



DIAMOND

DATA INFORMED ACCESSIBILITY: MAKING
OPTIMAL NEEDS-BASED DECISIONS

Educators' Thoughts on Making Decisions About Accessibility for All Students

Linda Goldstone, Martha L. Thurlow, Kristi K. Liu, and Sheryl S. Lazarus

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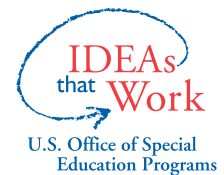
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Executive Summary

The purpose of this study was to gather in-depth information about teachers' experiences with accessibility features and accommodations in the classroom and on assessments. Expanded options for accessibility, beyond accommodations, has accompanied the increased implementation of technology-based assessments. Expanded accessibility includes options for all students—general education students, students with disabilities, English learner (EL) students, and ELs with disabilities. Similarly, the need to make decisions about accessibility features and accommodations has spread to all educators, including general education teachers, EL teachers, and special education teachers.

Asynchronous online focus groups were conducted with general education teachers, English learner teachers and special education teachers from DIAMOND project states. A qualitative cross-case analysis was conducted of the responses from the three groups of teachers. The results from the focus groups contribute to the project's development of guidelines for making informed decisions about accessibility features and accommodations. Three themes were identified.

Theme 1. The first theme was the accessibility features and accommodations decision-making process that teachers used for students. All three groups of teachers identified varied types of teams, though not all team members were always included in decisions. These types of teams included child study, response-to-intervention, problem solving, intervention assistance, student support, assessment, instructional leadership, teacher-based, and individualized education program (IEP) teams.

All teacher groups referenced intervention-type general education teams in their schools that were mostly associated with students who struggled with their academics. All groups of teachers also were members of these teams. This was particularly true in some states where special education teachers had other titles such as intervention specialist or collaborative teacher in general education teams and participated in making decisions for students without IEPs or 504 Plans. In some other cases, non-team decisions were made by individuals or external entities such as district, county, college test vendors.

Compared to other teachers, team-based decisions were less frequent for EL teachers. Still, overall teachers did not describe an actual process to decide accessibility features and accommodations other than identifying the types of teams and team member composition. Furthermore, comments from all teacher groups pertained mostly to determining accommodations on assessments, without reference to accessibility features or those used in instruction and formative assessments.

Theme 2. The second theme was the data used to make accessibility features and accommodations decisions for assessments and during instructional activities. All three teacher groups (general education, special education, and EL) shared in common the use of a variety of forms

of data that included scores from assessments, class observations, grades, and input from team members to decide accessibility features and accommodations in assessments and the classroom.

Each group of teachers also stated specific kinds of data that were more commonly considered for their students than for others. Compared to other teacher groups, general education teachers emphasized data monitoring and the use of scores from district and formative assessments, as well as the most important, observational data.

Special education teachers described student factors and their performance with accessibility features and accommodations that guided IEP team decisions. They also spoke frequently of their reliance on general education teachers as an invaluable source of information on accessibility features and accommodations in the classroom to inform their use in assessments.

EL teachers had less variety of data at their disposal. They used data primarily from an English language proficiency assessment and students' language status in school, regardless of grade level, mainly because there were relatively limited accommodations options. EL teachers typically did not mention documenting and monitoring ELs' use of accessibility features and accommodations or sharing data with other educators or across the school or district levels to make decisions on accessibility features and accommodations. Similar to special education teachers, EL teachers at times had the primary responsibility for gathering information and making the final decisions.

In addition to describing the types of data they used, all teacher groups mentioned documenting and monitoring data on accessibility features and accommodations that students used. However, teachers rarely stated how they collected, documented, and disseminated data nor any guidance they relied on from schools or districts.

Theme 3. The third theme was constraints teachers identified in making accessibility features and accommodations decisions. All three groups of teachers expressed that they did not have adequate knowledge to make decisions about accessibility features and accommodations and desired user-friendly guidelines with standardized usage for all teachers. Compared to special education teachers, general education and EL teachers commented that professional development on accessibility features and accommodations was not offered to them.

The three groups of teachers also had challenges in the provision and implementation of accessibility features and accommodations. General education and special education teachers reported that making decisions was confined to only the choices of accessibility features and accommodations embedded in online assessments and were more limited for math. All teacher groups expressed a concern about insufficient practice opportunities for students to learn how to use the accessibility features and accommodations in online assessments. General education teachers stated that computers were not always readily available or did not have an adequate supply for

students to use. Both special education and EL teachers stated that general education teachers did not always take the time to become familiar with and provide these supports to students.

Moreover, the inclusion model in schools impacted whether general education teachers provided supports in the classroom that were identified for students. The role of some special education teachers in general education classrooms as intervention specialists created challenges for these teachers in working with general education teachers. Inclusion efforts disrupted continuity in the provision of accessibility features and accommodations to students with IEPs. In the general education setting, it was expected that the general education teachers were responsible for providing accommodations to students. Sometimes this included support from the special educator or a paraprofessional. General education teachers expressed wanting to know how to provide and adapt accommodations in formative assessments and classwork. Both special education and general education teachers cited resource shortages, including staff to provide and implement accessibility features and accommodations to students.

Special education teachers expressed confusion between accessibility features and accommodations for general education students and students with an IEP or 504 plan. Specific challenges for special education teachers included the cumbersome request process for particular accommodations such as braille; accommodations stated in a student's IEP such as a calculator were not allowed in specific assessments; accommodations that were forbidden in specific assessments were not allowed for classroom use; and difficulties for younger students and students with particular disabilities to manipulate computer devices.

EL teachers mentioned there were even fewer options for EL students. Moreover, EL teachers expressed concern that once EL students exited from EL services, supports were not always continued in the classroom. Both special education teachers and EL teachers also wanted more consistency in available tools across different assessments.

Conclusions. The focus group results suggest that all teachers would benefit from user-friendly explicit guidance and professional development. The focus should be on:

- Precise and clear definitions of accessibility features and accommodations;
- A team-based process that includes all relevant individuals and collaboration to make decisions on which accessibility features and accommodations are appropriate for individual students;
- Ways to identify types of useful data to collect and how to document and disseminate the information;

- Ways to implement accessibility features and accommodations in all forms of assessments and classroom activities;
- Ways to provide enough computers and additional staff to support students with accessibility features and accommodations; and
- Ways to provide sufficient opportunities for practice tests for teachers and students to become familiar with accessibility features and accommodations.

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Introduction

Within the past five years, there has been a paradigm shift in thinking about accessible instruction and assessments (Larson, Thurlow, Liu, & Lazarus, submitted). This shift was enabled, in large part, by the implementation of technology-based assessments in place of paper and pencil testing. In response to Race-to-the-Top funding to support groups of states to develop new technology-based assessments, states worked on creating assessments that were accessible to all students, including not just those students who had disabilities or were English learners (ELs), but also for those who had no label, often referred to as “general education students.”

Individual states and groups of states worked to define tiers of supports that would serve as a framework for accessible assessments (e.g., PARCC, 2015; Smarter Balanced, 2014). Although most (but not all) groups of states developing assessments generated three tiers of accessibility, the names of those tiers differed, as did the specific supports included within each (Shyyan, Thurlow, Larson, Christensen, & Lazarus, 2016; Warren, Thurlow, Christensen, Shyyan, Lazarus, & Chartrand, 2016). This lack of consistency in assessment policies potentially created a challenge for those decision makers who were required to make decisions about assessments as well as how to provide for accessibility during instruction.

Previous work (e.g., Liu, Goldstone, Thurlow, Ward, Hatten, & Christensen, 2013) investigated decision makers’ understanding of assessment decision making for ELs with disabilities, a group previously ignored in much of the work on assessments. That work indicated that school and district practitioners questioned the validity of standardized tests, especially for ELs with disabilities, and expressed confusion about federal assessment policies. Several issues were identified by the focus group participants, especially related to the role of the Individualized Education Program (IEP) team in making decisions about assessments, the membership of that team, and the need for support and guidance from school and state education leaders on assessments and accommodations.

Even if it is assumed that the needs expressed by educators for making decisions about accommodations for ELs with disabilities had been met, the dramatic shift in thinking related to accessibility and who should benefit from new approaches to accessibility is likely the source of new (or additional) confusion. Not only is the IEP team charged with making decisions for students with disabilities and ELs with disabilities, but EL educators must make decisions about the accessibility needs of ELs who do not have disabilities. Further, general educators must evaluate the needs of all their students without disabilities or who are not ELs, so that if they have accessibility needs, those can be met as well. District and school implementation of intervention approaches such as Response to Intervention (RtI) and inclusion efforts also typically involve all educators in a school and make the accessibility decision-making process for all groups even more important.

Thus, it is important to gather information from three groups of educators (special educators, EL educators, and general educators), and about decisions for four groups of students (students with disabilities, ELs, ELs with disabilities, and students who do not have disabilities and are not ELs). Gathering this information was one goal of the Data Informed Accessibility – Making Optimal Needs-based Decisions (DIAMOND) project, a collaboration of nine states and the National Center on Educational Outcomes (NCEO). Information on the perspectives and experiences of educators faced with the new accessibility paradigm, along with other activities, were designed to create a foundation of knowledge to support the development of training modules for educators.

Focus groups represent a viable approach to gathering information from educators located in multiple states (Krueger & Casey, 2009). Based on the success of the asynchronous online focus groups used by Liu et al. (2013), a similar focus group approach was used to gather information on educators' thoughts about and experiences with accessibility and accommodations for all students.

This report describes the asynchronous online focus group activity of the DIAMOND project. The goal of conducting the focus groups was to gather in-depth information about teachers' experiences with accessibility features and accommodations in the classroom and on assessments. The results from the focus groups contribute to the project's development of guidelines for making informed decisions about accessibility features and accommodations.

Methods

Volunteers

DIAMOND Project research staff at NCEO conducted the focus groups in November and December 2016. The project intended to hold one focus group in each of the nine states collaborating in the DIAMOND project. The nine states were Alabama, Connecticut, Ohio, Maryland, Michigan, Minnesota, U.S. Virgin Islands, West Virginia, and Wisconsin. The asynchronous online format of the focus groups enabled teachers located in different parts of their state the flexibility to participate at their convenience.

Because the topic of each focus group was accessibility features (available to all students) and accommodations (available to students with disabilities and sometimes ELs) for both class instruction and assessments, the criteria for the selection of volunteers for the focus groups were broad, including that the volunteer: (a) identified his or her role as a teacher, (b) taught in any of the K-12 grades, and (c) had experience in making decisions about accessibility features and accommodations. To ensure diverse representation in each state, attempts were made to include four general education teachers, two EL teachers, and two special education teachers across all

grade levels and geographically dispersed in rural, suburban, and urban areas. A larger number of general education teachers was selected in each state because less is known about the participation of these teachers in making decisions about accessibility features and accommodations.

Recruitment

Research literature (Krueger & Casey, 2009) recommends that face-to-face groups should have about five to six participants. Hatten (2014) suggests that the online focus group should be medium in size, ranging from 10 to 13 participants. For the DIAMOND project, the desired focus group size was determined to be seven to eight participants per focus group.

Volunteers for this activity were recruited from a list of educators in each of the nine states who participated in an earlier online survey activity of the DIAMOND project (see Thurlow, Larson, Lazarus, Shyyan, & Christensen, 2017). These individuals indicated that they were also interested in participating in an online focus group. NCEO research staff contacted those volunteers who met the study criteria via the e-mail address they had provided in the survey. Identified teachers who responded to the e-mail contact confirmed their continued interest in participating in a focus group.

The DIAMOND survey, in which teachers first indicated their interest, had been conducted during the previous school year (Spring, 2016). Thus, e-mail information for some of the teachers was returned with an indication that the e-mail address was no longer active. As a result, a second wave of recruitment was conducted to obtain more teachers in some of the states.

For the second wave of recruitment, NCEO requested several state departments of education to identify additional teacher volunteers by e-mail through teacher networks or listservs, or through other approaches the state believed was best. NCEO provided the invitation e-mail that states could use to disseminate to teachers. The invitation included an e-mail address to use to contact research staff if they were interested in participating in the online focus group. Research staff then e-mailed these teachers questions that were based on the original selection criteria (what they taught, which grades, which geographic locale they were in, and whether they made accessibility features and accommodations decisions). Teachers meeting the selection criteria were recruited until the quota of eight volunteers in a focus group was met. Any surplus of teachers was asked if they wished to be placed on a wait list. All teachers who participated in a focus group received a \$100 VISA gift card.

Procedures

The states of Alabama, Minnesota, Ohio, West Virginia, and Wisconsin each had one focus group with eight teachers per group. The attrition rate was minimal, with only one teacher from Minnesota having to withdraw from participation due to family reasons. One focus group included a combination of two states, Connecticut and Michigan, with a total of seven teachers. Maryland and U.S. Virgin Islands had insufficient numbers of teachers to form either focus groups or a combined focus group. Thus, there was a total of six focus groups with a final total of 46 participants. Table 1 provides additional demographic details about participants. The majority of teachers were female (44%), general educators (43%), from rural areas (41%) and taught elementary school (43%).

Table 1. Focus Group Participants' Demographic Characteristics (N = 46)

Gender	Position	School Locale	Grades
Females, (44) 96%	General Education (20) 43%	Rural (19) 41%	Elementary (29) 63%
Males, (2) 4%	ESL/Bilingual Education (9) 20%	Suburban (14) 30%	Elementary-Middle (3) 7%
	Special Education (17) 37%	Urban (12) 26%	Middle (4) 9%
		County (all) (1) 2%	Middle-High (3) 7%
			High School (7) 15%

All communication with teachers was through e-mail. Teachers were sent the dates for the focus group in their state and confirmation of their availability to participate was received. Within a week prior to the start of each focus group, information was sent to each teacher with his or her log-in name, password, and a personal pseudonym (a tree name represented in the state).

Teachers were provided three-part instructions including necessary web links. First, they completed a demographic questionnaire and mailing address for the gift card. Second, they logged on with a user name and password to the focus group platform. Third, they checked into the platform to ensure they could access and navigate the forum without technical difficulties prior to the start of the focus group. The information also included directions and expectations for participation in the focus group. Each focus group was conducted over one week with one to two groups per week.

For the focus group discussion, the NCEO team developed seven questions that were progressively narrower in topic (Krueger & Casey, 2009). Each morning before 7:00 a.m. the moderator posted in the forum one to two questions (see Appendix A for a complete list). The moderator then informed the participants that the questions were posted and ready for their responses. A

list of definitions of accessibility features and accommodations (see Appendix B) was provided as a web link in the platform that was downloadable for participants to use as a reference during their discussions. Participants were also encouraged to check in as often as possible to generate interaction by reading others' posts and adding comments or questions. They were also sent reminders each evening to post their responses. The moderator read all participants' responses and posed follow-up questions during each focus group to encourage interaction and request clarification and additional details. The forum was available to participants 24 hours each day.

On the day after each focus group discussion was completed, participants were asked to voluntarily complete an exit survey anonymously. It consisted of three closed-ended questions on their experience with the focus group, requiring approximately less than one minute to complete. There were 44 responses to this survey, out of 46 participants (see Appendix C).

Analysis

A cross-case qualitative analysis (Miles, Huberman, & Saldaña, 2013) was completed of the transcripts of the focus group discussions. Data from the discussions were grouped separately into the general education, special education, and English learner teacher groups for comparison. Data were refined by group using an inductive iterative process that included extracting, coding, and noticing patterns in the data to identify salient themes.

The lead researcher created a code list with definitions of the codes and selected a sampling of transcript data for coding. An electronic generator was used to randomly select paragraphs for coding. A team of three researchers read through the data, independently coded responses, and discussed results until 90% coding agreement was reached. When disagreement occurred, discrepancies were discussed until at least two of the three researchers agreed. To facilitate this process, MS Office Word was used to organize the codes into groups.

Three themes emerged from a qualitative analysis of the focus group transcripts across all the DIAMOND states. The first theme was the accessibility features and accommodations **decision-making process** that teachers used for students. The second theme was the **data teachers used** to make such decisions for assessments and in class activities. The third theme was **constraints teachers identified** for making accessibility features and accommodations decisions.

In this section the discussion for each theme is organized by teacher group: general education (GE), special education (SE), and EL. Excerpts from each of the three teacher groups are provided as examples to illustrate each theme. In selecting examples, an attempt was made to reflect the gist of the topic. The number of quotes does not necessarily reflect the number of comments that were made on the topic. To aid the reader in understanding the range of teachers making comments, individual teachers are indicated by group (GE, SE, EL) and by the number of the teacher within the group (e.g., GE1, GE2, etc.).

Theme 1: Decision-Making Process

The accessibility and accommodations decision-making processes that teachers described were both team-based and made by individual teachers. The member composition of a team depended on the type of team. These teams varied with the type of student under consideration, such as students with disabilities, ELs, and students in general education. Teams also varied with the type of school program in special education and general education such as inclusion and Response to Intervention (RtI) programs. However, with or without the existence of teams, there were specific individuals or teachers who held the primary or sole role in the decision.

General Education Teachers' Thoughts on the Decision-Making Process

General education teachers identified a variety of teams that contributed to the decision-making process. In addition to IEP teams, they identified a large number of other kinds of teams in which they participated that contributed to the decision-making process. Each of the teams is identified in this section.

IEP Teams

General education teachers typically described the decision-making process of accessibility features and accommodations by describing the member composition of the teams. As shown in the comments here, they described the IEP team for students with disabilities.

Accessibility and accommodations recommendations for assessments are decided by the IEP team.... The IEP team consists of the school administrators, counselor, special education teacher, district special education coordinator, parent, student, and referring teacher. These individual teams make decisions based on the identified needs of the students. [GE4]

The normal decision-making process for accessibility and accommodations in my school involves the Director of Special Education, case workers, parents, and main-stream teachers. The accommodations for the classroom and testing are usually chosen during the annual IEP review for students with an IEP. [GE41]

In addition to IEP meetings, general education teachers had ongoing interactions with special education teachers. In the course of the interactions, general education teachers' recommendations could influence adjustments in the accommodations, not only for assessments, but also in the classroom.

The special education teachers and classroom teachers work closely together and are able to meet weekly about specific students...If the student has an IEP, the special education teacher and I will communicate about accommodations that are needed for an assignment or for an assessment... We have had to have meeting with parents after an IEP is put into place because we feel that changes need to be made for the success of the student. [GE43]

As a regular education teacher, I am constantly working with our special education department to design and develop proper accommodations for our students to continue to learn at a high level. [GE42]

Even though the general education teacher was considered to be an IEP team member, the weight of their input was not necessarily always given equal import as other team members. For others, communication with the special education teacher was limited to only during an IEP meeting. The topic of discussion focused mainly on accommodations in assessments. Moreover, the final decision resided with the special education teacher.

As a general education teacher, the only input I have into this process would be during an IEP meeting. However, we generally only discuss testing accommodations for students with IEPs. [GE34]

When making recommendations for assessments I speak strictly to the special education teacher. Sometimes my accommodations are put in place other times they are not. This seems especially true when it comes to the state test. There have been times when I felt that it would be best if a student did not test with the class, due to behaviors, and that was dismissed. I have always been told the reason for this is because their IEP is not written that way... Both myself and the special education teacher make recommendations, however the special education teacher has the final say. [GE32]

Students who were in kindergarten through second grades had not yet participated in state assessments. Nevertheless, teachers still collaborated to decide accommodations in the classroom.

As a K teacher, students who have an Early Childhood IEP do not come in with accommodations for standardized tests because they are simply too young. To familiarize ourselves with these students, we meet with the Early Childhood SPED team the spring before these kids come to Kindergarten. As a team (usually the K teachers, the SPED teachers at our school, and the Early Childhood teachers) we determine any specialized needs or accommodations the student might need. That's an important word, *might*. Sometimes we think the kids might need something, but they have matured

enough that they simply don't need anything specialized. This process is very collaborative and responsive.... The fact that they haven't taken any formal assessments before this school year, we as a team sometimes guess at what accommodations we think a student may need. (I am speaking specifically about accommodations needed for taking assessments.) Their IEP does have other accommodations listed and tend to be more social emotional goals or goals for learning (provide movement breaks, etc.).... Because an Early Childhood IEP doesn't specifically write in accommodations for assessment, we as a team discuss options for the kids: maybe they need a separate testing area, maybe they just need an adult in the room to redirect them. Sometimes we even provide them with extra support early in the year and realize it isn't really necessary. These types of decisions will be discussed and added to their IEP at reevaluation time. [GE16]

In a rare mention, one teacher gave a more detailed description of a step-like process that went beyond just identifying the members of an IEP team.

The process in our school is a very simple process. We first have meetings with the student, parents, regular education teachers, and special education teachers to determine what the students' strengths are (e.g., writing, talking, hearing, visual, etc.). We then brainstorm ideas to help with areas of deficiency to improve success. After a plan has been made, we implement the plan and then review the plan after an amount of time to determine its effectiveness or if adjustments need to be made. In conclusion our process for accommodations is usually a case-by-case basis and we work with plans that benefit individuals as opposed to large groups. [GE42]

General Education Teams

In addition to IEP teams, general education teachers described their role in eight other types of general education teams that made decisions on accessibility features and accommodations, particularly for those students who struggled with their academics, whether or not they had IEPs. These included pre-referral teams with different names such as Child Study Team, Response to Intervention, and Problem Solving Team in their schools.

Child Study Team (CST). Some general education teachers referred to a Child Study Team as the accessibility and accommodations decision makers. The following example shows that this team considered student referrals for a special education program or a 504 plan, which may have included decisions for assessment accommodations.

We have a child study group that not only works on referrals for Spec Ed, but also 504s.... The group is the building principal, two counselors, four Spec Ed teachers

and myself. Besides the placements, we go over IEP and 504 accommodations for testing.... I am involved with the process of accommodations and testing both the state [content], but also the [district] test that is given one to three times a year. [GE19]

Response to Intervention (RtI) Team. General education teachers also described the role of the RtI team in making decisions about accessibility features and accommodations for both instruction and assessment. The RtI team was similar to the IEP team in its members, with the use of individualized plans, and functioned to decide accessibility features and accommodations for students typically without IEPs.

The accessibility features and accommodations decision-making team at my school consists of the RtI team and the IEP team. Those who are members of these two teams are the interventionists, general education teacher, special education teacher, instructional coach, counselor, and administrator. There is an 8-week period of data collection to ascertain existing learning gaps. They meet to determine the best and most appropriate ways to meet the needs of individual students based on their individualized education plans. The team's function is to ensure students' needs are addressed as it relates to the expectations for them to perform on new computer-based assessments. [GE1]

Sometimes communication was more informal instead of team-based among the general education, special education, and EL teachers in a rare example of ELs with disabilities.

Since we begin standardized testing within the first few weeks of school [district testing], the special education case managers and EL teachers let me know what accessibility features and accommodations my students have used in the past. If those features and accommodations are part of an IEP, we go with them until the IEP is revised. The EL teacher lets me know what was done the year before.... The EL and special education teachers inform me about accessibility features and accommodations very informally through a one-on-one meeting or, occasionally, via e-mail. [GE17]

This also occurred on occasion about ELs in which the general education teacher was informed after other educators met together.

The EL teacher and RTI coaches meet together and discuss all the EL students that will take standardized tests. After they meet, one of them meets with me (and other classroom teachers) and shares what they have come up with for accessibility features and accommodations for each of my students. I then have the opportunity to let them know if I'm in agreement with their decision and can also add any accessibility

features or accommodations that they haven't mentioned if I believe it could prove helpful to that child. [GE18]

Problem Solving Team/Problem Solving Process (PST). General educators also described the role of the Problem Solving Team in making decisions. The PST, like the RtI team, used test-based interventions to decide about including accessibility features and accommodations. Similar to the RtI team, the PST included a special education teacher and a collection of data during a trial period with different strategies.

For students who do not have an IEP, most of the time we hold PST meetings for behavior and usually will come up with a behavior check list...and holding the student accountable for his/her actions. Students who are struggling academically, sometimes will be put into small intervention groups.... PST is [a] problem solving team: This consists of myself, the classroom teacher, as well as special education teachers, reading specialist, principal and school psychologist. Once we have a meeting about a student, we decide what accommodations will be implemented or what strategies we will try with a student and then we usually will have a follow up meeting anywhere from 4-6 weeks later. [GE43]

Intervention Assistance Team (IAT). Another kind of team mentioned by general educators, the Intervention Assistance Team, was a building-wide team designed to support student achievement. The IAT might be led by a general education teacher working with a variety of other educators including the special education teacher.

...I am now the lead of the IAT team. It is my job to organize the meetings for each child going through the IAT/RtI process, provide the proper paperwork, meet with the teachers to bounce ideas on interventions back and forth, and work with the SPED teachers on observations.... As the teacher it is our responsibility to come up with almost all of the activities that the student needs to be successful... to provide the students with work on their level and provide the extra support—one on one or small group support—to make sure the state standards are still being addressed. [GE27]

Student Support Team (SST). Some general educators also mentioned the Student Support Team. In the examples here, special educators mentioned that the SST addressed ways to support learning for ELs. The team included discussions with the EL teacher and parent on ways to accommodate and support students to minimize referrals to special education. There was flexibility for the general education teacher to make accessibility features and accommodations changes without input from other team members.

As far as the procedure for accommodations for EL, I met with the Student Support Team, along with the parent and discussed any needed accommodations for the child. The team and I agreed on a number of strategies to best serve the child. If I find that any do not work, I can meet with my principal and change them. I have an EL teacher that I work closely with as well. This is done yearly.... Our SST meets every 6 weeks so that students are followed up on by the team. Students may need to be monitored more or may need new strategies.... The role of the SST is to assist the teachers in finding ways to meet the needs of struggling students. They have a treasure box [full] of resources to assist our staff with. The idea is to meet the needs if possible so that we are sure that we have tried all resources before we refer for special education. [GE2]

In our district each school has an SST (Student Support Team) made up of a classroom teacher, the principal, and a related service provider. Teachers who feel that students need support or accommodations recommend the student for review by the SST. The teacher or teachers would bring evidence and work with the SST to make accommodations for the student for this school year. These accommodations would follow the student for the year and are reviewed yearly if the student continues to be enrolled in that particular school. [GE25]

Teacher-Based Teams (TBT). Another type of decision-making team mentioned by general educators was the Teacher-Based Team. One teacher described the TBT, which was a part of the IAT/RtI process, as a place for classroom grade-level teachers to discuss ways to support students, including with the use of accommodations.

...TBT stands for Teacher Based Teams. They are meetings that are held between teachers in the same grade level and an administrator to discuss effective strategies, data, and other helpful classroom tips.... We have a list of accommodations that teachers are encouraged to try during the IAT/RtI process. It is also something that is discussed at TBT meetings and meetings after every tier of the IAT/RtI process is completed. [GE27]

Assessment Team (AT). An Assessment Team was another type of decision-making team general educators mentioned. In the excerpt below, the AT did not function to make pre-referrals of students to a special education program, but sometimes did include a special education teacher. This team considered accessibility features and accommodations in the classroom and on state assessments for any student with or without an IEP.

I make accessibility and accommodation recommendations for assessments as part of our assessment team. The team is made up of our data specialist, high school principal,

high school counselor, and a teacher representative from most [of our] departments, including special education. We discuss certain student needs, including accommodations listed in IEPs, student assessment history (i.e., if a student has had success in a certain testing environment for classroom assessments, we will try to duplicate that environment for state testing). [GE40]

For mainstream students, we have an assessment team that meets monthly. This team determines the needs for universal features for standardized tests, and determines if there are any other accommodations needed for students with special situations, but who don't have an IEP or 504 plan.... One example of a student with a special condition is a student with a health concern that caused her go to the bathroom often. She was allowed to take a break whenever she needed, and the time was "paused" while she was gone. She also tested in a room by herself so she wouldn't feel self-conscious about leaving during the test, and the other students weren't distracted by her leaving the room. [GE41]

However, for other general classroom teachers, they made the individual decisions on accessibility features and accommodations in classroom activities that were separate from what the assessment team decided on state assessments.

When determining appropriate and effective classroom accessibility features and accommodations I only make decisions in my own classroom.... What the assessment team decides to provide for students on state assessments doesn't affect what I have done in my classroom. However, what is done for students with IEPs in classrooms generally correlate to the accommodations they have on assessments. [GE44]

...universal features can be decided by grade level teachers. For example, I may take a general education student in a small group for testing if it would benefit from reduced distractions. [GE14]

Instructional Leadership Team (ILT). Another decision-making team, mentioned by a single general educator, was an Instructional Leadership Team with various individuals including general education and special education teachers. This team used school-level data to make accommodations decisions for students. Though the types of accessibility features and accommodations were similar to those of the RtI and IEP teams, the ILT differed in its implementation process.

Within my school, the decision-making process is led by the Instructional Leadership Team, RtI, and IEP teams. The Instructional Leadership Team consists of the school administrators, school counselor, special education teacher, central office supervisor,

graduation coach, and four core teachers (ELA, math, history, and science). This team analyzes school data to make an informed decision about modifications and accommodations for students.... The Leadership Team meets bimonthly and the focus is school data. The team discusses what is effective and non-effective as it relates to accessibility features and accommodations implemented in the building. The accessibility features and accommodations are similar for the three teams. The only difference is implementing the accessibility feature or accommodation that works best for the student being serviced.... The teams use the same sources that are available for students. As a team, the accessibility feature and accommodation is recommended and a process for monitoring the effectiveness occurs at the beginning of the grading period, mid-grading period, and end of the grading period. Adjustments are made accordingly. [GE4]

Special Education Teachers' Thoughts on the Decision-Making Process

Special education teachers addressed several topics when asked to describe the accessibility and accommodations decision-making process. These topics were with two types of teams: IEP teams and non-IEP teams. Within IEP teams, topics included the input provided to the teams by various individuals, the team process, and the process for classroom decisions. Within non-IEP teams, special education teachers identified several types of these teams.

IEP Team

Several special educators described the central role of the IEP team in making accessibility and accommodations decisions for students with disabilities. They also described the input provided by various team members.

The decision-making process for sped students involves lots of different people. The accommodations and accessibility features that are written in the IEP are suggested by general education teachers, parents, the counselor, and the special education teacher.... After the draft IEP is ready, the general ed teacher, sped teacher, administrator, and parent meet to finalize and change anything that needs to be changed. [SE8]

Although they tended to use the term "IEP team," occasionally another term such as "Planning and Placement Team" was given, but still comprised similar team members.

The Planning and Placement Team is what our state calls the IEP team. It is comprised of the student's general education teacher, special education teacher, an administrator, the parent(s), speech language pathologist, etc. We would make decisions for all special needs students who will be taking the test. [SE14]

Input provided by team members. Special educators specifically mentioned input provided by special education teachers, general education teachers, and parents and students, as well as external input.

Special education teacher input. The special education teacher was also known by other titles such as a collaborative teacher (CT), as indicated by this comment.

The CT is really the special education teacher, just with a different title, but they play the same role on the IEP Team as any other special education teacher.... If at any time a parent, teacher, or the Collaborative Teacher feels a student needs additional accommodations and/or a behavior plan, an IEP Meeting will be scheduled. At this meeting the following stakeholder's presence would be requested: principal or designee, special education teacher, general education, the parent, and a liaison of the parent can attend, if the parent desires to have a liaison. [SE7]

The special education teacher was also the intervention specialist (IS). With changes in the district's school model to inclusion for all students, the IS speculated that her input would eventually expand to other students who did not have IEPs.

The Intervention Specialist [IS] does make accessibility and accommodations decisions only for students on IEPs.... This is the first year that my district has moved to full-inclusion for all except the very lowest students with intellectual disabilities.... I expect that Intervention Specialists will remain the decision makers for students with IEPs. We may now have input into decision making for other students as well. [SE30]

But many special education teachers indicated their role in accommodations decisions was confined to an IEP team that did not extend into other contexts. Nevertheless, decisions were team-based and not solely determined by the special education teacher.

I only deal with IEP's because I am Special Education but our committee makes the determination which accommodations are needed for our students. [SE37]

However, notwithstanding a team-based structure, special education teachers, often as case manager and lead of the IEP team, claimed themselves as having the primary responsibility to make the final decisions on accessibility features and accommodations.

As a special education teacher I determine the accessibility and accommodation recommendations for assessments. Generally, as the case manager I know my students and their strengths and weaknesses as far as ability level. This helps me determine what type of support the students need. When I make my determination I take into account

information I receive from general education or other special education teachers that work with the student. I always speak to them prior to creating the IEP. [SE38]

By law, the whole IEP team, which consists of, at minimum, a general education teacher, a special education teacher, a district representative, and a parent, is able to make decisions on the IEP. The IEP is only a draft until it is signed, so changes can and are sometimes made right at the table during the meeting. And I always make sure that parents understand this fact. However, the truth of the matter is that the special education teacher is really the driving force behind an IEP. [SE30]

General education teacher input. Special educators often commented that general education teachers had minimum participation and influence in the decision-making process.

Classroom teachers are involved only to a small degree in the decision making for testing accommodations for students with IEPs. In my district, most Intervention Specialists [special education teachers] will ask a general education teacher's opinion, but, in general, it feels like once an accommodation is listed on an IEP for a student, it is there for a long time, just as a matter of course. Usually an assigned accommodation stays in place until an alert Intervention Specialist questions things or until a school psychologist questions an accommodation during an Evaluation Team Report. [SE30]

Although it may not have been common for general educators to participate, a few special education teachers asserted the importance of obtaining input from general education teachers. Addressing the needs of students necessitated a team approach that acknowledged all voices

My regular education teachers are totally involved in the information that I input in the IEP writer. I wish it were as easy as filling in the blanks, but I contact each of the regular education teachers that have my student and get their present levels, what is working, what is not, etc.... They are very involved in what I write and I do not force my opinions on anyone.... In my school, we are a team... accommodations are chosen by the whole team. Yes, sometimes we may disagree but no one is ever left out.... I consult with my committee (regular education teacher, chairperson, parent) and other teachers that have the student before writing the IEP.... I like to involve my regular education teachers. They play an important role, so they should be involved in decision making. My fellow teachers do trust my judgments and usually agree with my decision. My word is not gospel, so everyone that is involved with the student's education should be involved in choosing the most appropriate accommodations. [SE37]

I would say the accessibility and accommodation determination process varies within a school and within our school district. When I first started working in this field, most if not all of the IEP was written with very little input from their classroom teacher. I felt this was ineffective and quite biased. Since I've been working here there has been a strong team in our special education department formed. Our goal is to incorporate a number of different perspectives (e.g., parents, all teachers who work with the student, speech pathologist, social worker, guidance counselor, etc.) in this process so we can determine as a team what best meets the need[s] of a student. [SE7]

A special education teacher mentioned that special education and general education teachers were able to make decisions about universal features on behalf of all students.

Both the classroom teachers and special education teachers are able to decide on and implement universal features. [SE14]

Parent and student input. According to special educators, suggestions from parents and older students were especially invaluable for deciding accommodations. Students in the upper grades particularly tended to have had more experience and knew which accommodations were most useful.

The high school special education teacher usually has the IEP written in advance, and all members present at the meeting discuss and either agree or make changes. Parents are very involved in the process, and at the high school level, students are very involved too. At this stage they know what helps them and what doesn't. Testing accommodations are requested based on what the student wants/needs, and what the parent and teachers believe would allow students the opportunity to demonstrate their strengths, knowledge and academic skills.... Most students at the high school level that have an IEP have had one for several to many years.... The same procedure applies to 504s other than, they are not written in advance, there is less paperwork involved (more of a checklist), and often times, their needs are very different than students with an IEP. Many of our 504 students have ADHD or a medical issue. [SE11]

Despite the test being unlimited time, we may have a student who needs more time than typical and may be nervous if he or she feels the class is all finishing and they have many more questions to answer. We will also ask the student their preference. A student may be reluctant to leave the classroom and this would cause more stress for them. [SE14]

In some cases, special educators reported that input from parents had greatly influenced not only decisions about accessibility features and accommodations, but also student participation in assessments.

We also use parent input/student input because if we find that the parent or student don't value the assessment, we are more likely to ask if they want to opt out of the assessment.... Parents will often opt out for educational or political reasons. Most often it is for the [state content] assessments. They will also choose to not have extended time if they believe or the student admits that he/she won't take a standardized test seriously. For example, if the student has no interest in attending college yet needs extended time, we won't write in extended time into his/her IEP and seek accommodations from the college board, because the student will end up sitting in a room longer with a test that he/she doesn't care about and isn't going to put a good effort into. [SE11]

External input. Although IEP teams functioned to determine accessibility features and accommodations, the ultimate decision sometimes resided with external entities. The special education teacher did not find this agreeable; the teacher was more familiar with the students to make relevant decisions than at the county level.

The decision for accessibility features and accommodations at the school where I work as a Special Education Teacher is made somewhat with the multidisciplinary team.... Our multidisciplinary team consists of the general education teacher, special education teacher, parent and a school administrator (principal or vice principal). This team makes decisions for students who have been found eligible for support, modifications, and specialized instruction to address learning differences. The multidisciplinary team is the IEP team.... However, the county leadership reserves the right to reject or mediate any accommodation that they feel may be unwarranted or make the county look like they are allowing a large number of students to use it during testing.... The county leadership... is the special education department of our county. There is an Elementary Supervisor who often becomes involved in the decisions for students when they are seen as outside what that office sees as common for most students with an IEP. They have information from the state department that is then analyzed and provided to the teachers for use in decision making for accessibility features and accommodations for students they write IEPs for at the school level. This is a concern for me as a special education teacher because I do not always feel that they know the student the way the team does and they are not in attendance [at] the meetings. We have to call for permission for specific items we want to consider. [SE39]

Unlike the use of accommodations in the classroom, for accommodations in more formal standardized state assessments special requests were required to be submitted to the state when students needed less common accommodations. The state was the final authority to grant or deny the requests.

Accommodations for students with IEPs and 504 plans are decided at annual review meetings using a state generated form. Typically, the case manager will select what the student will need to be successful, propose the supports to the team, and it will be discussed.... The state does require a special petition and checklist to be filled out for any special education student receiving the most intensive supports such as Read Aloud of Passages. [SE15]

...although students use the accommodations for classrooms, it is a little different for state tests. State assessments have specific requirements for a student to qualify, and specific options such as an audio produced version. [SE13]

For high school students who participated in pre-college entrance exams, the special education teacher submitted requests for accommodations to test vendors on behalf of the students. Test vendors had the final say on approval or rejection of accommodations.

As a special education teacher, I am responsible for writing IEPs for all juniors and seniors at my high school.... I am also the SSD coordinator [Services for Students with Disabilities] for the [Developer of the college-admission test] and am responsible for requesting accommodations for all students at the high school 9 to 12 that need accommodations for district and state assessments.... For college-bound students taking the [college-admission test], accommodations are decided by the [developer of the college-admission test].... I have a role at the high school, that any/all students with disabilities who will be taking the standard state test and need accommodations, to request those accommodations through [Developer of the college-admission test].... [Developer of the college-admission test] is the agency involved with [college-admission test] to decide which accommodations to approve or not for each student. [SE11]

Team decision-making process. The majority of special education teachers identified were on IEP teams. They did not describe a structured process with criteria to guide the team's decision making about accessibility features and accommodations for students. This excerpt reflected somewhat the complexity involved to do so since each student's needs were unique.

This is decided by the team during the IEP meeting. Accommodations and accessibility for state testing follows the IEP accommodations that are utilized for assessments

throughout the year. It's difficult to answer a specific "how" this decision is made. There are a lot of factors that go into the decision-making process. If a student has trouble focusing, due to their disability, it may be decided that they need small group testing. Students who struggle with reading comprehension may need assessments in the areas of math, science, social studies, read aloud. Ultimately, as a team, we decide what best meets the individual needs of each individual student, so that they are able to best demonstrate what they know for a given assessment, without the hindrance of their disability. [SE7]

Classroom decision-making process. Special education teachers tended to talk more about accessibility features and accommodations for assessments instead of in the classroom. There was one exception in which the class was pointedly considered.

As part of my job I must determine which accessibility feature or accommodations are necessary to create success for the student. This does not mean students are given these simply as a way to make their work easier, but to create an environment that makes the curriculum more accessible. [SE38]

Student grade levels. In the general education classroom, an intervention process was used for students in the lower grades who did not have an IEP and had not yet participated in summative assessments. This process entailed getting input from individuals similar to those on an IEP team, including general education teachers, to determine whether students needed accessibility features and accommodations. In contrast, for the older students in a high school where inclusion was the school model, interventions were not considered at all as a worthwhile investment.

As far as general accommodations, we currently have a pyramid of intervention for students at the younger grades who are struggling. Through this process general education teacher(s), special education teacher(s), parents, the school psychologist, and/or other needed staff members (speech pathologist, social worker...) attend meetings where they discuss student progress and create a plan of intervention which can include remediation and accommodations. Through this process and several to many meetings, it is decided if what they are doing or have done is working, or if a student needs further evaluation for special education. It works at the elementary level. A student struggling with reading may improve with reading intervention. There is time and there are resources available.... At the high school level, we have "lab" classes for English and math for students that struggle. In these classes students get help with their general education classes and work to further develop their skills. Other than that, there is no time for any kind of intervention. We have had other classes in the past, but at this level, interventions do not seem to make much of a difference. If a student has had a reading disability, even with interventions, progress at improving

reading skills is slow. Students with an IEP that are in general education classes have a Study Skills Class with a special education teacher, but at this level we focus on homework, preparing for tests, graduation, organization, and transition skills. There is not enough time for remediation. [SE11]

We, as an IEP team, make decisions about accessibility and accommodations for assessments as well as daily classwork.... We discuss accessibility and accommodations at every IEP meeting as it relates to their school day. Because I usually teach first and second graders, statewide assessments aren't applicable. [SE46]

Non-IEP Teams

Besides IEP teams, special education teachers also talked about general education teams that made accessibility features and accommodations decisions for general education students, particularly those who were struggled with their academics. These included grade-level teacher and pre-referral teams that considered students for a special education program.

Grade-level Teacher-Based Team (TBT). Grade-level general education teacher teams such as the Teacher-Based Team, included the special education teacher. Team members determined accessibility features and accommodations for students, with or without an IEP or 504 Plan, who were struggling in general education classes.

We make decisions as a team. If the student is not being taken to the IAT team...we will look at accommodations during our teacher based team (TBT) meetings. The team includes the general education teacher, principal, special education teacher, Title I teacher, sometimes the school psychologist and if the student has an IEP the district special education director.... Typically a student is first discussed in TBT meetings that are held monthly to see if all teachers share similar concerns or if the student is successful in one classroom over another to see what is being done differently and what could be done. [SE31]

Pre-referral Teams

Several types of pre-referral teams were identified by special educators. The special education teachers generally contributed to these teams.

Intervention Assistance Team (IAT). If students without an IEP or 504 Plan continued to perform in the classroom without success, they were referred to general education pre-referral teams. These pre-referral teams had different names but similar members, including both the general education and special education teachers. One example was the Intervention Assistance Team.

Whether the consideration of accessibility features and accommodations carried over from the TBT to the IAT process was not evident.

If the TBT team is not able to successfully help the student then the student would be sent to the IAT team. The IAT team includes everyone from the TBT team and also the school psychologist or special education director, guidance counselor, parents, and Title I teacher if the student is in a grade that is served by Title I. Through the IAT team we are able to provide more specific interventions and even schedule changes if needed. This is where it would also be decided if a 504 would be appropriate or if there need to be further testing done for an ETR (evaluation team report). [SE31]

In contrast, the IS, who was the special education teacher, cited a district manual that provided guidance as a means to facilitate the decision-making process.

In our county we have three ways that a student can access accessibility and accommodations recommendations. One of course is to meet the criteria for support, modifications and specialized instruction for a learning difference with an Individualized Education Plan. The second would be with a 504 for a limited or chronic disorder that is documented by a physician. The third way is for a student to be referred to the Student Assistance Team due to difficulty with their grade level curriculum or behavior concerns.... I am the Intervention Specialist on our school IAT [Intervention Assistance] team. So for students who are not on IEPs but their teacher feels they would benefit from accessibility features or accommodations they are brought to the IAT team. As the Intervention Specialist on the team I am very familiar with the accommodations and accessibility features from work on student IEPs in testing grades. When the new manual came out the district special education director and I sat down to go over the manual to make sure we were making informed decisions. [SE39]

The IS further explained how this imposed a reliance upon general education teachers to be responsible for providing accommodations to the student in the classroom.

Before a student who is not on an IEP or 504 plan starts to receive any kind of accommodations the [general education] teacher has to commit to trying the accommodation out in their classroom and using that accommodation during all testing situations.... If they are going to the IAT then we will look at accommodations at our IAT meeting. First we look at the student and what accommodations have been done in the classroom with a reasonable amount of success. If we can duplicate those accommodations we start there. If the student needs more accommodations we will look at what other options are available. [SE31]

Problem Solving Team (PST). Another pre-referral team in a state was the Problem Solving Team of the RtI program. The team could decide accessibility features and accommodations for general education students who had academic difficulties. It was not specified if a special education teacher was a member of this team.

Students identified as “at-risk” in the general population are referred to the Problem Solving Team.... It is the team that represents our RtI process, which stands for Response to Intervention (our state’s pre-referral process).... This team analyzes data and implements interventions to support the child and their individual needs.... The PST can decide on accessibility features/accommodations for the child throughout the process.... Typically, interventions/accommodations are not removed, but added to, to provide more help and guidance to the child along the process. Tier 3 is just the final step before a referral for special education evaluation is made. [SE7]

Student Support Team (SST). In other schools, the pre-referral team was known as the Student Support Team, also of the RtI program. Similar to the IEP team, members included both special education and general education teachers.

Our school has monthly Student Support Team meetings that include the school psychologist, director of special ed, principal, Title 1 teachers and classroom teachers. This is part of the RtI process.... These meetings also offer time for staff to share ideas and talk about what accommodations are necessary for students to be successful.... Accessibility features/accommodations are not necessarily tied to the RtI tiers. Although they are typically offered to the most struggling students, our teachers are always looking for ways to make each student most successful. [SE39]

English Learner Teachers’ Thoughts on the Decision-Making Process

English learner teachers comment on several types of teams that contributed to making decisions about accessibility features and accommodations for ELs. These included designated EL teams, student study teams, and non-teams. When addressing non-teams, the EL teachers also commented on decision making for ELs with disabilities.

English Learner (EL) Team

Some EL teachers indicated that they held team-based meetings to create specific plans for EL students. In such cases the team included the general education teacher. In the example below, teachers did not need to decide accessibility features and accommodation for ELs who were new to schooling in the United States because all accommodations were automatically available

to them on a daily basis. Depending on student status, the team gave thoughtful consideration of accommodations for students.

Accommodations for ELs is set by the state. First year ELs qualify for all of the accommodations. After their first year in the country, the team of EL resource teacher, Title I and general education teacher...determine the accommodations.... They also receive these accommodations throughout the school day and year.... All the ELS in our district have a plan of support with various accommodations selected. [EL29]

In a noteworthy example, an EL teacher not only cited the individuals of the EL team, but also elaborated on the decision-making process. Accessibility features (referred to as designated supports in this teacher's state) and accommodations in the classroom influenced considerations for assessments.

At the beginning of the school year, I schedule LEP [limited English proficiency] meetings with each EL student's LEP team. Team members include parent(s), school level administrator, teacher(s), appropriate support service providers, the student when age appropriate, and me, the ELL teacher. We are always pressed for time, so prior to the meeting I email the principal and classroom teacher(s) copies of the blank assessment forms. I also go through the options of designated supports and accommodations, so that I can recommend appropriate supports for the student.... To make sure that classroom experiences mirror those during standardized testing, we select classroom modifications first, and then we discuss and select testing supports and accommodations. The team members review and sign the documents which authorize supports and accommodations for both [ELP] assessment and the state's general summative assessment. The Title III Director enters the codes into the state's education data system, so they are ready for test taking windows. [EL36]

Student Study Team (SST)

Depending on the status of an EL student final determinations were either at the district level or with a general education team, such as a Student Study Team (SST). The SST included both general education and special education teachers. In the example below, an EL teacher described how the SST worked together to determine supports for former ELs, those who had recently attained English proficiency and had been exited from EL programs (i.e., monitored students).

There are two types of English Learners: Active and Monitored. Active students receive direct support and services by the EL teacher and therefore the accommodations are selected by the EL teacher. She must submit EL support plans to her district

supervisor who approves the plans. Monitored students are those who tested out of EL through another assessment called the [language proficiency benchmark assessment]. Accommodations and supports for these students are decided in the same way as general education students which is through a student study team [SST]....The Student Study Team consists of an administrator (principal or assistant principal), instructional coach, intervention coordinator, a general education teacher, a special education teacher, and behavior interventionist. As required, the speech/language pathologist, school psychologist, or EL teacher may be called in.... Our English Language Learners have individual support plans as well that are written at the start of each year. [EL15]

Non-team

Regardless of whether a student support plan existed, it was common for accessibility and accommodations decisions to be made by a single educator (often the EL teacher), or for there to be no formal decision-making process at all. At times, decisions were left solely to the judgment of the EL teacher that may have been communicated informally or without feedback from other individuals such as a general education teacher or parent.

On the state reading and math test, since EL students do not have an IEP, I must advocate for my students who may not get any accommodations, such as small group testing, if I don't push for it.... As the only EL teacher at my site, I might talk with general education teachers if I have a question about an accommodation, but there is no official team or committee.... EL teacher discretion and the SPED team decide [on] accommodations. General education teachers do not input accommodations to my knowledge, but may be consulted for their SPED and EL students.... Sometimes teacher input is considered, but not always.... I typically assign accommodations and then let the classroom teacher know. [EL21]

...outside of testing I make suggestions. I communicate these with an ESL plan. In my district the decision... has been left up to the ESL case-manager for each student.... We don't have criteria.... If I am unsure, I conference with the student and/or his parents to make the final decision. [EL28]

For EL teachers who independently decided on accommodations, in some cases it was not a process that required in depth considerations because of the limited accommodation options available for ELs.

At my school the decisions are made by departments.... Accommodations for ELs are handled primarily by the EL program coordinator (me) and tend to be very standard.... I make the decisions for EL students.... Since there are very few accommodations available to EL students beyond the general features these decisions are rather easy. [EL9]

English learners (ELs) with disabilities. In contrast, individual needs were considered for students who were dually identified as an EL with a co-existing disability. Both the IEP and EL teams were involved in decisions on accessibility features and accommodations. These teams included the EL, special education, and general education teachers, as well as parents and students.

Our IEP team and EL committee make decisions about accommodations for students with disabilities within our school system. The accommodations are based on the individualized needs of the student such as the language proficiency or the disability needs.... The IEP team consists of the special education teacher, special education coordinator, classroom teacher, counselor, instructional coach, parent, and principal. The EL committee consists of the EL teacher, Federal Programs coordinator, parents, teachers of EL students, counselor, and principal.... We try to use supports that the student has been using during instruction and other assessments. When age appropriate, student input is also considered. [EL5]

The IEP team makes those decisions however the EL teacher would be in on those decisions. [EL6]

In other cases, team-based decisions for ELs with disabilities were not mentioned. Instead various individuals conferred informally with an EL teacher.

When we are talking with ELs [with a] disability, our EL coordinator, SPED rep and classroom rep along with admin rep work together. [EL10]

I also offer input for students that are dually identified as both EL and SPED. Typically, I work with the case manager of these students to determine appropriate accommodations. [EL21]

For ELs with disabilities, the EL teacher was not always involved.

At my school the decisions are made by departments. Students with IEPs and 504s have their accommodations spelled out in them. If a decision needs to be made beyond that, the SPED team makes those decisions in conjunction with administration and parents. [EL9]

For ELLs who have additional accommodations per an IEP, I sometimes consult with their case manager about the appropriate accommodations or accessibility features.
[EL28]

Summary of Theme 1 (Decision-Making Process)

All three groups of teachers described the decision-making process for accessibility features and accommodations as primarily team-based, but less so for EL teachers. In some states, special education teachers had other titles in general education teams and participated in making decisions for students without IEPs or 504 Plans. Besides their role in teams specific to their disciplines, all teacher groups referenced intervention-type general education teams in their schools that were mostly associated with students who struggled with their academics. These teams also made accessibility features and accommodations decisions for all students.

Across all three teacher groups (general education, special education, and EL), team-based decisions did not consistently occur. One reason was that both general education and special education teachers (not EL teachers) stated that not all members were included or influenced team decisions. Another reason was that informal communication occurred between teacher groups or final decisions rested in the hands of individuals rather than the team. Only a single general education and special education teacher described a process to make decisions beyond just identifying team members. A third reason was that external entities such as the county, state, or pre-college test vendors overrode teacher or school-based decisions and had the final say to approve or deny accommodations.

Besides teachers, recommendations on accessibility features and accommodations from other non-educator team members were not always included. Special education and EL teachers obtained input from parents and students. Parents and students were rarely included in general education teams, which depended in part on the type of general education team.

Particular groups of students did not warrant discussion across all three teacher groups. General education and special education teachers (not EL teachers) mentioned 504 plans but no group specified who participated or what the decision-making process was for students with 504 plans. General education teachers mentioned ELs, but special education teachers did not. Only EL teachers referenced that both informal communication and team-based collaboration occurred between IEP and EL teams.

Comments from all teacher groups pertained mostly to deciding accommodations for assessments, without reference to accessibility features or in-class supports. However, general education and special education teachers made the distinction in their decisions for younger students in the primary grade classroom because they were not yet required to participate in

summative assessments. But, in a school with an inclusion model, high school students with or without disabilities did not necessarily receive supports that were not considered worth the time for the decision-making process because there did not seem to be enough implementation time for them to be effective. EL teachers based their decisions more on a student's language status in U.S. schools, regardless of grade level, mainly because there were relatively limited accommodations options.

Theme 2: Data

The second theme derived from the analysis of the focus group data was about the types of data general education, special education, and EL teachers used to decide accessibility features and accommodations in assessments and class activities for students. All three groups of teachers used scores from various assessments, class observations, grades, and input from team members. Also, each group of teachers mentioned specific kinds of data that were more commonly considered for their students than for others.

General Education Teachers' Thoughts on Data

General education teachers described data they used to decide accessibility features and accommodations for students with IEPs and 504 plans as well as students in general education, particularly, those who were struggling with their academics.

For students with disabilities, general education teachers typically considered data within IEPs or 504 plans, such as outcomes on assessments to determine appropriate accessibility features and accommodations. However, information from certain individuals was invaluable, if not the most useful data. In an atypical example, this general education teacher highly depended on input from the paraprofessional who worked closely with a student.

The pieces of data generally come from the student's IEP and/or 504 plans. In addition, their performance on other assessments from the school, and/or just other assessments in general (such as standardized tests) can help determine what will work best for them. The most helpful data is when the paraprofessional associated with the student can tell me what they have experienced working the best. [GE18]

Also, high school students' direct feedback on their experience with those accessibility features and accommodations that were most helpful to them facilitated the IEP team to make meaningful decisions on behalf of the students.

As part of an IEP team, we look at student grades, prior state assessments, anecdotal evidence from teachers, and the student's opinion as we determine which accessibility features and accommodations to put in place for the following year. As I teach in a high school, there is often a lot of student input in their IEP, which is very beneficial. [GE40]

Aside from IEPs, classwork of students with IEPs enabled teachers to individualize accessibility features and accommodations on assessments for students.

We use classwork as well as assessments (classroom/schoolwide) to determine the most appropriate and effective accessibility features and accommodations that will best meet the needs of individual students, and that are in alignment with their IEPs. The data we use is helpful for the purpose of attempting to ensure that these students have the best possible opportunity to experience success, though the assessments are not aligned with the daily work these students complete. [GE1]

In spite of IEPs, a unique example is illustrated with collaborative data gathering between the general education and special education teachers to then be shared with and accessible for all teachers.

We make decisions based mostly on observations of the student we are making accommodations for. The special education teacher and myself will collect classroom observations and grade data to determine areas of struggle and then try to formalize a plan to help meet the needs of the student. All teachers in the house have a binder that is a collection of these strategies that gets updated yearly. They are not formally filed as they are kept on a student-by-student basis, however, we do tend to share the strategies with teachers at the next grade level. However, they may or may not be used. [GE42]

For students who did not have IEPs but were general education students who struggled with their academics, they were at times provided accommodations specific to those that were available in assessments. Because students were required to participate in state assessments beginning in third grade, data were collected to monitor their progress with accommodations in third grade and onward.

We use data-driven decisions. Starting in 3rd grade, specific strands and accommodations and use of those accommodations is tracked for at-risk learners (or those in our targeted groups such as free and reduced lunch). When they get into middle school we push problem solving and elimination techniques using accommodations that are

available to them on standardized testing. If a student has other methods that have been successful, they are also looked at. [GE19]

For students who did not have some type of individualized learning plan (e.g., IEPs or EL plans) a few general education teachers developed their own plans and generated data to determine the test accommodations that best supported students. The accommodations were sometimes similar to those used in special education referrals and intervention programs.

We do 30/60/90 day plans for students that perform in the bottom percentile in reading and math in the [district] test. That is a plan that is an informal document which addresses students who are not served by speech, special education or an EL student. The plan is a living document for teachers to plan accommodations for students to improve their areas of weakness on the test. We use some of the same accommodations that are suggested for a special ed referral (seating arrangement, peer tutoring, and extra intervention) and we give a time limit for improvement. [GE2]

However, more often than not, the types of accessibility features and accommodations for general education students were not specified as determined from the data to guide teachers' decisions.

We look at several pieces of data: the student's scores on previous standardized tests, classroom performance, whether or not the student has anxiety or appears anxious when testing.... The data I mentioned that we look at is for all students, but as classroom teachers we focus on the students in our rooms not serviced by IEPs/504s or those receiving EL services. During a grade-level meeting with the RtI coaches we bring these names up and, if they aren't already on a master list carried over from year to year by the RtI coaches, we discuss adding the child to the list, the reasons for it, and the accessibility features and accommodations we feel are important for that child. [GE18]

We use data-driven decisions. Starting in 3rd grade, specific strands and accommodations and use of those accommodations is tracked for at-risk learners (or those in our targeted groups such as free and reduced lunch.) [GE19]

Sometimes the accommodations were like those for students with IEPs. Students' success in using these accommodations was monitored and adjusted as needed.

They are fluid and we can change them as the student progresses. I have a student that I am monitoring until May with one of the plans. We use some of the same accommodations as with students with an IEP. [GE2]

General education teachers typically referenced scores on assessments as a source of data to determine accessibility features and accommodations. However, not all assessments were considered of equal value. Data from school-wide assessments was more meaningful than state assessment data for some teachers to decide accommodations.

I use [school assessment] and our benchmarks, which are done online with [student management system]. I also have access to their state testing scores from previous years, but those don't carry too much weight with me.... [School assessment] is used school-wide. It provides data (by way of Lexile) about each students' reading comprehension level. It is helpful in deciding accommodations because it is accurate and it lets us know if a student is reading below or far below grade level. [GE35]

Further, general education teachers tended to mention the use of district assessments more than state assessments that assisted in identifying support needed for any student.

There are several pieces of data I use to determine what accommodations a student needs. These include the [district assessment], past state test scores, grades from the previous and current school year. While accuracy with the [district assessment] is not the best, it does provide areas of weakness that I can focus on and make accommodations for. [GE32]

Our district uses [school assessment] to measure students' academic growth. We take the test 3 times a year and each time we take those tests we have a data day where we sit down and discuss students' progress and look for students who are struggling or whose scores have fallen from last test.... The [district assessment] has pre-set accommodations that can be chosen for students, like no time limit, or having test read to them, but there are other accommodations that are set in the IEP that can be used for the tests. Some students need to use a multiplication chart and are able to do so if stated in their IEP. The [school assessment] does not help us determine what accommodations need to be put in place, but based on test scores, we are able to meet and talk about how to help the children be successful on these types of tests. [GE43]

Teacher-based assessments were also frequently used to determine classroom accommodations for students.

In my own classroom, I look at formative assessments, such as warm up activities, homework assignments, and student participation to see if there is a certain area in which students are struggling. I then will give all students certain accommodations on a unit test. [GE40]

We have weekly formative assessments from our reading and math series that we use and teacher observation determines classroom accommodations. [GE41]

Not all forms of data held the same level of importance for general education teachers to make accommodations decisions. They tended to cite observational data as the most useful for accessibility and accommodations decisions compared to assessment results.

I mostly use classroom observations at the beginning of the year to determine what accommodations need to be made for specific students and then I am able to use [school assessment] data to help determine what other accommodations might need to be made for students in the areas of reading and math. [GE43]

As for data used to make decisions about accommodations, it seems pretty subjective. We use anecdotal notes and observations, sometimes making decisions about how to modify an assignment literally sitting and working with the student.... I feel very strongly that anecdotal observation and notes are often the best source of information regarding a student's performance... a multiple choice test such as [school assessment] reading or math can give you only a snapshot of a child's performance at a particular time.... Anecdotal notes allow you to recognize and document the depth of a child's knowledge and skills as they are put to use and applied—that's reality. [GE33]

As one teacher summed it up, teacher input was considered the most indispensable form of data that should be applicable to any student based on the student's individual needs.

Classroom formative and summative assessments are used to determine the appropriate and effective classroom accessibility features and accommodations for students. Also, teacher observation and feedback play an essential role in determining what is needed for a particular student. These types of data are helpful and provide multiple avenues for identifying and determining what is appropriate for individual students. These practices are helpful for all students. [GE4]

Special Education Teachers' Thoughts on Data

Special education teachers described the kinds of data they used to decide accessibility features and accommodations for students with disabilities. Student factors and their performance with permitted accessibility features and accommodations guided IEP team decisions. For instance, an elementary school used district guidance that was based on a hierarchical assessment model.-

In the elementary setting, we have a variety of assessments given throughout the year for who school: the [state content assessments], [district benchmark assessments] (Universal Screens), and then classroom summative and formative assessments. Our district released a guidance document outlining the tools and options for each type of test. The district guidance document suggests a trickle-down model, meaning that any accommodation students receive on the highest level of test, the [state content assessment] should be made available to the student on both district and classroom assessments. We also have to consider what accommodations are allowable on various assessments so that the score can still be considered a valid measure. This is especially true with our normed assessments...accommodations are always discussed at the student's annual review meeting. The team will discuss how the student has performed on various assessments mentioned above and what tools or accommodations they may need to be more successful. There are the "big 3" that are always discussed which are extended time, reader, and separate setting. They seem to be the most common ones that can often apply to any assessment. When selecting these three, we consider the student's ability to attend to and engage with the assessment, the student's reading level, and the student's overall cognitive functioning. The team can either pick from a pre-populated list or write in their own...the team has to be clear about when and how the accommodation will be implemented. [SE15]

Only a few teachers mentioned monitoring the impact of accommodations, which were noted from changes in student test scores, especially from district assessments.

The data that we look at varies. The general education teacher will bring data that he/she has collected from classroom assessments and classroom observations. The team will also look at district collected data [from district assessments] and, any testing done by the school psychologist, or an data that the special education teacher or Title I teacher has collected through classroom assessments.... Many times we will have students take tests without accommodations first, and then allow them to retake a test with the accommodations with the Title I teacher or special education teacher to see if there is a difference with the accommodations. We then track their scores over time to see the difference the accommodations make.... [SE31]

We will also trial and collect data on different accommodations as well to determine if the student requires them.... For example, another special education teacher at my school is collecting data whether or not one of her students requires a scribe. Last year, I did a trial on speech to text accommodation for one of my students. While in theory it sounded like it would meet his needs, it proved to be a hindrance to him more than a benefit. [SE14]

In addition to state and district assessments, class-related data, such as formative assessments and observations, were used.

When choosing accessibility and accommodations for assessments on teacher made tests, the IEP team bases their recommendations on the disability, past need, student input, parent input, and general education teacher input. [SE12]

Also in the classroom, a novel excerpt on determining universal features from collaborative data gathering between the special education and general education teachers is described.

Both the classroom teachers and special education teachers are able to decide on and implement universal features. We will make observations during the practice tests and [interim assessments] to determine if they are needed. Despite the test being unlimited time, we may have a student who needs more time than typical and may be nervous if he or she feels the class is all finishing and they have many more questions to answer. We will also ask the student their preference. A student may be reluctant to leave the classroom and this would cause more stress for them. [SE14]

The intervention specialist (i.e., special education teacher) was the primary decision maker who relied on the evaluation document of the IEP to decide assessment accommodations based on accommodations decided for classroom use.

Within the classroom, Intervention Specialists [special education teacher] again turn to the Evaluation Team Report as the guiding document for accommodations for students with IEPs.... My decisions and recommendations are made based on information from the Evaluation Team Report, from conversations with the school psychologist, input from classroom teachers, parents, the student, and other service providers, and data gathered from many sources.... I decide based on what is provided during the regular classes. If they have tests read aloud, then they will have major assessments read aloud as well. I choose the appropriate accommodations based on the data and the current IEP. The goal would be for the student to be placed in the Least Restrictive Environment. If that is taking place with the current accommodations in the classroom, we choose to continue that when taking assessments...each Intervention Specialist makes accessibility and accommodations recommendations on a student-by-student basis for classroom, district, and state assessments for the students on his/her IEP roster... primarily based on results from the student's Evaluation Team Report. For example, I can't just give a student extended time if the results from the psychologist testing don't indicate a slow processing speed. Similarly, I can't use a calculator accommodation when there is not an indicated need on the Evaluation Team Report (ETR) in the area of math calculations.... [SE30]

The flexibility of adapting intervention strategies was another piece of information that influenced decisions on accessibility features and accommodations in assessments.

We make accessibility and accommodation recommendations for assessments based on observations, information from the student and teachers and past test data.... The hard data we use are observations, intervention results, and grades. This data is helpful because we are able to change different facets of interventions to see if there is a change. It also helps us determine if something is not working. [SE22]

Special education teachers frequently spoke of their reliance on general education teachers as an invaluable source of information on accessibility features and accommodations in the classroom to inform their use in assessments.

We use the data from previous tests, [state content], etc., however, my main source is teacher input. They know the student the best. We were told that if the accommodation is required for classroom performance then it should be the same on standardized testing. Now, if the test isn't timed, then obviously they do not need extended time. If they require tests to be read to them, then their state assessment should be read. [SE37]

The general education teachers provide me with information about student performance in their class. For example, I always ask if a student's understanding of the content is increased if the material is presented orally to the student. [SE8]

Data was useful not only for special education teachers but also in turn for general education teachers in their instruction.

The data each of the teams use to discuss accessibility and accommodations are informal assessment in the classrooms, interim assessments with items that match the end of the year testing, classroom observations, parent input about student strengths, teacher input about student learning style, and even a learning style inventory for the student. We also use the Psychoeducational Evaluation that is used for eligibility for special education services to gain information about areas of strength or need.... This data is very helpful because it not only allows for accessibility and accommodations for assessments but also allows teachers to know how to use differentiated instruction strategies in daily lesson planning to meet student needs. [SE39]

The use of a school-wide data system available to all teachers was an uncommon mention by special education teachers.

In terms of data used when determining appropriate and effective classroom accessibility and accommodations again I refer to observations the teacher has made based off of prior tests given, as well as observations I've made from observing tests being given in various environments (e.g., whole class, small group, 1-on-1)... When it comes to specific academic accommodations, like the use of a multiplication chart or a test read to them, we look at the students running records, [school reading and math assessments] math/reading scores, how they are performing on in class tests.... An example of a running record would be a computer program called [school reading program]. Our school does use a data system that is available to all teachers called [school assessment program]. We started using this system about 3 years ago. [SE47]

However, data information from general education teachers was not always readily obtainable and documented. Therefore, a formal, obligatory approach for general education teachers to provide data to special education teachers was identified as needed by some.

At the beginning of each school year the special education teachers provide each general education teacher with an accommodation log of the individual accommodations for each student. These logs are kept on a month-by-month basis and submitted to the special education case manager at the end of each month.... General education teachers are required to submit accommodation logs to the special education teacher each month, which also gives insight into the student's performance in class.... [SE8]

At my school the special education teacher is responsible for creating the IEP, but prior to, we are required to speak with general education teachers to get an idea of how the student is progressing. General education teachers are required to submit accommodation logs to the special education teacher each month, which also gives insight into the student's performance in class.... At the beginning of each school year the special education teachers provide each general education teacher with an accommodation log of the individual accommodations for each student. These logs are kept on a month-by-month basis and submitted to the special education case manager at the end of each month. [SE38]

In certain instances, the administration was instrumental in ensuring that collaborative efforts between general education and special education occurred to document which accommodations were helpful for students.

All general ed teachers are required (by our administration) to input on a weekly basis. The forms are linked to a response document that can be viewed. Over a period of time, the combined responses of all a student's classroom teachers give us an excellent

“picture” of what is happening in a student’s general education classes with his/her accommodations. This “system” originally arose from a state audit which indicated we were doing quite fine on notifying teachers of students’ accommodations in a timely and appropriate manner; however, there was no documentation that the accommodations were actually being provided. I will say “convincing” gen ed teachers of the necessity to formally document accommodations has been a “rocky road.” Administration had to stand firmly behind this “new” task in order for it to be implemented.

... In addition, we have set up a “system”, using Google, where teachers document, on a weekly basis, accommodations they have offered students, and whether or not students have used those accommodations. [SE12]

Special education teachers, too, were accountable, particularly to testing administrators, who also managed the data collected.

Special education teachers are directed to send the data to the testing coordinator for each student. In addition, the special education paperwork system contains the information so coordinators are able to pull the information easily. [SE22]

Our building test coordinator has developed a spreadsheet that lists all of the allowable accommodations across the top and all of the students with IEPs in the building. Each Intervention Specialist [special education teacher] goes into the document and for each student marks an X in any column that has testing accommodations that the student uses. And, since the allowable state test accommodations drive the ones listed in the IEPs, it’s usually a cut and dried process at that point with no room for conversation. If we discuss it at all, it would be when the IEP is written. [SE30]

For other special education teachers, documenting test accommodations was haphazard without the use of a school data system.

I often try to track and document which students use which accommodations on tests, usually those which were indicated on IEPs... such as how long a student actually takes to complete a test on which they have extended time, compared to how long peers take to complete that test... and a classroom teacher committing to using just one new accommodation at a time. [SE31]

Besides general education teachers, student input was influential at times to decide accessibility features and accommodations for both assessments and classroom accommodations. Here this is exemplified in the IEP team respecting the preferences of a student in an upper elementary grade.

We consider many factors when determining whether or not we should implement any classroom accommodations for students including the child's reading level, response to intervention data (which means are they making progress towards discrete goals), performance on other assessments, teacher anecdotal observations, parent input, and student input for our older students in grade 4 and 5. We had an interesting situation where we involved a student in a meeting about the accommodations and she said she really didn't need separate setting all the time, but wanted to be able to choose based on how she was coping with her anxiety that day. Great example of giving the student the option to explain to the team what she needed rather than a group of adults making educated guesses about what she needed. [SE15]

This approach also applied to high school students, especially for students planning to take pre-college entrance exams.

The data that is used at the high school level for assessment accommodations is student disability, student input, parent input, and previous IEPs. Over time, the accommodations that worked for that student are used in all IEPs such as tests and quizzes read, tests and quizzes given in a small group setting, or extended time for tests and quizzes. State assessment scores are not used for choosing accommodations unless the student indicates that if things were different, they could have done better. The most helpful information is from the student. We have had some students that have used testing accommodations such as an audio produced version, and didn't like the extended time that was needed for the test. They provided input as to what they needed and what they didn't want. This is helpful in regards to our freshmen and sophomores to get things right before their junior year. All juniors take the [college-entrance exam] as part of their state test. [SE11]

Special education teachers valued data to decide accessibility features and accommodations.

We make accessibility and accommodation recommendations for assessments based on observations, information from the student and teachers and past test data.... The hard data we use are observations, intervention results, and grades. This data is helpful because we are able to change different facets of interventions to see if there is a change. It also helps us determine if something is not working. [SE22]

Data is extremely helpful in determining individual student needs and the appropriate and effective classroom accessibility features and accommodations.... I utilize test data [school assessment, state content assessments], student grades, progress reports, accommodation logs, and teacher reports to determine what features and accom-

modations are needed. As a special education teacher, there have been times I have removed certain accommodations for students because they truly are not necessary for the student to be successful. This determination was made from analyzing different data I had compiled about the student. [SE38]

EL Teachers' Thoughts on Data

EL teachers used data specifically for EL students from varied forms of assessments, but primarily from English language proficiency (ELP) assessments to decide accessibility features and accommodations.

At this point, I use the [English language proficiency assessment], the EL test, to create accessibility features and accommodations; however, that is all I have to work with. [EL20]

In the following comment, an EL teacher described how the state's ELP assessment indicated which accessibility features and accommodations were allowable in a tiered framework.

If the student is at a [English language proficiency assessment] 1 or 2, I select all bilingual options.... Students above a level 2 may use a bilingual word-for-word dictionary, but most of them choose not to because they don't find it useful. Other than that they use the feature available to all students.... They tend to transition naturally, it is very rare that students above a level 2 use a bilingual dictionary or other helps, even when they are placed on the table next to them. The adaptations do not tend to vary from test to test. There are fewer available to them on the [English language proficiency assessment], but the test is tiered for their proficiency level and adapts based on the level, so fewer accommodations are needed. [EL9]

Another EL teacher indicated that accessibility features and accommodations were confined to limited options available in the ELP assessment.

To be honest, there is very little – besides translation – that we can do with the current state test to make it accessible to pre-emergent and beginning level students. [EL29]

In spite of the availability of accessibility features and accommodations in the ELP assessment, students did not always use them.

Those students typically would not use the accommodations if I provided them (dictionary, translator). I can't really think of other data that I would use to inform acces-

sibility and accommodation recommendations: I think I have a pretty good picture of my clients. [EL28]

This was the case particularly in the upper grades.

The students at a [English language proficiency assessment] level 3 or above have generally been here in the USA for two or more years and they choose not to use the features of their own volition.... I suspect the reasons are some combination of these factors:

1. They are middle school students and don't want to be seen as "different" from their peers.
2. The features (highlighting, sticky-notes, etc.) that are available aren't very helpful to them.
3. They have learned the material in English, not their native language, and don't have the academic/technical vocabulary for the material in their native language and are more comfortable with the academic nature of the subject in English than their native language. [EL9]

In addition to assessments, EL teachers used data based on student factors including background, ability, and classroom notations to decide accessibility features and accommodations.

Information from past [English language proficiency] test scores, English screeners, home language questionnaires, IEPs, and anecdotal records allow me to choose appropriate accommodations. [EL21]

Other data points I currently consider are:

- Scores on other standardized tests
- Lexile or other reading levels
- Level of participation in the general education classroom
- Number of years in US schools
- Educational background (refugee or interrupted schooling?)
- Literacy in other language. [EL28]

Information from non-teacher individuals was also considered helpful to decide accessibility features and accommodations.

Input from the parents and students themselves is helpful as I think they understand the personality of the student and whether using a translator would be inhibiting to that individual (if, for example, the student is shy). [EL29]

One teacher's description of data used to make decisions on ELs with disabilities included information collected from general education teachers or special education teachers.

I make recommendations based on students' scores, length of time in the US, observations when working with the students and conversations with classroom teachers, Special education teachers and any support staff that works with the student in question. [EL10]

A few EL teachers considered students' willingness to use accessibility features and accommodations not only in assessments, but also in the classroom.

I make my decision about the dictionary based on whether a student has accepted and used a bilingual dictionary in his or her classes from the beginning of the year. [EL28]

In an example of classroom accommodations, data used to determine classroom accessibility features and accommodations were documented based on the four domains of the English language standards.

When looking at EL students, we usually place the students on the [English language proficiency assessment] descriptor charts.... Each teacher will place the ELs on the chart at the beginning of the year in each of the four language domains (reading, writing, listening & speaking). Then classroom accommodations for these students are based on what they are able to do. This document is a "live" document, meaning that students should be able to do more than they did at the beginning of the year. [EL10]

For other EL teachers, it depended on them to collect, manage, and disseminate information on accessibility features and accommodations for EL students.

All the ELs in our district have a plan of support with various accommodations selected. It's the job of the EL resource teacher to make sure these are followed, but there is no database for them....Special Education department has a database listing the students and their accommodations, but EL does not have such a database. [EL29]

Without a departmental or school-wide database system, this EL teacher took it upon herself to create a document that included a variety of data to decide accessibility features and accommodations.

Being the only EL teacher has some advantages. The students are my responsibility until they exit out of the program.... By gathering information through colleague and parent collaboration, I am able to learn a lot about my students' academic and

behavioral needs and skills. When I have information, I am able to think about my students' learning and test-taking needs.... I maintain an Excel spreadsheet for each student, so that I can see whether there was progress. I have access to my students' grades, and I try to talk to or email other adults who work with the child so I have as much information as possible to address supports and accommodations that will support the student. [EL36]

However, it could not be assumed that in spite of the existence of a school-wide data system that accessibility features and accommodations information were available or accessible to all educators who were involved with the students.

Accommodations are entered in a school wide data system, however, to my knowledge, only EL educators and SPED staff enter this information. [EL21]

Summary of Theme 2 (Data)

All three teacher groups—general education, special education, and EL teachers—shared in common the use of a variety of forms of data to decide accessibility features and accommodations in assessments and the classroom. However, they more commonly referred to accommodations in assessments rather than for class and rarely to accessibility features of any kind. Data were included from different kinds of assessments, such as state, district, interim, and formative. Also, information from individuals mattered, including from teachers across disciplines, students (especially in the upper grades), and occasionally parents. So, too, were data points on student factors considered, such as their academic performance and ability level. All teacher groups mentioned documenting and monitoring data on accessibility features and accommodations used by students but rarely mentioned any guidance from schools or districts.

Along with the commonalities of data used to make accessibility features and accommodations decisions among the three groups of teachers, there were also differences in data specific to their students. Compared to the other teacher groups, general educators emphasized data monitoring. They primarily used data for students with disabilities and general education students who struggled with their academics. On occasion, general education teachers developed plans and data inventories, which included information sharing among special education teachers and RtI educators. Unlike special education and EL teachers, non-state assessments that measured student growth, such as district and formative assessments, were mentioned more frequently and considered more useful data than from state assessments. Data from these assessments were collected to monitor and document student progress in test scores associated with accessibility features and accommodations given to students on specific assessments; on a rare occasion, this was shared at the school-wide level. But, observational classroom data of students were the

most frequently mentioned and considered of highest importance to general education teachers to make accessibility features and accommodation decisions.

Special education teachers referred to individual needs of students with disabilities and their specific disability. Similar to general education teachers, a variety of data was used and considered a valuable resource. Specific data they used for these students were from IEP documents and input from members of the IEP team, including students and general education teachers. Similar to EL teachers, at times the special education teacher had the primary responsibility for gathering information and making the final decisions. And, documenting and sharing data was more with teachers or within departments rather than at the school level. There were a few instances when administrators implemented formal database systems for general education teachers and special education teachers to document accessibility features and accommodations provided to students with disabilities. There was only a singular example of district guidance on data for teachers.

Data for EL teachers were concerned with the support needs specific to ELs. They relied primarily on data from ELs' scores on the ELP assessment and their language background. Unlike the general education and special education teachers, EL teachers had less variety of data, whether from types of assessment or the classroom. Furthermore, they asserted that there were relatively few accessibility features and accommodations that were available for ELs that were allowable or helpful. At times the data collection and management was dependent primarily on the special education and EL teachers. It was up to them to develop their own database system to monitor the progress of students. However, EL teachers typically did not mention documenting and monitoring ELs use of accessibility features and accommodations or sharing data with other educators or across the school or district levels to make decisions on accessibility features and accommodations. Similar to the special education teachers, there was a single mention of a form of guidance that was the state's ELP assessment model for teachers.

Theme 3: Constraints

General education, special education, and EL teachers expressed various constraints about accessibility features and accommodations. These included: teachers without adequate knowledge and guidance to make decisions; exclusion of teacher input to contribute to the decision-making process; and various factors that challenged them in the provision and implementation of accessibility features accommodations, such as resources and technology hindrances.

General Education Teachers' Thoughts on Constraints

General education teachers often mentioned constraints that affected the accessibility features and accommodations students received. These constraints fell into the categories of: (a) lack of

teacher knowledge about accessibility features and accommodations; (b) limited opportunities for teacher input on accessibility features and accommodation; and (c) implementation challenges.

Lack of Knowledge

General education teachers acknowledged that they did not have a clear understanding of accessibility features and accommodations. General education teachers were uncertain about the differences, if any, between accessibility features and accommodations for general education students and students with IEPs.

I honestly am not sure how the accessibility features/accommodations differ between the RtI and IEP teams. I thought that the IEP team was able to offer more features/accommodations to their students as compared to the RtI team, but maybe that isn't the case! [GE18]

I think I'm a bit confused, as well. When we are talking about assessments and accommodations are we talking about ALL students or just students with IEPs or 504s? [GE16]

General education teachers recognized that they needed foundational information and an understanding of accessibility features and accommodations to make appropriate decisions for students.

As a general education classroom teacher I find the accessibility to the features and accommodations a bit frustrating. This is due, in part, to my lack of knowledge about what is available to my students and its actual availability.... The most helpful information would be just a basic list of what accommodations can be made, so I can provide more informational input as to what would benefit the student. [GE32]

Standardized usage about accessibility features and accommodations would be helpful in having a shared, common understanding and all teachers being informed.

Consistent language and terms should be used school-wide. [GE35]

The accommodations are set up in advance according to the student's IEP. However, when I read the accommodations and accessibility features I did not know if our school was making use of some of the options. [GE34]

General education teachers did not always schedule a time to take advantage of the opportunities to try out accessibility features and accommodations on practice tests and learn about their functionality to guide students themselves.

They [general education teachers] don't take the time. They don't "play" with the site during the [state content practice assessment] time when you can work with the features. [GE19]

We also have no formal plan to help students know how to access features on the computer...students have had almost no practice using these themselves except on the state test. When we begin the test, the administrator in charge does not take time in the testing session to review the resources. I believe there is a place in the directions where comments are to be read to the students, but that is not being done. [GE34]

With the changeover from paper-pencil to online assessments, not only did teachers need pre-test practice but students also needed to know how to take online tests with accessibility features and accommodations.

...a meeting at my school in which we addressed our standardized reading test scores and possible reasons for why they have dropped in recent years. One issue we discussed was how students (ours anyway!) haven't necessarily been taught HOW to take an online standardized test. They haven't been encouraged to take notes on a separate piece of paper while reading a passage, for example.... Something as simple as providing paper during a reading test could be an accessibility feature available to all students that could improve their overall score.... It is my understanding that students in grades 1-2 that take online standardized tests just take the test as is, with no special accessibility features or accommodations (unless the child has an IEP or a 504). Students in grades 3-5 take multiple online tests each year [district assessment] and [state content]. They are the students that we are most concerned about and those that we want to make sure are prepared not only in terms of the accessibility features and accommodations but also in knowing how to take an online test. [GE18]

Teachers explained that there were not enough practice opportunities given to students to learn how to manipulate computer components with online assessments simulated on computers.

One of my biggest challenges with online assessments is the online format. Surprisingly, students don't know how to operate the mouse, right click, and problem solve when the mouse goes off the screen or doesn't move where you want it to. Students end up clicking through the test, playing with the tool. I wish there were more practice tests we could administer where the kids could practice simple skills like clicking their answer and how to enter in numbers in the boxes. [GE16]

There was a practice test for our State Assessment so we were able to put the tools on the Smartboard and show them as a class. Then we checked out the [laptop] cart and had the students play around with them. It is so important to have third graders work with the tools because they do not have much of an opportunity to work on the computer so it is not familiar to them. [GE19]

Limited Opportunities for Teacher Input

General education teachers claimed they were not always acknowledged or included in making accessibility features and accommodations decisions, especially since they were a member of IEP teams.

As a general education teacher I am not involved in this [IEP] process. Our principals and special education teachers set up the testing. In fact, from yesterday's forum I now have a question about why we are not included in the process! [GE34]

Almost never will someone ask if the teacher is in agreement. No one ever asks if there is anything I want to add or change.... We spend more time with these students than any special educator—we know them better, and really understand what a child's classroom performance looks like. In addition, my name is attached to the scores of all students in my classes—regular and special, alike. In the eyes of the state, the parents, the press when the scores are released, I have been the child's teacher...it only seems logical that I should be invested fully in the process to help the child be as successful as possible—that I should help write the IEP to best help meet his/her needs and help him/her progress as far as possible. Give me a list of accommodations/modifications that are permissible and let me help choose. Allow us to assist in making these documents truly individualized, best suited to that child's needs, not the ease of writing or for efficiency at the meeting. Perhaps there should be built-in collaborative planning time—what a novel concept! We used to do it very effectively with Title I co-teachers. Why not more fully make it a working partnership? [GE33]

Teachers' ability to make decisions on accessibility features and accommodations were also limited to whatever tools were embedded in the online assessments.

We use most often only the embedded accommodations that “come with the test.” These include the high contrast screen and recorded directions that are automatically enabled when an identified student logs in to take the test. If a student's IEP indicates, “restate directions,” then they can be offered verbally, but the guidelines are very strict

as to who may do so and what portions can be restated. It seems very much a hands-off process--someone somewhere has made decisions about the testing that will come to the student via the computer, and I simply sit and maintain order. [GE35]

Implementation Challenges

Teachers identified several sources of implementation challenges. These included: (a) assessments; (b) classroom; (c) space; (d) staff; (e) and computer resources.

Assessments. General education teachers were conflicted at times about how to provide particular test accommodations fairly for students.

The greatest challenge I have experienced is determining when to reduce the number of problems on the formative or summative assessment. For example, if a test has twenty-five questions, I often ponder on how many questions are sufficient to cover the specific standard. Then, I want students to attempt all of the problems because a lot of my students have developed a negative perspective about Math, so I don't want to add to their negative mindsets by reducing the test to five problems. So, I struggle with determining the fair balance of accommodations to provide to each individual student based upon that student needs. [GE3]

Classroom. Teachers also were challenged with how to use particular accessibility features and accommodations in a standardized way for class activities.

Another thing that I know new teachers struggle with is the "shortened assignment" accommodation. It sounds very straight forward, but can be confusing for someone who hasn't taught much. It would be nice to have examples of how an assignment should be shortened or modified. At my school, we all do that for those who have that accommodation, but I'm quite sure everyone is just doing it in the way they think is best. If that process was more consistent, it would benefit the student. [GE35]

The daily use of accessibility features and accommodations in class had greater value than their use for test events.

Some of these features and accommodations need to be used every day, not just for one test situation. Differentiation during instruction time is where our focus should be. Then, our testing procedures should reflect that focus. One test, no matter how many accommodations are available, reflects the true picture of what any child has learned. We all know this, yet that one test receives so much attention. [GE34]

Furthermore, professional development opportunities usually focused on tests instead of on the use of accessibility features and accommodations in the general education classroom.

Professional opportunities have not been offered to general education teachers on accessibility features and accommodations. Again, the focus has been on administering the test, not on daily accommodations. Special education teachers are involved in setting up the testing accommodations. [GE32]

One teacher expressed frustration that there were more ELA accessibility features and accommodations than for math.

From my experience [there] appears to be a plethora of tools to utilize in the realm of English/LA/ELL, but not for Mathematics. IEPs/504s always state, “Reader” or “Calculator usage”; but that is the extent of the accommodations. Considering that I am a Regular/General Education teacher at times I am at a [loss] of what to utilize to aid students with special needs.... They also have numerous accessibility accommodations for the LA Teacher to utilize; while I am always told, “Reader”, “Calculator usage”, or “Give one problem instead of two”. [GE24]

Space. General education teachers described several types of resources that limited the provision of accessibility features and accommodations to students. The general education class was not conducive to using all accessibility features and accommodations without private space.

For students who need extended time that don't have an IEP, it is hard when they are in the classroom and I have to find a quiet area for them to finish, or find something else for the other students to do while the students are finishing the task at hand. [GE43]

I also find the problem with accommodations that include having the test read aloud. It disrupts the rest of the students but helps me see what components the students with the accommodation is overlooking. We need a happy medium. [GE32]

Staff. In other cases, the availability of staff determined whether particular accessibility features and accommodations would be provided to students.

...sometimes the decision is unfortunately made based upon staff available during testing time. We cannot give every student that would benefit from testing in a room alone that opportunity, as we do not have enough staff members to do so. [GE40]

I have 132 7th graders each day and MANY of them have accommodations. I work very hard to make sure everyone gets all the help they can. I even accommodate for students who don't have anything "official" on file, but I have identified weaknesses and work to help them learn and be successful.... It would be helpful to have a person to do some of the accommodations that the classroom teacher can't do. Many of my students can have any test read aloud to them. If I've got 28 students in a class and 2 of them need a test read aloud, I'll disrupt the others if I make everyone listen. I can't take the two who need the test read aloud somewhere else, because my other students are testing. [GE35]

Computer Resources. Even though assessments were computer-based, schools did not always have an adequate supply of computers for the number of students to have sufficient practice with accessibility features and accommodations.

Students have had access to a scribe which enters answers for the student. We taught the students how to use the tools. This was a challenge for some as they are not used to using these tools with the limited technology we have.... We have a [laptop] cart per floor in our building so they are shared. Students are not able to get on the computer very often. I try to get them on once a week. [GE41]

We test in very large testing sessions (over 100 students) just to get done. It takes forever to do testing in a large school with limited technology. [GE34]

Special Education Teachers' Thoughts on Constraints

Special education teachers described different constraints about accessibility features and accommodations. These included theirs and others' knowledge gap, lack of meaningful teacher input, external entities influence, limitations on some types of accessibility features and accommodations, and implementation challenges.

Knowledge Gap

Special education teachers expressed confusion between accessibility features and accommodations for general education students and students with an IEP or 504 plan.

I have read here that ELL students may be given accommodations to testing even though they are not on an IEP. I did not know this. Good to know. Ok, I am getting confused. I think this discussion group is about accessibility and accommodations for ALL students. Please correct me if I am wrong.... Accessibility, if I am getting

this right, seems to mean the “special features” of a test that may be available. ALL students are able to highlight, bold, cross out, use on-line calculator when it’s an option, etc.... So, decisions about having a mainstream, general education student have accommodations to tests don’t happen as far as I know unless they are on an IEP or 504. [SE22]

As another special education teacher pointed out, it was not contingent on all members of the IEP team to be knowledgeable about accessibility features and accommodations. Still, it was dependent upon the special education teacher to impart the information to others.

The decisions are made at the IEP meetings, but most team members don’t know what the testing accommodation options even are, so as the special ed teacher, I am the main person informing the team on the options and inputting those options and the correct wording to support that accommodation into the IEP.... As for as the IEP team members go, the ones who administer the tests are the only ones who know about what testing accommodations are available. The Speech and Language Pathologist, Social Worker, Psychologist and other team members would not need to know test accommodation options. The special education teacher is expected to know what accommodations are available. [SE13]

Lack of Meaningful Teacher Input

A team-based decision approach would enhance input from team members, particularly general education teachers. Yet, teachers did not always believe that their input was included in decisions.

I think there is a disconnect between the classroom teacher and the IEP. Classroom teachers officially and legally have “input” into the writing of the IEP, but it is generally superfluous at best. I feel that gen ed teachers rarely understand the connection between the ETR [Evaluation Team Report] and the IEP and the need for proving and documenting which accommodations are used and are successful.... I know gen ed teachers get overwhelmed, too. So being more purposeful seems like a good team decision that is also good for the student! [SE30]

External Entities’ Influence

In a few contexts, external entities outside the school had the final decision on accommodations even though they were not directly familiar or involved with the students. The county was an example of this authority.

...the county leadership reserves the right to reject or mediate any accommodation that they feel may be unwarranted or make the county look like they are allowing a large number of students to use it during testing. An Example would be---- students with learning problems often do much better in a smaller group setting that allows a little more flexibility with time on task and taking breaks when feeling overwhelmed. We as Special Educators have been instructed to limit those students in the small group setting because that could indicate that we are not meeting their needs in the [state content] for testing....This is a concern for me as a special education teacher because I do not always feel that they know the student the way the team does and they are not in attendance of the meetings. We have to call for permission for specific items we want to consider. [SE39]

In another example, the [testing company] was the final arbiter for high school students taking the pre-college entrance test. Students with a 504 plan were particularly vulnerable to have their requests for accommodations denied.

Students with 504s can also receive accommodations for state assessments, but the governing agency is less likely to approve them, than those with an IEP.... Our 504 paperwork looks more like a checklist. There has to be evidence for a 504 such as a doctors note of a diagnosis, but 504s are not as detailed as IEPs.... 504's mention briefly the diagnosis and the rest is either a checklist or hand-written accommodations. There is so much more information in an IEP than in a 504 and I believe that plays significantly in why so many 504 requests for accommodations are denied. Many of our 504 students have ADHD or a medical issue. Although accommodations were requested for state assessments for all students with IEPs and 504s, the majority of the 504 students were denied accommodations by the governing agency. The [Developer of the college-entrance exam] is the governing agency...paperwork that is sent to [Developer of the college-entrance exam] in regards to requested accommodations. [SE11]

Limitations on Some Types of Accessibility Features and Accommodations

Teachers identified several specific accessibility features and accommodations that had limitations placed on their use.

Read Aloud. Teachers needed guidance on the use and request process for accommodations. They wanted clarification on the conditional use of the specific accommodations in state assessments even though these were helpful for students in the classroom or on other kinds of assessments. For example, the read-aloud accommodation was commonly mentioned.

...a more specific guidance document might help to clarify the problem that it seems districts (including mine) are having with that “read aloud” option.... When the read aloud accommodation was taken off the state allowable test accommodations, it was then taken off the IEP of every child in my district who takes the state test. It no longer mattered that read aloud could be, for some students, a viable classroom accommodation. We have to “prepare them for The Test.” [SE30]

We mainly do not use the text-to-speech or human reader feature for students on IEPs because the wording on the guidance document for planning is vague. Also, there is an unwritten understanding that if the district would use too many readers, then it would raise red flags with the state that there is a problem with our system and with our test scores. Because students with IEPs are not allowed to have a reader on the reading portion of the State Test, we do not write that accommodation into their IEP for classroom testing either, based on the theory that they need to practice the way they will be tested. We do, however, provide a human reader for classroom tests in other subject areas for students.... [SE31]

Braille. Braille was another accommodation that was challenging for teachers due to the cumbersome process entailed in requesting it.

One of the greatest challenges is completing the necessary paperwork for her to receive these accommodations. They are often confusing and not user friendly. I been questioned - both by at district level and state level - for the accommodation of braille. It becomes frustrating when you have to defend the right for your student to have access to what she needs. Since she is a dual media learner, some people do not readily understand why she would take the test in braille as opposed to on the computer with magnification. [SE14]

Calculator. In a single comment, a special education teacher argued that professional development for all teachers would help build their knowledge about accessibility features and accommodations. For example, the use of a specific type of calculator warranted further elucidation because teachers were unable to make sense of why the use of the calculator was not allowed even though it was in the student’s IEP.

The main thing I would say is that training is the most important aspect. You can have 200 accommodations but if teachers do not know what they mean, they are not useful. For example, our SPED students can use a calculator (if on the IEP). The accommodation listed on our IEP writer says use of calculator. However, the accommodation actually means that it is for any special calculator because all students have access to

a calculator. That was never made clear to me. Also, there are certain parts of the test that do not allow a calculator. How is that following a student's IEP accommodations, when they cannot use a calculator. You have to mark the accommodation multiplication chart. These things need to be made clear. To ALL teachers.... No training is given to regular educators. The SPED teachers are "told" as changes appear on the IEP writer. I do not believe there was an official training that everyone attended. [SE37]

Furthermore, forbidding the use of calculators on state tests prevented students from having them available for use in class. It limited the willingness of teachers to implement them.

...students with IEPs were not allowed to use calculators on the state test, so they were not allowed to use calculators in class. For students who don't know their multiplication facts with automaticity and aren't allowed to use a calculator, fifth grade math can be a dismal thing.... I have several students with intellectual disabilities in my general ed sixth grade class, and we have found success with "cue cards" that break down how to do specific types of problems (such as rate tables or simplifying fractions) into numbered steps which they have to follow each time they do the problem. It is difficult to list or explain those things on an IEP, either in the section for Specially Designed Instruction or on the testing accommodations section. And many of those things I listed aren't allowable accommodations on the state test, so some teachers don't want the students to use them ever. It can be a hard road. [SE30]

Small Group. Teachers were restricted in their use of small group test administrations in spite of this arrangement being documented in a student's IEP.

We as Special Educators have been instructed to limit those students in the small group setting because that could indicate that we are not meeting their needs in the [state content] for testing. I disagree! I feel that high stakes testing should allow for every possible success for all students. If small group testing is a support on the IEP then all formal testing would be occurring in that format as well. [SE39]

Technology. Using the computer for online assessments was physically challenging for younger students.

Many of my students have a difficult time with the mouse because they are much more used to Ipads. Most have never used a mouse because they don't have computers at home, only tablets, Ipads or smartphones. My older kids will figure it out, but my younger ones (K-2nd) need a significant amount of help, especially on [district assessment] when they ask for clicking and dragging responses. Often I will sit with each individual and work the mouse while they point to where things should go. This

is time consuming, but so is trying to teach them mouse skills when they will only use it three times a year on the [district assessment]. [SE13]

Using computers for online assessments was also challenging for students with certain disabilities. As the following example shows, specific accessibility features could be more of a distraction than a help for some students. Teachers sometimes suggested other possible supports that might be more helpful, but which may not have existed in the testing platform.

However, with all this said, what we find is our emotionally, behaviorally impaired students struggle with online tests at times. We find them simply clicking through the tests to complete it and be done with it. Paper/pencil tests have gone to the wayside and they are not able to be ordered. Some of the highlighting features are also a distraction and students “play” with them rather than use them as a tool.... Regarding the online format features that could benefit EBD students... I wonder if a timing feature would be beneficial. One in which it would not allow them to select a multiple choice answer for a specified amount of time, thus encouraging taking more time to look back at the answer. I also wonder if a feature that would not allow them to move ahead so quickly would be beneficial. For example, it may not let them scroll down through reading material faster than an average rate of reading would take for that age. Paper/pencil testing for mathematics seems to encourage the student to take more time and do more “scratch paper” work to help them solve a problem. [SE23]

Many of my students receive oral testing. They receive the text-to-speech accommodation for testing. They make statements how it sounds like a robot and the automated voice confuses them. If they could be provided clarification on the questions many of them would score much higher. [SE38]

Software. Another way teachers perceived that they were limited in deciding on accommodations was by what accommodations were offered in the software that was used.

We are limited to choosing accommodations that are in the “data bank” of this software. [SE12]

What testing accommodations we choose on state tests are not an issue. We cannot (due to the way [district data assessment system] is set up) choose anything that is not listed as a classroom accommodation for testing.... The accommodations section in the [district data assessment system] software consists of three columns: 1. Supplementary Aids/Service/Supports; 2. Amount of Time/Frequency/Conditions; and 3. Location. The first column provides a “pull down” menu from which we must choose an ac-

accommodation; in the second column we are “free” to explain further what the accommodation should “look like”. The third column is not problematic as it supplies, in a drop down menu, a wide variety of locations of where the accommodation must take place. We have asked several times that the first column drop down menu provide a choice such as “Alternate test format.” In that way in the second column we could state conditions such as: provide test bank, multiple choice no more than three selections, chunk matching in groups of no more than five, etc. Right now the only test choices we have are test in alternate area, extended time on tests, and modify tests. We do not want teachers to modify tests, we want them accommodated (reformatted). [SE11]

We use [district assessment] in my district... Unfortunately there are no accommodations built in other than a highlighter. It would be so nice if the math could be read aloud, to have a line-guide, and to have a zoom feature. [SE13]

Implementation Challenges

Teachers also identified several challenges in implementing accessibility features and accommodations. The move to inclusion and staffing issues were the major implementation challenges mentioned.

Inclusion. The evolution of the role of some special education teachers into general education intervention specialists created challenges for these teachers in working with general education teachers. The change had disrupted continuity in the provision of accessibility features and accommodations to students with IEPs.

My school has just this school year become a “full inclusion” school, where our intervention specialists rarely pull students out of the classroom. I feel that we struggle at this point, in my middle school building, to “provide the students with work on their level and provide the extra support one-on-one or small group support to make sure the state standards are still being addressed.” Many teachers feel that a student who can’t “do the general curriculum” doesn’t belong in the general education setting. [SE30]

Finding time and ways for teachers who are providing extra support and small group support within the general class setting, as well as general education teachers who understand these concepts and are willing and able to either pair with an intervention specialist or to do these things on their own are few and far between.... The “elimination” of resource rooms and “pull-out” programs seems to have also eliminated a continuum of services. For example, we have sixth grade students with IEPs and Intellectual Disability identification category who read at a third grade reading level,

yet they will take the state test without a reader. So, we don't include "reader" on their Language Arts accommodations. When and how do we provide a chance, a safe, intensive, multi-sensory chance to read text at their instructional level so that they don't always read at a third grade level? We, as intervention specialists in particular, in my building are desperately looking for places where this is working or books to read which explain and instruct us in how to DO this! [SE31]

In the general education setting, it was expected that the general education teachers were responsible for providing accommodations to students. Sometimes this included support from the special educator or a paraprofessional.

I would say that any barrier a student with a disability faces is not so much listing them in the IEP, but the lack of the "spirit" of carrying out these by general education teachers. Extra time, tests read, testing in an alternative location are clear and easy to implement. Checking often for understanding, prompt to initiate task, etc. are not so easy to implement, yet no less important. Yet for a student who has difficulty with focus, they are critical for success.... Our administration has firmly stated that providing accommodations in the general education class "falls squarely on the shoulders of the general education teacher." That having been said, special education, along with the help of paras, helps facilitate this. [SE12]

It is up to the individual teacher to embed specific test prep into the curriculum. In the classes I've been a part of, none of the teachers have been able to accommodate specific students for test prep type activities. I don't think students, though, expect that either. [SE23]

However, sometimes this expectation was not always met.

We encourage our gen ed teachers to record tests; however, most prefer to rely on a para to read their tests. In our building we have a system where a teacher signs up for a para on the day and time his/her test needs to be read. A para is then assigned to do so. [SE12]

General education teachers are encouraged to record their teacher made tests. (A few do; most don't.) This helps students prepare for dealing with recorded state tests. [SE13]

Teachers voiced the need for greater consistency in the accommodations used across assessments and in the request process. Students could use some accommodations in one assessment but not in another.

We have students with various special needs, with some more impacted academically while others more behaviorally. For state and national tests, it would be nice if there was some consistency with testing. The process for requesting accommodations is different, with some not needing approval at all. Some tests are very specific with timing and groupings [college-entrance exam] while others are more flexible [college-entrance exam, work skills assessments]. [SE11]

There needs to be a basic “tool box” that is standard on ALL testing, not matter WHO makes the test! Our kids have it hard enough already, battling various disabilities and struggles, I feel like the state makes it EVEN MORE difficult for them to succeed, which is not the message we should be getting. [SE13]

Staff. Accommodations were not necessarily readily available to students due to staff shortage.

What makes things challenging, is if a student has a different accommodation than anyone else, they have to test by themselves. This makes it challenging to find enough staff to supervise/proctor all of the general education population as well as students with accommodations. [SE11]

Not including specific accommodations in the IEP circumvented the difficulty in providing them, especially those that would require staff personnel to implement them.

Accommodations like reading the script are great, but require too much manpower to actually do and we are discouraged from writing those into the IEP. Having an audio track available that reads it aloud would be awesome to allow students to be with their mainstream peers to test and still have the accommodation. [SE22]

EL Teachers' Thoughts on Constraints

EL teachers expressed constraints they had for implementing accessibility features and accommodations. These included a knowledge gap, implementation concerns, and limited accommodations options.

Knowledge Gap

EL teachers' understanding varied about which accommodations were allowable in assessments for different student groups. They also were unsure what data to use or how to use it. A need for professional development was also expressed.

ELs were not always considered general education students. It was uncertain to this EL teacher who could receive accessibility features and accommodations.

General education students do not qualify for assessment accommodations or supports. The student must have an IEP, LEP, or 504 to be eligible. At least that is what I've always understood to be the case. On state assessments, only students with a 504 or an IEP are allowed accommodations. [EL36]

EL teachers did not know what the decision-making process entailed and suspected that this gap was school-wide.

I need to work – to find out who has an IEP, what is/are the accommodation(s) for that student, what should I be aware of when thinking about who and how needs more support.... This is what is clear to me: After a student has been referred as “not progressing as their peers,” our special education staff member creates an accommodation or an intervention for that student. I'm unclear how the accommodation or intervention is decided. I am also unclear how the accommodation's or intervention's timeline is decided. I am also unclear how the accommodation or intervention is carried out. Sometimes a volunteer does it. Sometimes the classroom teacher does it. Sometimes the special education teacher does it.... I wonder when it's appropriate to make recommendations for assessment, who do I talk to, at what point will I receive information on who to make recommendations to and what does it mean to offer make accessibility and accommodations recommendations at my school and my district? It feels like the accessibility and accommodations recommendations process is a very foggy, unclear path at my school. This might be the cause for all schools....??? However, I would like to know when it's appropriate to make recommendations and who I talk to OR the path to go to make the suggestions a reality. Also, I would like to know what behaviors I should be looking to before making recommendations; is there is a list of “observables”?? [EL20]

Data. EL teachers did not know what data they should use and where to find such data, if available, that would allow them to make informed accessibility features and accommodations decisions.

I don't know where to look for data to know what an appropriate and effective accessibility feature and/or accommodation would be. I also would like to know what data I'm looking for. [EL21]

Professional Development. Some teachers indicated that they had not received much professional development to illuminate the decision-making process for accessibility features and accommodations, this was not always conducive to teachers.

Clearer guidance (maybe with a video clips on how to go about choosing these accommodations; not everyone has time or the ability to get substitutes to go to workshops or listen to webinars during school time). [EL10]

Teachers requested more explicit guidelines.

Not much professional development is offered. The only training I ever remember giving was a brief overview at an [English language proficiency assessment] training since I am the Site Assessment Coordinator for my school. [EL21]

Implementation Concerns

The need for teacher input was reflected in some comments. An EL teacher surmised that a challenge in advocating for test accommodations for her students was due, in part, to a gap in general education teachers' provision of accommodations to students.

One reason could be that general education teachers don't input accommodations, and they might not even know what accommodations exist for these students as well. [EL20]

In other cases, the EL teacher who valued a team approach could not determine why she was not included in IEP team meetings even though she also taught ELs with disabilities.

As the teacher for English language learners, it has been pressed upon me to reach out to all special service providers and Special Education case managers/teachers when we share students. Rarely do I receive the same "courtesy" from my colleagues. I am often forgotten when IEP meeting notices are sent out. I don't know if it's a territorial issue between departments or just oversight. If we are all working to support the same child, it is much more effective to work as a team. When I am able to work with cooperative teachers, it makes a world of difference to the success of our student. [EL36]

Limited Accommodations Options

Teachers identified several factors related to accommodations options that were seen as constraints. These factors were exit status, ELs with disabilities, and EL status.

Exit Status. Some teachers were concerned that once ELs became proficient in English and exited from EL services, they were no longer eligible to receive accommodations.

No they are not available to exited students. The exited students are considered to be English language proficient and therefore do not receive supports under the Title III program. [EL36]

Not being eligible for testing accommodations did not preclude former ELs from receiving other types of support in the classroom.

Sometimes accommodations are discontinued when a student tests out of ESL on the [ELP] assessment however, teachers can still provide language support when needed.... [EL28]

At times teachers reported that continuing to provide accommodations for former ELs entailed other creative strategies such as developing a 504 plan for a student who needed more time on assessments.

I feel that as long as it is justified and accommodated in the classroom that is how it should be on the test. Last year we had a student exit EL program, but that still doesn't mean she couldn't use extra time on tests. We found a way for her to get a 504 and she got extended time the whole year on all tests and she was extremely successful. I have no doubt that she will go on to graduate high school and college, but without extended time she would not be quite the success that she is....Also frustrating is with their accommodations and they are successful, they want to take their accommodations away. [EL29]

ELs also had their own strategies to continue using accommodations on assessments.

Older ELLs are aware of this and have stated to me that they don't want to do well on the language proficiency exam because it will impact their accommodations on other exams. [EL28]

ELs with Disabilities. Teachers believed that ELs with disabilities should have the same accommodations on different types of assessments, such as for content and the English language proficiency assessments.

I think that dually identified (SpED/ESL) students should be given their IEP accommodations on the [state] ELPA [English language proficiency assessment].

The only IEP accommodation that I can think of that is not addressed by the self-paced computer test is read aloud. I did have three students last year who qualified for read aloud because of fluency goals on their IEP, etc. but could not have it on [English language proficiency assessment]. [EL29]

EL Status. EL teachers voiced the concern that the limited selection of accommodations and resources for ELs, especially for new students, prevented them from fairly demonstrating their knowledge fully.

The biggest thing I would like to point out is the level of inequality faced by our newly arrived EL students. They are expected to take grade-level examinations in a language they barely know (if at all) and there are extremely limited accommodations available to them. Our tests need more pictures and other visual supports, we need more dual-language tests and more access to digital bilingual dictionaries in order to level the playing field and allow these students to properly show what they really know. [EL9]

I would love to see all the test read aloud, even the reading test. As it is now, none of the reading test can be read aloud, not even the questions. Last year I had a brand new student start the first day of state testing, and she had to take the assessment. The child had no English, but I was to administer the test anyway, because the state says they want baseline. [EL29]

In contrast, this EL teacher explained that students new to computer-based assessments are given practice opportunities to become familiar with the accessibility features and accommodations that were available.

The students are trained and given time to practice with a demo assessment prior to their test date. They must learn how to operate the tools such as highlighting, line readers, etc. There is a support option for a student to take a paper-pencil test if necessary on the LEP assessment forms. We would consider that if the student didn't have any experiences with computers or had a disability that might cause the student not to

be successful with the online test. We haven't had that happen, but it's nice to know there are alternatives that better suit the students' needs. [EL36]

Summary of Theme 3 (Constraints)

All three groups of teachers expressed that they did not have adequate knowledge to make decisions about accessibility features and accommodations. They believed they had insufficient guidance on a decision-making process, terminology, the request process for accommodations, the exclusion of or inconsistent input of teachers, and a lack of understanding about which supports could be provided fairly to students in which assessments and in class. General education and special education teachers did not mention any issues about use of data for decision making; only a singular comment was noted by an EL teacher who claimed to not have sufficient knowledge about what kind of data would be useful to make decisions. General education and EL teachers commented that professional development on accessibility features and accommodations was not offered to them. Special education teachers did not make that comment.

The three groups of teachers also had challenges in the provision and implementation of accessibility features and accommodations. All teacher groups expressed that there were insufficient practice test opportunities for students to learn how to use the accessibility features and accommodations in online assessments. Both special education and EL teachers stated that general education teachers did not always take the time to become familiar with and provide these supports to students. Moreover, the inclusion model in schools impacted whether general education teachers provided supports in the classroom that were identified for students.

General education teachers reported that choices of accessibility features and accommodations were confined to the embedded tools in online assessments and were limited for math. For EL teachers, once EL students exited from EL services, supports were not always continued in the classroom. Only general education teachers expressed wanting to know how to provide and adapt accommodations in formative assessments and classwork. Special education and EL teachers spoke of challenges and limitations with specific accommodations. These two teacher groups also wanted more consistency in available tools across different assessments.

On technology issues, special education teachers stated it was challenging for younger students to manipulate computer devices and the type of software restricted what options were available. For general education teachers, computers were not always readily available for students to use. Both special education and general education teachers, but not EL teachers, cited challenges like resource shortages, including limited staff to provide and implement accessibility features and accommodations to students.

Conclusions

The focus groups generated considerable back and forth among educators. From their discussions, we identified several implications for decision making and for needed research. As a result of these, we make several recommendations for states to consider.

Implications

Teacher discussions in the focus groups shed light on areas that would enhance decision making and implementation of accessibility features and accommodations for students in assessments and the classroom:

- Teachers did not have a knowledge base about accessibility features and accommodations to make appropriate decisions for all student groups. In particular, teachers rarely commented on accessibility features for any group of students.
- Input from all teachers—especially general education and EL teachers—was not always included or acknowledged in decisions.
- Data generally were not documented, shared, and used by all educators to help decide on appropriate accessibility features and accommodations, especially in the classroom.

Future Research Needs

Several research needs were suggested by the focus group discussions. Questions that could be addressed include:

- What accessibility features and accommodations are provided to all students groups, especially general education students?
- What is the decision-making process for students with 504 plans and for ELs with disabilities?
- What and how are accessibility features and accommodations implemented in the classroom?
- What kind of accessibility features and accommodations would be useful for math?
- What accessibility features and accommodations are provided to ELs who have been exited from EL services?

- How does the use of accessibility features and accommodations in general education pre-referral teams, such as in Response to Intervention, make a difference for students?
- What accessibility features and accommodations are used in district and formative assessments?
- How does the inclusion model influence how students are provided accessibility features and accommodations?

Recommendations

A number of recommendations emerged from the focus group discussions:

- Provide user-friendly written guidance in clear consistent language available to all educators on accessibility features and accommodations decision-making processes for different student groups and different school-based teams.
- Provide guidance on the types of data to collect, document, and share across school levels to make decisions on accessibility features and accommodations for students.
- Provide professional development on accessibility features and accommodations for all educators, not only for specialists or test coordinators.
- Include input from all team members, especially general education teachers, in special education and English learner teams to inform team decisions.
- Include input from all team members, especially for students with disabilities, ELs, and ELs with disabilities.
- Provide sufficient opportunities on practice tests for teachers and students to become familiar with accessibility features and accommodations and make enough computers available to do so.
- Provide additional staff to support students with accessibility features and accommodations.

References

- Hatten, J. E. (2014). *Optimal size for online asynchronous text-based focus group discussions: A mixed methods study* (Doctoral dissertation, University of Minnesota).
- Kruger, R., & Casey, M. (2009). *Focus groups: A practical guide for applied research* (4th ed.). Thousand Oaks, CA: SAGE.
- Larson, E. D., Thurlow, M. L., Lazarus, S. S., & Liu, K. K. (submitted). *Paradigm shifts in states' assessment accessibility policies: Addressing challenges in implementation*.
- Liu, K. K., Goldstone, L. S., Thurlow, M. L., Ward, J. M., Hatten, J., & Christensen, L. L. (2013). *Voices from the field: Making state assessment decisions for English language learners with disabilities*. Minneapolis, MN: University of Minnesota, Improving the Validity of Assessment Results for English Language Learners with Disabilities (IVARED).
- Miles, M., Huberman, A., & Saldaña, J. (2013). *Qualitative data analysis: A methods source-book*. Thousand Oaks, CA: Sage.
- PARCC. (2015). PARCC accessibility features and accommodations manual 2015-2016 (4th ed.). Washington, DC: Partnership for Assessment of Readiness for College and Careers. Available at <https://parcc-assessment.org/content/uploads/2017/11/Accessibility-Features-and-Accommodations-Manual-4th-Edition.pdf>
- Shyyan, V. S., Thurlow, M. L., Larson, E. D., Christensen, L. L., Lazarus, S. S. (2016) *White paper on common accessibility language for states and assessment vendors*. Minneapolis, MN: University of Minnesota, Data-Informed Accessibility – Making Optimal Needs-based Decisions.
- Smarter Balanced. (2014). Smarter Balanced Assessment Consortium: Accessibility and accommodations framework. Available at <https://portal.smarterbalanced.org/library/en/accessibility-and-accommodations-framework.pdf>
- Thurlow, M. L., Larson, E., Lazarus, S. S., Shyyan, V., & Christensen, L. (2017). *Educators' experiences with and attitudes toward accessibility features and accommodations*. Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes, DIAMOND Project.
- Warren, S., Thurlow, M., Christensen, L., Shyyan, V., Lazarus, S., & Chartrand, A. (2016). Forum on common language for states and assessment vendors. Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Available at <https://nceo.umn.edu/docs/OnlinePubs/2016ForumReport.pdf>

Appendix A

Focus Group Questions

Day 1

1. What is your experience with accessibility features and accommodations?
2. Describe the accessibility and accommodations decision-making process in your school.

Day 2

3. How do you make accessibility and accommodations recommendations for assessments? If you are not the person making these recommendations, who is, and how do they make them?
4. What data do you use when determining appropriate and effective classroom accessibility features and accommodations? In what ways are these data helpful?

Day 3

5. Your state department of education is participating in developing an online training module to help educators make decisions related to accessibility and accommodations. We would like you to provide a description of a student (an English learner, a student with a disability, a general education student, etc.) who uses accessibility features and/or accommodations. Please use a pseudonym for the student to ensure confidentiality. What are the student's needs, characteristics, and preferences? What data and other contextual factors (e.g., family support) were considered in making accessibility and accommodations decisions for this student? How familiar was the student with selected accessibility features or accommodations prior to the test? How did selected accessibility features and accommodations impact the student's participation and performance?

Day 4

6. If you were to create a tool for selecting designated features and accommodations for a student (e.g., Individual Student Assessment Accessibility Profile, Personal Needs Profile), how would you go about this process?
7. Is there anything else related to accessibility and accommodations you would like to add?

Appendix B

Accessibility Features and Accommodations

Background Information on Accessibility Features and Accommodations

New technology-based instruction and assessments incorporate a variety of accessibility supports that are available to meet the individualized needs and preferences of students. Approaches to these supports may vary depending on state contexts and the nature of assessments. Many states and consortia use a three-tiered approach to categorize accessibility supports for statewide assessments and classroom instruction. The three tiers can have different names, but here we will call them **universal features**, **designated features**, and **accommodations**.

Universal features are accessibility supports that are available to all students as they access instructional or assessment content. They may be either embedded and provided through instructional or assessment technology (e.g., breaks) or non-embedded and provided at the local level (e.g., Thesaurus).

Designated features are accessibility supports that are available to students when an educator (or team of educators including the parents/guardians and the student if appropriate) familiar with the student's needs recommends them. Embedded designated features (e.g., text-to-speech) are provided through instructional or assessment technology, while non-embedded designated features (e.g., bilingual dictionary) are provided locally. Not all states participating in the DIAMOND project have designated features available on statewide assessments.

Accommodations are changes in procedures or materials that allow for equitable access to the content of instruction and assessment, creating more valid assessment results for students who need them. Embedded accommodations (e.g., American Sign Language) are provided digitally through instructional or assessment technology, while non-embedded accommodations (e.g., scribe) are provided locally. Accommodations are typically available for students whose IEP or 504 accommodation plan documents a need. Some states also offer accommodations for English learners (ELs).

For students with an Individualized Educational Plan (IEP) or 504 Plan, their IEP or 504 team should make decisions on what designated features and/or accommodations need to be provided. Some states may also have a decision-making team for ELs that handles these types of decisions. States and consortia may use a **Personal Needs Profile (PNP)**, an **Individual Student Assessment Accessibility Profile (ISAAP)**, or other similar tools to document which designated features and/or accommodations a student needs to be made available to that student. The use of universal features may not be documented because they are available to all students.

Note: In most cases, we have put the most common name for a support in bold while putting the other names in parentheses. However, the bolded name also reflects our judgement on which name would be most accessible for all students, including English learners and students with disabilities.

Note: Different consortia place some of the accessibility features listed here in different categories. For example, line reader is an embedded designated feature for ELPA 21, while it is an embedded universal feature in PARCC, NCSC and WIDA. We have chosen to let the majority rule in most cases.

Note: In some cases, we have chosen to group together similar supports for the sake of clarity. PARCC, for example, distinguishes between reading test directions aloud in a student's native language and clarifying directions in a student's native language. We have grouped those supports together here.

Embedded Universal Features

Support	Description
Amplification (Audio amplification, increase volume, audio aids)	The student raises or lowers the volume control, as needed, using headphones.
Breaks	The number of items per session can be flexibly defined based on the student's need. Breaks of more than a set time limit will prevent the student from returning to items already attempted by the student. There is no limit on the number of breaks that a student might be given. The use of this universal feature may result in the student needing additional overall time to complete the assessment.
Calculator	An embedded on-screen digital calculator can be accessed for calculator-allowed items when students click on the calculator button. When the embedded calculator, as presented for all students, is not appropriate for a student (for example, for a student who is blind), the student may use the calculator offered with assistive technology devices (such as a talking calculator or a braille calculator).
Digital notepad (notepad)	The student uses this feature as virtual scratch paper to make notes or record responses.
Eliminate answer choices (answer choice eliminator, strikethrough)	The student uses this feature to eliminate those answer choices that do not appear correct to the student.
English dictionary	An English dictionary may be available for the student. The use of this universal feature may result in the student needing additional overall time to complete the assessment.
English glossary (pop-up glossary)	Grade- and context-appropriate definitions of specific construct-irrelevant terms are shown in English on the screen via a pop-up window. The student can access the embedded glossary by clicking on any of the pre-selected terms. The use of this feature may result in the student needing additional overall time to complete the assessment.
Expandable passages	The student is able to expand each passage so that it takes up a larger portion of the screen as the student reads. The student can then retract the passage to its original size.
Global notes	During ELA performance tasks, notes are retained from segment to segment so that the student may go back to the notes even though the student is not able to go back to specific items in the previous segment.
Highlighter (highlight tool)	The student uses this digital feature for marking desired text, items, or response options with a color.
Keyboard navigation (keyboards shortcuts, two-switch system)	The student is able to navigate throughout test content by using a keyboard, for example, arrow keys. This feature may differ depending on the testing platform.
Line reader (line reader mask tool, line reader tool, line guide)	The student is able to use this feature as a guide when reading text.
Mark for review (flag for review, bookmark)	The student is able to flag items for future review during the assessment.

Support	Description
Math tools	These digital tools (i.e., embedded ruler, embedded protractor) are used for measurements related to math items. They are available only with the specific items for which one or more of these tools would be appropriate.
Spellcheck	Writing tool for checking the spelling of words in student-generated responses. Spellcheck only gives an indication that a word is misspelled; it does not provide the correct spelling.
Writing tools	The student uses writing tools to format and edit written responses, including cut and paste, copy, underline, italicize, bold, and undo/redo.
Zoom (item-level) (magnification, screen magnifier)	The student can enlarge the size of text and graphics on a given screen. This feature allows students to view material in magnified form on an as-needed basis. The student may enlarge test content at least fourfold. The system allows magnifying features to work in conjunction with other accessibility features and accommodations provided.

Non-embedded Universal Features

Support	Description
Breaks (frequent breaks)	Breaks may be given at predetermined intervals or after completion of sections of the assessment for students taking a paper-based test. Sometimes students are allowed to take breaks when individually needed to reduce cognitive fatigue when they experience heavy assessment demands. The use of this universal tool may result in the student needing additional overall time to complete the assessment.
English dictionary	An English dictionary can be provided to the student. The use of this universal feature may result in the student needing additional overall time to complete the assessment.
Noise buffer (headphones, audio aids)	The student uses noise buffers to minimize distraction or filter external noise during testing. Any noise buffer must be compatible with the requirements of the test.
Scratch paper (blank paper)	The student uses scratch paper or an individual erasable whiteboard to make notes or record responses. All scratch paper must be collected and securely destroyed at the end of each test domain to maintain test security. The student receives one sheet (or more as needed) of scratch paper. A marker, pen, or pencil should be provided as well. The student can use an assistive technology device to take notes instead of using scratch paper as long as the device is approved by the state. Test administrators have to ensure that all the notes taken on an assistive technology device are deleted after the test.
Thesaurus	A thesaurus containing synonyms of terms can be provided to the student. The use of this universal tool may result in the student needing additional overall time to complete the assessment.

Embedded Designated Features

Support	Description
Answer masking	The student is able to block off answer choices.
Color contrast (invert color choice, alternate color themes)	The student is able to adjust the text color and screen background color based on the student's need.
General masking (masking)	The student is able to block off content that is not of immediate need or that may be distracting. Masking allows students to hide and reveal individual answer options, as well as all navigational buttons and menus. The student is able to focus his/her attention on a specific part of a test item by masking.
Text-to-speech (audio support, spoken audio)	The student uses this feature to hear pre-recorded or generated audio of tasks.
Turn off universal features (turn off any universal tools)	This feature allows disabling any universal feature that might interfere with student performance, or be distracting to the student.
Zoom (test-level) (increase/decrease size of text and graphics)	The test platform is pre-set to be enlarged for the student before the test begins.

Non-embedded Designated Features

Support	Description
Bilingual dictionary (Word-to-word dictionary [English/native language])	A bilingual/dual language word-to-word dictionary is provided to the student as a language support.
Color contrast	Test content of online items may be printed with different colors.
Color overlay	The student is able to overlay a semitransparent color onto paper-based test content.
Human reader (human read aloud, read aloud)	The student has test content that is provided by an audio file in a computer-based test, read by a qualified human reader.
Magnification device (low-vision aids)	The student adjusts the size of specific areas of the screen (e.g., text, formulas, tables, and graphics) with an assistive technology device. Magnification allows increasing the size to a level not provided for by the zoom universal feature.
Native language translation of directions (translated test directions, general administration directions read aloud and repeated in student's native language)	Translation of general test directions (not item prompts or questions) is a language support available to students prior to starting the actual test. Test directions can be provided either by being read aloud or signed by a test administrator who is fluent in the language. Translations may be provided by a human or the test platform.
Paper-and-pencil test (paper-based edition)	The student takes a paper-and-pencil version of the test.
Separate setting (alternate location)	Test location is altered so that the student is tested in a setting different from that made available for most students.
Student reads test aloud (student reads assessment to him- or herself)	The student reads the test content aloud. This feature must be administered in a one-on-one test setting.

Embedded Accommodations

Support	Description
American Sign Language (ASL) (ASL video)	Test content is translated into ASL video. ASL human signer and the signed test content are viewed on the same screen. Students may view portions of the ASL video as often as needed.
Closed captioning	Printed text that appears on the computer screen as audio materials are presented.
Streamline	This accommodation provides a streamlined interface of the test in an alternate, simplified format in which the items are displayed below the stimuli.
Unlimited replays (repeat item audio)	The student is able to replay items in the listening domain an unlimited number of times.
Unlimited re-recordings	The student is able to rerecord answers in the speaking domain an unlimited number of times.

Non-embedded Accommodations

Support	Description
Abacus (individualized manipulatives)	This accommodation may be used in place of scratch paper for students who typically use an abacus.
Assistive technology (alternate response options, word processor or similar keyboarding device to respond to test items)	The student is able to use assistive technology, which includes such supports as typing on customized keyboards, assistance with using a mouse, mouth or head stick or other pointing devices, sticky keys, touch screen, and trackball, speech-to-text conversion, or voice recognition.
Braille	A raised-dot code that individuals read with the fingertips. Graphic material (e.g., maps, charts, graphs, diagrams, and illustrations) is presented in a raised, tactile format (paper, thermoform, or refreshable braille). Both contracted and uncontracted braille (English Braille, American Edition) are available; Unified English Braille will be adopted for future assessments. Nemeth code is available for math.
Braille writer / note-taker	A blind student uses a braille writer or note-taker with the grammar checker, internet, and file-storing functions turned off.
Calculator (calculation device)	A student uses a specific calculation device (e.g., large key, talking, or other adapted calculator) other than the embedded grade-level calculator.
Extended time	Students have until the end of the school day to complete a single test unit.
Human signer (sign language, sign interpretation of test)	A human signer will sign the test directions to the student. The student may also dictate responses by signing.
Large print test booklet (large print version of test, large print edition)	A large print form of the test that is provided to the student with a visual impairment.
Multiplication table	A paper-based single digit (1-9) multiplication table is available to the student.
Print on request (print on demand, paper version of test items)	The student uses paper copies of individual test items.
Scribe (human scribe, scribed response, test administrator entering of responses for student)	The student dictates her/his responses to an experienced educator who records verbatim what the student dictates.
Speech-to-text (student responds orally using external augmentative and/or alternative communication device or software)	The student uses an assistive technology device to dictate responses or give commands during the test.
Word prediction external device	A student with a physical disability that severely limits him/her from writing or keyboarding responses or a disability that severely prevents him/her from recalling, processing, or expressing written language uses an external word prediction device that provides a bank of frequently- or recently-used words onscreen after the student enters the first few letters of a word.

Appendix C

Exit Survey Results Summary: 44 Responses

1. The online focus group which I participated in was of high quality.

1. Strongly Disagree	1	2.3%
2. Disagree	1	2.3%
3. Neutral	0	0%
4. Agree	17	38.6%
5. Strongly Agree	25	56.8%

2. The online focus group which I participated in was relevant to my work.

1. Strongly Disagree	1	2.3%
2. Disagree	0	0%
3. Neutral	1	2.3%
4. Agree	9	20.5%
5. Strongly Agree	33	75%

3. Results from the online focus group will be useful to the field.

1. Strongly Disagree	0	0%
2. Disagree	0	0%
3. Neutral	2	4.5%
4. Agree	8	18.2%
5. Strongly Agree	34	77.3%

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