribute to improving the situation. Instead the teacher framed the problem as one that originates within the student. One teacher noted that:

> The student who is often out of her seat and into others' business doesn't feel as if there is enough space in the classroom, finds it impossible to work without being disturbed or disturbing others and doesn't feel as if she has the right supplies or materials.

This teacher suggested that it would be difficult for her to accommodate this student because the she believes the problem resides within the student's inability to attend to a given task.

A final reflection included a teacher sharing with the researchers that 'one student feels that we are not good at listening to each other, and that the teachers don't like his ideas, and that the teacher does not make things fun'. In this situation the teacher felt very responsible for these outcomes and was committed to making changes. She indicated that this student had also vocalised that he feels that the teacher plays favourites when calling on students to answer questions. This was not the teachers' perception who indicated that she has been calling on this student more frequently. Teachers identified that they have control over the academics and are responsible for a positive environment however the children also come to school with family and home influences.

Trends identified by teachers

When teachers were asked to look at what the data told them about groups they found that students wanted more choices, increased opportunities to express themselves while others are listening, and that collaborative group work had been overused. Several of the teachers pointed out that the students may not be aware of all of the choices that are available to them in the classroom. For instance, when students in one class indicated that there was not an available computer in their classroom the teacher replied that there is a computer open for student use at all times and concluded that she hadn't been clear about its availability. Other teachers were concerned that students with physical disabilities may not have as many choices in the class or during recess. 'Insecure or shy students or students whose disability may prevent them from accessing information or the environment in the same way as other students said they were lonely or felt alone in the classroom', described one teacher. In another case, a student who uses a wheelchair reported not having choices during recess and the teachers felt that this might indeed be the case because of accessibility issues. This needs to be remedied, the teachers determined, by finding other ways for these students to access games and by providing and encouraging more accessible activities.

Although students felt that their classmates were helpful, groups of students indicated that their peers don't always listen to them when they are speaking. Students shared a desire to be heard and valued by their peers. This lends understanding to some of the difficulties that were expressed around working in groups. Although many students liked group work, teachers found that there were students who did not characterise it as a positive experience. One teacher surmised, 'students who have a hard time with self-esteem or getting along with friends don't work well in groups'. Other teachers decided that they would integrate different types of groupings through using pair-shares, allowing the option for students to work alone, and by monitoring the group work more closely through the use of assigned roles.

Changes described by teachers

Based on the data from the students, teachers shared with the researchers the changes that they would like to make to the classroom environment, to their practice, and to content covered in the classroom. The majority of teachers indicated that it was primarily their responsibility to make changes based upon students' feedback. This trend appears to be in contradiction to the tendency to attribute challenges or inconsistencies to factors within individual students. For example, one teacher said, 'If an adjustment is necessary, then I need to find a way for the student to meet that need'. Other teachers appeared to believe that they shared some responsibility for changing together with their students. When provided with student responses to the statement, 'Recess is boring', one teacher stated that students should 'take advantage of the equipment provided', but that as their teacher she could also 'teach them games to play with the equipment during PE time'. One teacher in particular felt that although she had been trying to identify ways to motivate her students throughout the year, her students were 'not really open to trying and accepting new things'. She continued, 'I know that changing their outlook to a more positive one is something I've been working on, and I wish that they would work on it too'.

Environmental changes

Teachers expressed a desire to monitor the tone in the class to ensure that students were receiving instruction in an environment that promoted equality, dialogue, and more individualised time with teachers. One teacher recognised that she had been forfeiting the activities that students like, such as art and PE, when the class was behind on academics and decided she

wouldn't do this anymore because it was unfair. Another teacher agreed to dialogue with students to better understand their feelings about group work by allowing opportunities for students to participate in a grand conversation, more commonly referred to as a class discussion. Even though each of the teachers seemed committed to listening to students, one teacher suggested, 'Maybe the teachers need to respond differently in order for students to feel like they are being heard'. Therefore, many of the changes being made as a response to student feedback may not be immediately apparent to students. One teacher specifically indicated that she is addressing the concept of fear that was alluded to in the student interviews. She has met with students who were afraid, talked with the student who has been doing the bullying, and is supporting all students with understanding how to get help and advocate for themselves when they are fearful.

Practice changes

In terms of improving their practice teachers revisited the ideas that they will work more closely with students during group work, will provide more opportunities for students to engage in discussions regarding class climate and the learning process, and that they will offer more choices. One teacher reflected, 'Because behaviour is an issue with this class, I think allowing students to write more and share more about how they feel might allow them to feel more heard'. In an attempt to manage the challenging behaviours this teacher found that she had sacrificed self-expression. Another teacher who is struggling with bullying behaviour in her classroom has decided to reach out to the students' families to gain a broader perspective and support for needed changes.

Content changes

After analysis of the data teachers decided that they would include more technology, PE, and art into the curriculum. Although the teachers had felt like they were already doing this, the student interviews clearly indicated that it wasn't happening enough from students' perspectives. Several teachers shared reflection statements such as, 'I need to be more accessible to students struggling with content' and 'I need to make sure that the content I am teaching is compatible with group work'. When a particular subject area was difficult for a large group of students, teachers identified that they would examine their teaching approach to delivering the new content.

Discussion and implications

Teachers shared mixed feelings about receiving the data about their students and the analysis process. 'Reaffirming' and 'uplifting' characterised the positive feelings expressed by teachers when the data revealed that things were going well, as they expected, or as they would hope. 'As a reflective practitioner this gives me some things I need to work towards to improve my classroom', shared one teacher who enjoyed using the tool. 'Upsetting' and 'frustrating' describe the negative feelings teachers expressed when they received unexpected data. 'It was very interesting and kind of hard to hear because you hate to hear that some of your students may be scared and not feeling completely comfortable', replied an early elementary teacher. One teacher suggested that using the 'big YES, little yes' format might be too confusing and would have preferred a three-response option. Teachers shared that although it was not difficult to use the tool or analyse the data it was time consuming given their other responsibilities.

When teachers were given an opportunity to review the interviews they instantly identified areas of need where they would like to implement immediate changes. Changes that teachers

made included teaching students how to be empathetic, emphasising the importance of treating each other with respect, and creating a more positive climate. Teachers committed themselves to embedding more choices into and after the school day and making those choices clearer to students, conducting social skills lessons around specific topics, and developing effective learning groups. Teachers were also interested in continuing to elicit input from students and therefore shared that they would ask for feedback, provide more opportunities for students to express themselves, and work to build better relationship with their students. One teacher had a student who had been struggling socially since the beginning of the year because of some experiences at a previous school. The entire team had been trying to support him and by the time of the first interview with the teacher some weeks after those with the students, the teacher felt 'things had really turned around' for this child and chose to do the interview again with this particular student to see if his perceptions had changed. Most of the negative responses had become positive!

Our research team found that the most time-consuming portion of the process was compiling the initial student responses into tables for the teachers to review and interpret. In a final group interview with all the teachers, they recommended that the interviews be used once every grading period (about three times per year) by all the teachers in the school. They also made a series of suggestions of how data could be compiled more efficiently and with their participation, including working as teams in the computer lab during a regularly scheduled professional development time to aggregate and analyse the data together. Teachers of the sixth, seventh and eighth grade students (ages 10 to 14) are also interested and we expect to continue this aspect of the study with these students during the next school year.

Teachers in this study were initially anxious regarding student responses, and in the first interviews discounted several items of concern as being attributed to the student, rather than the teacher. Through supported analysis of the data, however, there was a clear trend toward increased humility and commitment to change on the part of the teachers by the time of the final interview. These results are quite similar to the conclusions drawn by McIntyre, Pedder, and Rudduck (2005), in which the authors describe the initial disparate teacher responses to student data, with greater acceptance and incorporation of student feedback over time.

Because this particular study emphasised teacher responses to student feedback, it must be acknowledged that teacher, rather than student, perspectives are centralised here, and that within this model, teachers retained the power of interpretation and change-making. Students, therefore, continue to be recipients of teacher-directed change (although hopefully in response to student input). If similar approaches are taken in the future, teams might consider doing more preliminary work with teachers by providing a broader context for student voice work, in order to more explicitly prepare them to combat the power dynamics inherent in their role. In addition, if students were also given more context for the purpose of the interview, and if the interview were part of a dialogue with students about self-determination, choice, and power relationships, it may be more feasible for teachers and students to examine these issues in greater depth. In order to achieve this outcome, researchers may need to clarify their roles within the research context as mediators between teachers and students, with the emphasis on facilitating a commitment to social justice by gaining a better balance between facilitating self-determination, commitment to issues that are determined to be socially important by students, and pre-determined curricular content. In the next phase of research at this school, the researchers intend to pursue these ideas for engaging in dialogue as they support the faculty in embedding interview prompts combined with teacher reflection to increase student participation in classroom decision-making as a part of regular instructional practice.

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