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4. Project Narrative

A. ABSOLUTE PRIORITIES

South Carolina's Adding Value to Accommodations Decision-making for English Language Learners and Students with Disabilities (AVAD) project meets all four of the absolute priorities

AVAD involves collaboration with two institutions of higher education, the University of Oregon and the Michigan State University, as well as the consulting group Psychometric Inquiries, headed by two recently retired University of Nebraska professors. The collaborative includes two State Collaboratives on Assessment and Student Standards (SCASS) groups: the Assessing Limited English Proficient Students (LEP) SCASS and the Assessing Special Education Students (ASES) SCASS. These consortia include 13 and 25 member states. The combination of academic and technical expertise with input from such a broad range of states will allow the AVAD project to validate and enhance the Selection Taxonomy for Testing English Language Learners (STELLA) and the Accommodation Station (AS).

With its emphasis on innovative accommodations tools and item-level strategies that increase access for students, AVAD allows for the measurement of student academic achievement using multiple measures from multiple sources. Similarly, since the accommodations decision tools that the project is investigating and refining include exemplar items that enable ongoing data collection on the effect accommodations produce for individual students, the AVAD provides a means to chart student progress over time. Finally, the AVAD objective of developing Computer-based Access-Enhanced science item prototypes targeting English language learners and students with disabilities represents an effort to develop technology- and performance-based academic assessments. The science items will be web-based and computer-delivered, and will involve innovative, inquiry- and performance-based science tasks aimed to increase access for English language learners and students with disabilities.

B. COMPETITIVE PREFERENCES

1. The objectives of the project entail investigating, enhancing, and publishing two online accommodations decision-making tools developed to support ESOL teachers and IEP teams in assigning appropriate accommodations in a more rigorous and consistent manner. An additional

AVAD objective involves the development of computer-delivered, Access-Enhanced science items designed to increase access and improve the accuracy of results for English language learners; such prototypes may form the basis of an alternate assessment and/or a parallel, comparable assessment.

2. The AVAD is a collaborative effort among South Carolina and two State Collaboratives on Assessment and Student Standards (SCASS) groups: the Assessing Limited English Proficient Students (LEP) SCASS and the Assessing Special Education Students (ASES) SCASS. The combined total of participating states in both groups is thirty-eight. Collaboration among such a large number of states increases the chance of the project for capacity-building on a large scale.
3. Finally, dissemination is a key element of the AVAD project. Both the AS and the STELLA, along with accompanying User and Technical manuals, will be published (and available free of charge to download) on the SDE Web site to provide easy access to all interested parties. A professional development video based on existing ASES materials will also be produced, and reports and presentations made at the national level.

C. SELECTION CRITERIA

4.1 Need

(i) Magnitude and Severity of the Problem

Children with disabilities and English language learners (ELLs) represent an increasing portion of the population in South Carolina and the nation. From 1994 to 2004, South Carolina registered an increase of 526% in the numbers of ELLs, the largest in the nation (Lazarin, 2006). The Hispanic population in our state increased 211% from 1990 to 2000 (Census 2000; Kochlar, Suro, and Tafoya, 2005), one of the highest percent increases in the nation. The only non-southern state with a comparable increase was Nevada (Kochlar, Suro, and Tafoya, 2005).

ELLs are rapidly becoming an increasingly significant proportion of the school population in our state. From 1990 to 2000, the percentage of children of immigrants in South Carolina increased 77% in grades PK–5 and 86% for grades 6–12 (Capps et al., 2005). For the 2005–06 school year, 20,005 ELLs were enrolled in our public schools—an increase of 25% over the previous year, and an increase of 58%

over the year before that. South Carolina's case exemplifies that of many Southeastern and interior states that are experiencing unprecedented growth of Hispanic immigrants (Capps et al., 2005).

In South Carolina, 47,708 students in grades 1–12 have a learning disability. Of these, 21,196 students have speech or language impairment (South Carolina Department of Education Statewide Summary, December 2005). Special education classes served approximately 15% of all students in grades 1–12 during 2002–03 (Kid's Count State Report for South Carolina, 2005). In elementary school, 15,648 six and seven year olds and 16,300 eight and nine year olds—approximately 16% of their age groups respectively—were enrolled in special education classes during 2002–03. Of 8 and 9 year olds, 16% of Whites and 15% of African American and Others were in special education.

Assessing these students and obtaining accurate results about what they know and can do is especially challenging because of the barriers that traditional assessment practices pose for them. Prior to the passage of the No Child Left Behind Act of 2001 (NCLB), ELLs and students with disabilities were exempted from assessments in some states, which led to a dearth of information about their achievement. Without such information, inferences about their educational needs are impossible to make.

Current best practices (and this project) advocate including all students in rigorous, standards-based instruction and assessments through, when necessary, the use of accommodations and assessment practices that increase access without lowering expectations or altering the construct being measured.

Nonetheless, many states are still struggling with evolving policy changes and burgeoning enrollment of ELLs and students with disabilities, particularly in regions that typically have not had large numbers of such students. Many states have resorted to stop-gap measures as they scramble to learn about new strategies and practices to help serve these students. Compounding the current difficulties, much research on accommodations and other inclusive assessment practices, such as access-based item formats, is still emergent: even the experts lack a clear understanding of precisely what the best practices are. At the crux of the issue is how to increase access without altering the construct being measured: in other words, the goal is to “level the playing field” without providing an unfair advantage to certain students. Educational researchers agree that additional large-scale experimental studies on

accommodations validity and accessible item formats are needed (Sireci, Scarpati, and Li, 2005; Kopriva, 2000; Emmick et al., 2006; Solano-Flores and Trumbull, 2003). States also need to conduct research into the validity of accommodations on their large-scale assessments. Specifically, we need to monitor the delivery of accommodations to ensure their appropriateness and effectiveness for the individual child.

Despite heightened awareness and new knowledge and insights among teachers, most accommodations decisions are made in an inconsistent matter (Tindal and Ketterlin-Geller, 2004). A key point in the accommodations literature is that tools to support systematic and empirically based accommodations decision-making are a critical need (Tindal and Ketterlin-Geller, 2004; Thompson, Thurlow, and Walz, 2000; Thurlow, Elliott, and Ysseldyke, 2003). South Carolina's reliability study of the Accommodation Station as part of the Achieving Accurate Results for Diverse Learners (AARDL) project supports this assertion: very low reliability coefficients (.20 to .30) were found between time one and time two when teachers responded to questions about what accommodations would most benefit individual students with disabilities (Tindal and Ketterlin-Geller, 2006).

South Carolina's Adding Value to Accommodations Decision-Making for English Language Learners and Students with Disabilities (AVAD) project addresses this need directly by enhancing and publishing two empirically based online tools to assist educators in systematic accommodations decision-making. Introducing a component to both systems that will allow states to collect data about accommodations validity in an ongoing manner advances the capacity of allowing states to monitor the delivery and effect of accommodations. Similarly, AVAD explores innovative access-based computer-delivered item formats designed to increase access at the item level for ELLs and students with disabilities. Finally, AVAD includes a comprehensive professional development dissemination piece aimed at educators involved in accommodations decision-making.

(ii) Addressing the Needs of Students at Risk of Educational Failure

Research demonstrates the ELLs and students with disabilities have disproportionately high rates of dropping out of school (Center for School Improvement, 2004; Capps et al., 2005; Fry, 2003).

Hispanic students have the highest rates of dropping out of all students (Cobb et al., 2005). English

language proficiency is a strong predictor of dropout rates: according to a 2003 Pew Hispanic Center report on Hispanic dropout rates in the US, almost 40% of Latino dropouts are students who “do not speak English well” (Fry, 2003). In addition, nearly twice as many Latinos who have been educated solely in the United States (15%) drop out as non-Latino students (Fry, 2003).

The high school dropout rate for students with disabilities is also high. In the 1999–2000 school year, only 57% of students with disabilities who finished or left school did so with a regular diploma (Cobb et al., 2005). The number of students with disabilities who drop out is roughly twice that of non-disabled students (Cobb et al., 2005). In 2002, our state had the lowest graduation rate in the nation: 53% (Greene and Winters, 2005). Thus, in South Carolina it is especially important to focus on ELLs and students with disabilities when addressing graduation rate.

Other measures reflect the vulnerability of these groups. National assessment scores reflect the persistence of achievement gaps for these groups in public schools (Abedi and Dietel, 2004).

	2005 NAEP Reading		2005 NAEP Math	
	Average Scale Score		Average Scale Score	
	Grade 4	Grade 8	Grade 4	Grade 8
ELL	187	224	216	244
Non-ELL	220	263	239	280
GAP	33	39	23	36
Students with Disabilities	190	226	218	244
Student without Disabilities	220	264	240	281
GAP	30	38	22	37

Further work is needed to serve ELLs and students with disabilities better, especially with the increasingly high stakes of assessments. For instance, graduate requirements that rest on assessment results impact the ability of ELLs and students with disabilities to graduate from high school and attend

college, vocational school, and/or otherwise find suitable and productive careers. Intercepting educational failure among these students before it is too late has become a critical issue for education.

The AVAD project directly addresses the needs of students at risk of educational failure by presenting tools to help reduce barriers that ELLs and students with disabilities face in accessing statewide assessments. Such tools increase the probability that their scores will accurately measure their knowledge and abilities rather than their English language proficiency and/or disability. Accurate scores that allow for valid inferences to be made about the educational skills and needs of these students will lead to improved instructional practices and academic achievement.

(iii) Addressing the Needs of Disadvantaged Individuals

The AVAD project addresses the needs of disadvantaged individuals by focusing specifically on assessment strategies aimed to increase access for ELLs and students with disabilities.

ELLs face linguistic and cultural barriers in the educational system and in other aspects of their daily lives (Abedi, Hofstetter and Lord, 2004). Students with disabilities face barriers to learning posed by their specific disabilities (physical, emotional, or mental) and by their educational settings.

Both populations are often further disadvantaged by poverty or lower socio-economic status. Limited English proficiency is strongly correlated with low income and socioeconomic status (Capps et al., 2005). According to *The New Demography of America's Schools: Immigration and No Child Left Behind*, approximately two-thirds of our nation's English language learners come from economically disadvantaged families: in 2000, 68% of ELLs in grades PK–5 and 60% of ELLs in grades 6–12 were classified as low-income (Capps et al., 2005). Such rates of poverty are almost twice those of children not classified as limited English proficient in these grades (Capps et al., 2005).

AVAD's strategies will increase access without lowering the standard or rigor of assessments or expectations for these students. In this way, ELLs and students with disabilities have the best chance of being well-prepared for productive and full lives, including further education and/or entering the workforce, beyond the K–12 years. Effective instruction that provides an opportunity to learn for ALL students is essential to the success and potential of ELLs and students with disabilities. No matter how

access-based an assessment or effective an accommodation, neither will help a student who has not had the opportunity to learn challenging academic content from rigorous standards-based instruction.

4.2 Scope

(i) Goals, Objectives and Performance Indicators

Objective 1: Validate and enhance the Selection Taxonomy for English Language Learner Accommodations (STELLA) and publish the program on the SDE's Web site

Performance Indicators

- MAUT summary statistics (means, medians, and standard deviations) for matching background variables of ELLs with accommodations for 100 case studies to determine the level of endorsement and validation of specific accommodations matched to individual students
- Additional math items (30 at grade 4; 40 at grades 8 and 12) with computer-delivered accommodations to STELLA
- Revised data collection forms based on expert panel reviews
- Production of a STELLA Web site on the SDE's Web site available to all interested parties
- Effectiveness of MAUT training/process as measured by qualitative evaluation
- Utility and validity of enhanced STELLA as measured by evaluation

We will use a MAUT methodology to elicit and validate the decision-making structure underlying the STELLA and ELL accommodations decision-making. The Assessing Limited English Proficient Students (LEP) SCASS, a 13-state consortium, will serve as the expert panel for the process and for reviewing other features of the enhanced STELLA to make it more useful to educators. The enhanced STELLA will be disseminated via the SDE's Web site.

Objective 2. Create and validate a decision-making taxonomy for the Accommodation Station (AS) based on the *ASES Accommodations Manual* and publish the program on the SDE's Web site

Performance Indicators

- Production of an AS Web site on the SDE's Web site

- Decision-making structure (algorithm and software code) for the AS
- Additional math items (30 for grade 4; 40 at grades 8 and 12) with computer-delivered accommodations to AS
- Revised data collection forms based on expert panel reviews
- Utility and validity of enhanced AS (as measured by evaluation)

Objective 2 will enhance and validate a decision-making tool, the Accommodation Station (AS). The AS, developed by Gerald Tindal, is currently undergoing a reliability and usability study as part of the Achieving Accurate Results for Diverse Learners (AARDL) project on which South Carolina is serving as lead state. Specifically, the AVAD will create a decision-making taxonomy to be programmed into the existing system. The taxonomy will be based on the Assessing Special Education Students (ASES) manual and accompanying materials. The ASES SCASS, a 25-state consortium that focuses on the assessment of students with disabilities, will serve as an expert panel and advisory role for the AS portion of the AVAD project. The final product will be published on the SDE's Web site.

Objective 3: Develop 20 computer-based prototypes of Access-Enhanced science items for grade four

Performance Indicators

- Effectiveness of training as measured by evaluation
- 20 computer-based prototypes of Access-Enhanced (AE) science items for grade four
- Ratings of extent to which items a) maintain the construct and b) reduce barriers to access by the LEP SCASS and evaluator

Insights and training materials from the AARDL project will be applied to the item development process. SDE science and measurement specialists will design the computer-based items that will be presented to the LEP SCASS for review.

Objective 4: Disseminate results through reports, the SDE's Web site, User and Technical Manuals for STELLA and AS, the *ASES Professional Development Guide* video, and Web-Ex teleconferences

Performance Indicators

- User and Technical Manuals for enhanced STELLA and AS
- A minimum of 5 AVAD papers or reports published in the year following the project
- Presence of enhanced STELLA and AS on SDE's Web site
- Professional development training materials and video

Objective 4 enables us to share comprehensive information about the accommodations decision-making tools and item development strategies with all interested stakeholders.

(ii) Project's Probability of Changing and Improving State Assessment Systems

AVAD is highly likely to change and improve state assessment systems because it directly addresses a critical need—to include ELLs and students with disabilities on statewide tests in equitable and meaningful ways—for educational agencies. Including these students in assessments is essential if valid and accurate inferences are to be made about what they know and can do. Recent policy changes about the need to instruct and test these students on challenging grade-level academic standards have led many states to begin exploring strategies to increase access to state assessments.

AVAD provides several tools and strategies to address these issues: two decision-making models that add rigor and empirical basis to accommodations decision-making, and innovative Computer-based Access-Enhanced item formats targeting early ELLs and students with certain types of disabilities, especially reading and language-based disabilities. Computer-based items are likely to be of particular interest to states that are changing from paper-based to computer-based assessment formats. Likewise, the focus of the AVAD items on science will benefit many states that are in the earlier stages of developing science assessments to comply with NCLB.

By providing two computer-based tools that will be easily accessible to SEAs and LEAs both inside and outside the AVAD consortium via the SDE's Web site, AVAD will provide guidance to states

in a cost-effective manner. For many budget-strapped states, the ability to access these tools free of charge, as opposed to the time and expense involved in developing their own, is likely to be an attractive opportunity. This cost efficiency and general availability increase the possibility that states will adopt and/or adapt the tools and strategies developed by the AVAD project. Partnering with the LEP and ASES SCASS groups will also enhance the project's potential to influence and impact state assessment programs. The size and diversity of the consortium of states directly involved in the AVAD project make it likely to be implemented in these states as well as others, given the diversity of expertise that will inform the development of the tools and increase their feasibility and usability.

4.3 Significance

(i) AVAD's Contributions to Educational Problems, Issues, and Strategies

AVAD addresses two critical issues confronting education and educational accountability:

1. The validity of accommodated standardized tests, as researchers are unsure whether and to what extent certain accommodations increase the fairness of testing and “level the playing field” by reducing barriers to access for some students, or whether accommodations offer an unfair advantage (Sireci, Scarpati, and Li, 2005)
2. The meaningful, equitable inclusion of English language learners (ELLs) and students with disabilities on large-scale assessments for accountability purposes. Assessing these students accurately is especially challenging because of the obstacles that traditional assessment practices present.

Complicating this issue is evidence demonstrating that teachers often do not assign accommodations in a systematic manner, nor do they employ empirical evidence in the decision-making processes. Instead, they typically rely on expert yet often idiosyncratic judgment when making accommodations decisions (Thurlow, House, Scott and Ysseldyke, 2000; Helwig and Tindal, 2003). Inconsistent accommodations decision-making can lead to the delivery of improper accommodations, which can have an adverse effect on students for whom they are not appropriate (Helwig and Tindal, 2003). Such practices certainly do not promote validity of accommodations.

Despite the threats to validity inherent in accommodated assessment, education stakeholders maintain that it is critical to include ELLs and students with disabilities in large-scale assessments with accommodations so that they can demonstrate what they know and can do. Reducing barriers to assessment is essential if valid inferences are to be made about students' knowledge, abilities, and skills. Facilitating appropriate and effective accommodations decision-making based on a systematic and empirically based methodology is one way to obtain valid information on student performance.

AVAD focuses on increasing the rigor and validity of accommodations decision-making to ensure that students with disabilities and ELLs receive appropriate accommodations that are most likely to increase the validity of assessment and accuracy of score interpretation. By developing and disseminating two decision-making tools that assist educators in the selection of valid and effective testing accommodations, AVAD addresses the lack of consistent and effective accommodations assignment in the field as well as the larger issue of the validity of accommodations.

Similarly, AVAD aims to increase access to large-scale assessment for ELLs and students with reading and language-based disabilities by developing computer-based prototypes of science items. Such items will increase access at the item level and will be based on results from the large-scale AARDL comparability and scalability studies. The computer-based prototypes will address current questions about how to increase access to testing without altering the construct being measured.

(ii) AVAD's Contributions to Theory, Knowledge, and Practices

AVAD will contribute to theory on the validity of accommodations decision-making by conducting a MAUT study. Specifically, this methodology elicits the decision-making inherent in assigning accommodations and yields objective, quantitative information about patterns in the process. Similarly, by enhancing and further validating both the STELLA and the AS through an extensive expert panel validation process, AVAD will produce two rigorous and technically defensible products that will assist the field in assigning valid and effective accommodations and contribute to improved and enhanced accommodations decision-making practices.

The availability of these tools and accompanying professional development and other documentation on the SDE’s Web site will also promote knowledge about valid accommodations decision-making among educators. In particular, the enhanced ASES *Professional Development Guide* video will provide comprehensive information, guidance, and training to educators on empirically based best practices for determining appropriate accommodations for ELLs and students with disabilities. While AVAD focuses on assessment accommodations, the project deliverables will increase knowledge and awareness of instructional accommodations and strategies to increase access for students with special needs—with the potential to impact practitioners and students well beyond the project period.

AVAD’s focus is to help English for Speakers of Other Languages (ESOL) teachers and Individualized Education Program (IEP) teams make more systematic and empirically based decisions about which accommodations are most valid and effective for individual ELLs and students with disabilities. Similarly, the project will increase access at the item level for these students, especially newly arrived ELLs and/or ELLs with emergent English language proficiency and literacy, by developing computer-based, Access-Enhanced science items.

(iii) Usefulness of AVAD to Other Educational Agencies

Other educational agencies at the local and state level are likely to find the results and deliverables of the AVAD project highly relevant and useful. With the LEP SCASS and the ASES SCASS partnering on these projects, we ensure that 38 states are involved in the AVAD project.

STATE	LEP SCASS	ASES SCASS
Arizona		X
Arkansas		X
Connecticut		X
Delaware		X
Georgia	X	X
Hawaii		X
Indiana	X	
Iowa	X	X

Kansas		X
Kentucky	X	X
Louisiana	X	X
Maryland		X
Michigan		X
Minnesota		X
Mississippi		X
Nebraska	X	X
New Mexico		X
North Carolina		X
Ohio	X	X
Oklahoma		
Oregon		X
Rhode Island		X
South Carolina	X	*
South Dakota		X
Texas	X	X
Utah	X	X
Virginia	X	
Washington		X
West Virginia	X	
Wyoming	X	X
38 states	13	25

*South Carolina is in currently becoming a member of the ASES SCASS.

This broad engagement in developing and refining the tools means that the states will have a sense of ownership in the products and will therefore be more inclined to implement them. Their vital role in the project ensures that they will be aware of the project processes, outcomes, and deliverables.

The enhanced STELLA and AS directly address an area of critical need with which many states have been struggling since the passage of NCLB: the meaningful of inclusion of ELLs and students with disabilities in assessment. With increasingly high stakes, states need such tools as the STELLA and AS to help them increase the validity and accuracy of state test results for students with special needs.

STELLA and AS will help states by providing comprehensive, research-based training materials and easily accessible tools for educators making accommodations decisions.

Similarly, the computer-based access-enhanced (AE) science item prototypes will provide another strategy for removing barriers to access for ELLs and students with disabilities. By building on the results from the AARDL project, AVAD will add to the findings about the validity, comparability, and scalability of access-based items in a computer format. Developing these types of items will yield insights into the feasibility and cost of producing computer-delivered access-based assessments. This will help states either changing from paper- to computer-based state assessments or looking toward doing so.

(iv) AVAD's Use of New or Existing Strategies

The ultimate goal of the AVAD project is to increase the accuracy of assessment results for ELLs and students with disabilities through strategies to add value and rigor to accommodations decision-making as well as to develop innovative computer-based item formats.

AVAD is based in large part on the research and results obtained from conducting several other Enhanced Assessment Instruments grant (EAG) projects in which the SDE has served as lead state and fiscal agent: 1) the Taxonomy for Testing English Language Learners (TTELL) project (a 2003 EAG), and 2) the Achieving Accurate Results for Diverse Learners (AARDL) project (ongoing).

The TTELL project produced the Selection Taxonomy for English Language Learner Accommodations (STELLA), a Web-based decision-making tool that matches individual ELLs with appropriate accommodations. We will employ a MAUT methodology to elicit and validate the structure underlying the STELLA and ELL accommodations decision-making.

Objective 2's work to enhance and validate the Accommodation Station (AS) builds on the work of the AARDL. The existing AS, developed by Gerald Tindal and tested for utility, feasibility, and reliability in several states for the AARDL project, will provide a foundation for the enhanced AS. Specifically, the AVAD will create a decision-making taxonomy (based on the ASES SCASS *Accommodations Manual* and accompanying materials) to be programmed into the existing system.

Through AARDL, the SDE has developed Access-Enhanced items to be included in the 2006 statewide assessment field test; comparability and scalability results for these items, as well as ancillary analyses (available September 2006) will inform the development of the computer prototypes of AE science items. Underlying the AARDL is the Valid Assessment of English Language Learners (VAELL) for which Rebecca Kopriva was principal investigator. Dr. Kopriva is serving as a consultant on AVAD.

Because our focus is on enhancing and refining these existing products so that they may be rolled out and presented to the field, we have included a comprehensive dissemination plan in the project design. Releasing the enhanced STELLA and AS on the SDE's Web site will make these tools more easily accessible for educators to begin using them as soon as possible.

While significant results were obtained and highly useful tools were developed by the TTELL and AARDL projects, we now need to ensure the technical rigor of these tools and make them available in their refined and polished form to a large-scale audience. Further study, expansion, and examination of these tools will allow for more useful, feasible, and technically defensible products.

4.4 Project Design

(i) Conceptual Framework

In addition to the foundations that previous EAG projects provide for this proposal, the conceptual framework of the AVAD project is based on current research regarding the validity of accommodations and other strategies for the reliable assessment of ELLs and students with disabilities.

The Assessing Special Education Students (ASES) SCASS has developed several documents that provide a framework for the enhanced AS and accompanying materials. These resources will serve as the basis of the decision-making taxonomy and professional development video component to be developed by the AVAD project for the AS. The Council of Chief State School Officers (CCSSO)—the parent organization of both ASES SCASS and LEP SCASS—released the *Accommodations Manual: How to Select, Administer, and Evaluate Use of Accommodations for Instruction and Assessment of Students with Disabilities* and an accompanying *Professional Development Guide* (with a coordinating PowerPoint presentation) in August 2005. The manual outlines a five-step process for Individualized Education

Program (IEP) teams and 504-plan committees to use in selecting, administering, and evaluating instructional and assessment accommodations for students with disabilities. The *Professional Development Guide* serves as a companion document for facilitators and trainers to use with the manual. These materials were included as part of the *Tool Kit on Teaching and Assessing Students with Disabilities* recently released by the Office of Special Education and Rehabilitative Services and the Office of Elementary and Secondary Education and posted on the U.S. Department of Education's Web site.

(ii) Quality of Project Design and Procedures

AVAD's four objectives are to

1. validate and enhance the Selection Taxonomy for English Language Learner Accommodations (STELLA) and publish the program on the SDE's Web site
2. create and validate a decision-making taxonomy for the Accommodation Station (AS) based on the *ASES Accommodations Manual* and publish the program on the SDE's Web site
3. develop 20 computer-based prototypes of Access-Enhanced (AE) science items in grade four
4. disseminate results through reports, the SDE's Web site, User and Technical Manuals for STELLA and AS, and the *ASES Professional Development Guide* video, and Web-Ex teleconferences.

Activities to achieve Objective 1: Validate and enhance the Selection Taxonomy for English Language Learner Accommodations (STELLA) and publish the program on the SDE's Web site

The STELLA has already undergone several validation studies, including a cut-score study and a ratings panel study, as part of the TTELL project. AVAD will further validate and refine the program using an approach piloted by the Accommodation Station expert panel for the AARDL project. AVAD will reexamine the decision rules for the STELLA by employing the MAUT methodology used by Barbara Plake and Jim Impara for AARDL.

Approximately 100 student profiles from the TTELL Tri-State Study will be used to develop case studies of individual ELLs; each profile is comprised of the information collected in the three STELLA forms: Records, Parent/Guardian, and Teacher. These profiles will serve as the student background

variables to be taken into account when making accommodations decisions. We will match the allowable accommodations contained in the STELLA to the student case studies or profiles.

Following a similar strategy as the one used for AARDL, Barbara Plake and Jim Impara (consultants for the STELLA portion) will facilitate a training session for LEP SCASS members as an extension of a regularly scheduled meeting. They will outline the MAUT process and distribute case studies. The group will work through 5–10 cases (presented with a series of allowable accommodations), and SCASS members will rate how valid and effective these accommodations are for specific student case studies. Members will receive instructions on how to complete the MAUT process by rating the appropriateness of accommodations for the remaining case studies via an online survey that will collect responses and upload them to a secure server.

AVAD STELLA consultants Plake and Impara will then analyze the results and provide the following summary numbers: means, medians, and standard deviations. The LEP SCASS will be convened a second time, and the consultants will lead the group in reviewing the results, with particular interest paid to those ratings with the most variability, as evidenced by the standard deviation. The SCASS will revisit these cases to determine what might have led to the variability in ratings, and the group will reach consensus on the appropriateness of the accommodation(s) for the cases in question.

Plake and Impara will analyze and summarize the results in a report about the MAUT process. AVAD project staff will compare the findings of the MAUT study to the current decision rules for the STELLA and suggest changes based on the results. The SCASS will then review the revised STELLA decision rules at another meeting. The STELLA programmer will incorporate the algorithmic changes to the enhanced STELLA. To refine the STELLA further, ELL and assessment specialists at the SDE will review and revise the STELLA forms for increased readability and user-friendliness. The LEP SCASS will review the revised forms, and their suggestions will be incorporated into the enhanced STELLA by the STELLA programmer.

A new feature of the enhanced STELLA will be exemplar test items in mathematics for grades 4 (30 items), 8 (40 items), and 12 (40 items). AVAD will use released SC and NAEP items that will be

selected so that they are representative of most states' standards. The STELLA will be programmed so that these items may be administered with or without the following STELLA-recommended accommodations: oral administration and pop-up picture glosses for construct-irrelevant words and/or phrases. We will choose items with as little construct-irrelevant variance as possible to gather more valid interpretations of the accommodations' effectiveness.

Including 30–40 items per grade will enable the STELLA exemplar items to be administered with an equal number of oral administrations and non-oral administrations and/or with and without picture dictionary/glosses. Exemplar test items that may be administered with or without certain types of accommodations will allow teachers and students to determine which recommended accommodations are the most effective and appropriate for individual students.

A measure of student performance for both accommodated and non-accommodated items will be provided in the STELLA output, allowing ELL teachers to assess the validity and effectiveness of STELLA-recommended accommodations. When the STELLA is rolled out in the spring of 2007, these data will be automatically collected and uploaded to the STELLA server. As a result, it will be possible to conduct post hoc analyses and research on accommodations validity. The enhanced STELLA and this additional feature, along with the validated and revised decision rules, will be available on the SDE's Web site to all interested parties. Making STELLA available in the spring of 2007 will allow ESOL teachers throughout South Carolina to use the system prior to testing in 2008.

Activities to achieve Objective 2: Create and validate a decision-making taxonomy for the Accommodation Station (AS) based on the ASES *Accommodations Manual* and publish the program on the SDE's Web site

The current Accommodation Station (AS) system collects information from students and teachers on students' needs, skills, and beneficial accommodation strategies as well as diagnostic information on students' reading and math abilities. It organizes this information so that IEP teams may review students' and teachers' survey responses in a side-by-side format along with student diagnostic measures. Unlike

the STELLA, the AS does not contain a taxonomy or algorithm to analyze the information and provide a summary of recommended accommodations.

Objective 2 of the AVAD project will improve the AS by creating a decision-making structure that will be coded and programmed into the system to provide a more concise and targeted output. In this way, the AS will become an interactive, “smart” system that will collect information from students and teachers, consolidate and analyze that information, and produce a list of recommended accommodations based on the salient background variables of individual students. Gerald Tindal, creator of the AS and AVAD consultant, will provide reviews and guidance throughout the development of the enhanced AS.

The first step in this stage of the project will be to convene a small group of experts to create the forms/questionnaires for the enhanced AS and the decision-making taxonomy. SDE staff and ASES SCASS members who served on the expert panel for the AS portion of the AARDL project will meet on twice to accomplish this task. Dr. Sharon Hall, co-author of the *ASES Accommodations Manual*, will work with Special Education experts from the SDE’s Offices of Assessment and Exceptional Children and AVAD consultant Rebecca Kopriva (creator of the STELLA) to draft the decision-making taxonomy. Materials in the *ASES Accommodations Manual* will serve as the basis for the taxonomy and forms/questionnaires. Gerald Tindal will be present at all ASES SCASS expert panel meetings to participate in the taxonomy development and review process.

The task of the taxonomy team is two-fold. The team will consolidate the manual’s Teacher Rules and Fact Sheets to create (with guidance from Gerald Tindal) the appropriate forms/questionnaires to collect information for the enhanced AS. These forms will be Web-based so that school staff and IEP teams may complete them online and responses may be uploaded immediately and stored in a secure database. The Teacher Tools in the manual will be particularly important in drafting the forms for IEP team members to complete.

For example, “Teacher Tool 1: Access Needs that May Require Accommodations” (from the manual) includes a list of questions for teachers to answer that help identify needed and appropriate types of presentation, response, setting, and timing/scheduling accommodations for students with disabilities.

Questions listed in pages 17 and 18 of the *Professional Development Guide* as well as “Questions to Guide Accommodation Selection” on page 18 of the manual will also serve as the basis for the forms/questionnaires. In addition, STELLA forms and AS surveys will serve as a model for creating the questionnaires. This task will take place during the first meeting of the team.

Secondly, the taxonomy team will create a decision-making tree that matches specific characteristics of students with disabilities to specific combinations of accommodations that are most appropriate for individual students. The ASES manual “Fact Sheet 5: Examples of Accommodations Based on Student Characteristics” already contains the basis of such a decision-making structure.

Specifically, Fact Sheet 5 contains a series of charts including student characteristics, category of accommodations, and accommodations to consider for instruction and large-scale assessment. Taxonomy team members will cull the decision-making structure from the examples in this fact sheet, which include the following student characteristics: blind, low vision/partial sight; deaf/hard of hearing; weak manual dexterity/difficulty with pencil/difficulty typing on standard keyboard; communication disorder; reading disability/difficulty encoding; writing disability/difficulty with spelling; mathematics disability; physical disability; and easily distracted/short attention span. Accompanying the student characteristics are specific accommodations to consider for large-scale assessment. The matching process between the most common types of disabilities and appropriate accommodations is currently in the chart.

Once the taxonomy team has drafted forms/questionnaires and the decision-making tree or flow chart for accommodations for students with specific types of disabilities, the next step will be engaging the entire ASES SCASS as an expert panel to review these materials. AVAD staff will attend an extended ASES meeting to conduct the review process, which will include collecting and documenting feedback on the forms and the taxonomy. ASES members will receive materials prior to the meeting so that they will have time to evaluate them. Based on the comments of the ASES SCASS, the AS project coordinator will oversee the revision of the forms/decision-making structure that will be programmed into the enhanced AS by the AS programmer and placed on the SDE’s Web site. This online program will be reviewed at another extended session of a regularly scheduled ASES meeting.

An additional item of the enhanced AS will be exemplar test items in mathematics at grades 4 (30 items), 8 (40 items), and 12 (40 items). AVAD will use released SC and NAEP items selected to represent most states' standards, and consultant Gerald Tindal will review all items. These items differ from the diagnostic reading comprehension/fluency and math computation items now present in the AS: they measure typical grade-level content standards rather than gross skills in reading or math.

The AS will be programmed so that these items may be administered with or without the following AS-recommended accommodations: oral administration and cues (which will be provided by the online system in the form of highlighting). The inclusion of 30–40 items per grade will enable the AS exemplar items to be administered with an equal number of oral administration and non-oral administration and/or with and without cues. Including exemplar test items that may be administered with or without certain types of accommodations will enable teachers, IEP teams, and students to diagnose which accommodations are the most effective and appropriate for individual students.

The enhanced AS will include a student survey (based on the ASES materials and the student survey in the current AS) to allow students to provide feedback on the utility and helpfulness of the accommodations. This survey will include multiple choice and/or open-ended questions about the efficacy of certain accommodations as well as the student's willingness to use them. Questions will be imbedded in the mathematics items and a short series of summative survey questions after the exemplar items will enable students to reflect on specific accommodations and their effects while using them. In this way, rather than have students take "diagnostic" items to help provide a measure of their reading and math ability, the enhanced AS will allow for a diagnosis of the appropriateness and effectiveness of the recommended accommodations. The ASES SCASS will meet once more to review the completed enhancements to the AS and provide feedback before it is finished and published.

South Carolina will roll out the enhanced AS in the spring of 2007 so that IEP teams throughout the state can use it prior to testing in 2008. Student results on accommodated and non-accommodated exemplar items will be automatically collected and uploaded to the AS server on the SDE's Web site.

This will make it possible to conduct post hoc analyses and research on the efficacy and validity of accommodations for students with disabilities.

Activities to Achieve Objective 3: Develop 20 computer-based prototypes of Access-Enhanced (AE) science items for grade four

Informed by the results of the AARDL comparability/scalability and other analyses of Access-Enhanced (AE) items included on the 2006 PACT assessment in South Carolina, the AVAD project will develop computer-based prototypes of AE science items. Science items were chosen as a focus because of the potential to develop creative, inquiry- and performance-based tasks that will translate effectively to a computer-delivered format. The Computer-Based Access-Enhanced (CAE) science items will be designed to increase access for ELLs who are new arrivals and/or have emergent English language proficiency and literacy. While ELLs, who represent a particularly high need, will be the focus when developing these items, the science CAE items may also be appropriate for students with certain types of disabilities, such as reading/decoding difficulties and communication disorders.

The first step in this process will be to analyze AARDL project results. AVAD staff will examine distractor analyses and classical items statistics on the AARDL science items as a starting point from which to create and conceptualize the CAE items. The computer prototypes will allow for a less linguistically bound format for approaching science. Similar to instructional and laboratory exercises exemplified by the Physics Education Technology (PhET) Project, students will be able to manipulate elements and conduct experiments to show what they know and can do in science (Ayala, Shavelson and Yin, 2002; Solano-Flores and Shavelson, 1997; Rosenquist, Shavelson and Ruiz-Primo, 2000; Wieman and Perkins, 2005; Finkelstein et al., 2005).

Expert staff from the SDE's Offices of Assessment and Curriculum and Standards will create the items. An initial two-day training will be provided onsite at the SDE using the AARDL training manual (developed for the AARDL project) and example CAE items from the Test of Emerging Academic English: Listening and Speaking (TEAELS). The CAE team will work in groups of two or three to draft items representing physical, earth, and life sciences. Drafted items (10 items per group) will be sent to

Rebecca Kopriva for review. Items will be rated (based on a system developed for reviewing AARDL items) on the extent to which they increased access and maintained the construct being measured.

The teams will revise the items again in small groups before coming together as a whole group to review the items. Based on the results of this meeting, additional edits will be made to the items. Items at this stage will be sent to the AVAD graphic designer, and groups will collaborate with the designer to begin sketching the online versions of the item prototypes. Item prototypes will then be placed online. The CAE team will once more review the CAE items and revise as needed, and the edits will be programmed into the items. The CAE items will then be presented to the LEP SCASS for review and commentary at an extended session of a regularly scheduled SCASS meeting. Recommended edits from the SCASS will be recorded and programmed into the prototypes.

Activities to Achieve Objective 4: Disseminate results through reports, the SDE's Web site, User and Technical Manuals for STELLA and AS, the ASES Professional Development Guide video, and Web-Ex teleconferences

The enhanced STELLA and AS will be made available at no charge via the SDE's Web site, www.myschools.com. At the conclusion of the project period, Web-Ex teleconferences to introduce and demonstrate the tools will be held for the LEP and ASES SCASS groups and for all interested parties. For both the enhanced STELLA and AS, we will also develop User and Technical Manuals that include detailed information about the projects, including the bases in research and conceptual frameworks as well as practical information about how to use these tools and technical information intended for both expert and lay audiences. Manuals will also be posted on the SDE's Web site.

Another dissemination piece for the AVAD project will be the ASES *Professional Development Guide* video component. The ASES PowerPoint presentation will serve as the framework for the video slides with the five steps ASES recommends for accommodations decision-making interspersed with video clips/vignettes illustrating the information contained in the slides, *Professional Development Guide*, and manual.

For example, to illustrate the importance of “Standardized Administration and Test Security” as outlined in the PD Guide and manual, video clips will contain examples of both proper and improper accommodations delivery. AVAD staff will collaborate with SC Educational Television (SCETV) to produce the PD Guide Video, with ASES SCASS providing input and reviewing the final product. The video will be disseminated to the SCASS members and streamed on the SDE’s Web site. Finally, dissemination of the AVAD project will also take place through the publication of reports in peer-reviewed journals and presentations at national and regional conferences.

(iii) Replicability of Project Results

The SDE will provide access to all relevant project information and assistance to any stakeholders interested in replicating the study. All documentation, including reports, presentations, manuals, and training materials, will be made available in electronic form upon request. In addition, many of the main project deliverables will be posted on the SDE’s Web site at the conclusion of the project period, thereby facilitating access to information and materials. The Web-based tools and other materials will be constructed so that stakeholders may customize them to fit their own policies and purposes. AVAD will also release all evaluation materials and reports to agencies interested in duplicating a project of this nature. In this way, those conducting similar research based on the AVAD may benefit from lessons learned by the grant collaborative and build more effectively upon AVAD’s contribution.

(iv) Capacity Building

The AVAD project will build capacity for stakeholders at the state and local levels by providing easily accessible tools to guide the accommodations decision-making process. The enhanced STELLA and AS will be posted on the SDE’s Web site and available at no charge. Further, the ASES enhanced *Professional Development Guide* video will also be available via streaming on the SDE’s Web site, providing extensive training on accommodation selection, administration, and evaluation that may be accessed and delivered to educators. The fact that the LEP SCASS and the ASES SCASS are partnering on these projects ensures that 38 states will have invested time and energy in developing and refining the

tools and will therefore be more inclined to implement them. The easy accessibility of the instruments will enable states outside of these consortia to adapt and/or implement them.

Finally, the CAE science item prototypes represent an important advance in delivering access-based items via computer and studying the effectiveness and efficiency of computer delivery. These item prototypes and the accommodations decision-making tools address an area of increasingly high need in the field, and thus are likely to build capacity among stakeholders well beyond the project period.

(v) Basis of Project in Up to Date Knowledge and Practice

The AVAD project has its basis in current research on the validity of accommodations decision-making for ELLs and students with disabilities (Abedi, Courtney and Leon, 2003a; Abedi, Hofstetter and Lord, 2004; Kopriva, 2000; Tindal and Ketterlin-Geller, 2004). Two significant researchers in this field, Rebecca Kopriva and Gerald Tindal, are key project consultants.

A major theme in the current literature is the lack of systematic decision-making about accommodations and the need for more rigorous and empirically based approaches (Tindal and Fuchs, 2000; Thurlow, Elliott and Ysseldyke, 2003; Elliott and Thurlow 2000; Tindal and Ketterlin-Geller, 2004). In addition, research into increasing access for ELLs and students with disabilities via item-writing strategies for the valid, reliable, and accurate assessment of these learners has also informed the project design (Abedi, Courtney and Leon, 2003a; Abedi and Deitel, 2004; Kopriva, 2000; Emmick et al., 2006; Tindal and Ketterlin-Geller, 2004). This, too, is an emerging body of research. While a number of important and useful descriptive studies focusing on inclusive assessment practices exist, rigorous empirical studies are still sparse (Sireci, Scarpati and Li, 2005). Researchers in the field call for more experimental research on the validity of accommodations and other strategies to increase accuracy in testing ELLs and students with disabilities (Abedi, Hofstetter and Lord, 2004; Kopriva, 2000; Solano-Flores and Trumbull, 2003; Tindal and Fuchs, 2000). AVAD will contribute to the body of inclusive assessment strategies and research by addressing the issues raised in the current literature.

(vi) Exceptional Approach

The AVAD project is exceptional in that it meets all four absolute priorities and addresses all three competitive preferences of the Enhanced Assessment Grant competition. South Carolina is highly qualified to serve as lead state on the AVAD project. South Carolina was the first state in the nation to receive NCLB Peer Review approval in 2006. In its *Quality Counts 2006* report, Education Week ranked South Carolina third for raising standards and improving accountability. Thus, we bring the intellectual and experiential resources of an assessment program nationally recognized for excellence to the project.

South Carolina is uniquely positioned to carry out the proposed project, given our prior and current direct engagement with the TTELL and AARDL projects that form the conceptual basis of the AVAD. As lead state on both of these projects, South Carolina has the essential insight and working knowledge to achieve the proposed objectives with maximum efficiency. Based on TTELL and AARDL, we have honed the AVAD methodology to ensure the project's success. For example, South Carolina's comparability/scalability study of AARDL items in grades 3–8 of all four subject areas on the 2006 PACT was the first experimental study of access-based items in conjunction with a statewide assessment of this size and scope. Our existing relationships with the AVAD project consultants have been built on collaboration during the TTELL and AARDL projects, and our proposed continued partnerships reflect a strong, shared belief in the value of these instruments and the intention to refine and distribute them.

Further, the size and scale of the consortia involved in the project make it exceptional. Partnering with a total of 38 states ensures that input from diverse voices and contexts across the nation will inform the project. As a result, deliverables are more likely to be endorsed and implemented by states in and out of the consortia as their needs and concerns are more likely to be addressed in the products developed.

Our approach will enable us to ensure that the AVAD project moves research beyond the realm of theory into practice, where it can most benefit educators and the students it is intended to serve.

(vii) Quality of the Methodology

Like the AARDL project on which it is based, the AVAD project also adheres to standards of scientifically based research outlined by the Appalachian Educational Laboratory (AEL) in *Scientifically*

Based Research: A Planning Tool for Educators (2004). Similarly, AVAD has referred to the U.S. Department of Education’s publication, *Identifying and Implementing Educational Practices Supported by Rigorous Evidence: A User Friendly Guide*, in developing the project design and methodology (2003).

The AVAD is highly relevant and addresses an area of critical need facing educational agencies across the nation: including ELLs and students with disabilities on statewide assessments in such a way that valid, reliable, and accurate results are obtained. The project design is rigorous in that it employs empirical and experimental methodology, as well as qualitative approaches where relevant, to validate the STELLA and AS. For example, a MAUT methodology that yields quantitative data is employed to validate the STELLA.

The size and qualifications of the expert panel used to validate and endorse these tools contributes to the rigor of these studies. The project design is systematic, including a series of carefully planned steps based on methodologies employed in the TTELL, VAELL, and AARDL projects. As the AVAD project refines and employs these strategies, the systematic nature of the design will also facilitate the replication of similar studies that will yield the same results. By contracting with a highly skilled external evaluator with extensive experience in educational research, AVAD ensures an objective and critical report on the quality of the project methodology and analysis of results

4.5 Management Plan

(i) Management Timeline (Key project activities are listed by AVAD objective)

Aug–Sep 06	<p>1-4: Evaluate/adjust design and methodology (Evaluator, SDE); Kick-off meeting/Web-Ex (SDE, ASES, LEP SCASS, Kopriva, Tindal)</p> <p>2: AS taxonomy team meeting: create forms (SDE, Kopriva, ASES SCASS, Evaluator)</p>
Oct 06	<p>2: ASES expert panel meeting: review revised AS forms (SDE, ASES SCASS, Tindal, Kopriva)</p> <p>2: AS taxonomy team meeting: draft decision-making structure (SDE, Kopriva, ASES SCASS, Evaluator)</p> <p>3: Science CAE item developers meeting: training and item development (STELLA Coordinator, Kopriva, SDE, Evaluator)</p>
Nov 06	<p>1: LEP SCASS expert panel meeting: MAUT (SDE, LEP SCASS, Kopriva, Plake and</p>

	<p>Impara)</p> <p>3: Develop Science CAE items</p>
Dec 06– Jan 07	<p>1: Online completion of MAUT surveys and summary report of results (LEP SCASS, Barbara Plake and Jim Impara)</p> <p>2: ASES expert panel meeting: review decision-making structure for AS (SDE, ASES SCASS, Tindal, Kopriva)</p> <p>3: Science CAE item developers meeting: begin revising CAE items (SDE science team)</p>
Feb 07	<p>1: LEP SCASS expert panel meeting: results from MAUT (SDE, LEP SCASS, Barbara Plake and Jim Impara, Rebecca Kopriva)</p> <p>2: Program forms and decision structure into AS and online versions of science CAE items (AS and STELLA programmers, SDE); Meeting to revise science CAE items</p>
Mar–Apr 07	<p>1: Review and revise STELLA Data Collection forms (SDE, Kopriva)</p> <p>2: Review and revise AS forms and decision structure (SDE, Tindal, Kopriva)</p> <p>3: Program CAE items and revised decision rules into STELLA (STELLA programmer)</p>
May–Jun 07	<p>1, 2: Program revised STELLA Data Collection forms and revised AS forms and decision-making structure (STELLA and AS programmers)</p> <p>1, 3: LEP expert panel meeting: Review enhanced STELLA and CAE science items (LEP SCASS, Kopriva, Evaluator)</p> <p>2, 4: ASES expert panel meeting: Review enhanced AS online and plan PD program (SDE, ASES SCASS, Tindal, Evaluator)</p>
Jul 07	<p>1, 2: Program final changes to STELLA and AS based on LEP and ASES SCASS meetings (STELLA and AS programmers)</p> <p>3: Program edits to CAE items from LEP SCASS comments (STELLA programmer)</p>
Aug 07	<p>1, 2, 4: STELLA and AS published on SDE Web site (STELLA and AS programmers)</p> <p>4: Plan Web-ex for enhanced PD guide video component (AS coordinator, SDE, selected ASES members, SCETV)</p>
Sept 07	<p>4: Tape enhanced PD guide video component (AS coordinator, SDE, SCETV)</p>
Oct–Nov 07	<p>4: Web-ex review of enhanced PD guide video component (AS coordinator, SDE, selected ASES members, SCETV); Edit enhanced PD guide video component (AS coordinator, SDE, selected ASES members, SCETV)</p>
Dec 07– Jan 08	<p>1-4: Summative evaluation (Evaluator)</p> <p>2, 4: Stream Enhanced PD guide video component on SDE Web site (AS coordinator)</p> <p>4: Final reporting (AVAD coordinators)</p>

(ii) Time Commitments

Given the multifaceted nature of AVAD and the time constraints of the project, two project coordinators are needed to ensure the implementation and progress of AVAD. They will work full time (37.5 hours each week) for 18 months to meet these goals.

Previous experience with TTELL, AARDL, TEAELS, and the TILSA SCASS (Web alignment tool) has made us aware of the pace and complexity of computer programming for projects of this type. Project complexity and goal orientation make it imperative to employ two full-time (37.5 hours each week) computer programmers at the SDE to perform all the technical aspects of the AVAD project.

The Principal Investigator (Dr. Theresa Siskind) will dedicate at least 9 hours per week (in-kind) to consult with the project coordinators, staff, and partners regarding project activities and progress. Therese Carr, Courtney Foster, and Suzanne Swaffield will each spend 3.75 hours per week on the AVAD, and additional SDE staff members (who work with students with disabilities, ELLs, computer-based testing, and item development) will commit varying amounts of time depending the objectives.

AVAD consultants will spend the following amount of time per week on the project: Rebecca Kopriva (10 hours), Gerald Tindal (5 hours), and Barbara Plake and Jim Impara (2 hours). Phoebe Winter, project evaluator, will allot approximately 2 hours per week on AVAD evaluation activities.

4.6 Project Personnel

Encouraging Application from Underrepresented and Minority Candidates

The SDE will strongly encourage applications from individuals belonging to groups that are often underrepresented because of race, national origin, gender, age, or disability. The objectives of this project make it especially appropriate and beneficial to hire an employee with personal experience in second language acquisition and/or living with a disability. The SDE will circulate the position description and job advertisement widely (particularly in target professional journals and among professional organizations) to attract qualified, interested applicants from traditionally underrepresented groups.

(i) Qualifications of Project Coordinators and Principal Investigator

To ensure the timely completion of all AVAD objectives, the SDE will hire two full-time project coordinators whose primary responsibility will be to oversee project activities, including communication with project partners. The STELLA Project Coordinator will focus on the STELLA objectives and project activities, and the AS Project Coordinator will focus on the AS objectives, project activities, and the *Professional Development Guide* video. Given the short grant period, two project coordinators will ensure the successful completion of all project objectives. The project coordinators will work closely with the AVAD computer programmers and the principal investigator.

Preferred qualifications for project coordinators include credentials in Research Design and/or Measurement as well as additional study or experience working with ELLs and/or students with disabilities. This experience could come from graduate-level study, teaching such students, working with their teachers, or designing and implementing curricula, research projects, and/or policies regarding the education of such students. If the candidate holds a doctorate in Research Design and/or Measurement, a minimum of two years of professional experience working with constituents of one or the other (or both) of these student populations will also be required. With a master's degree, the applicant must have a minimum of four years of professional experience. The candidate must possess strong research design and measurement skills as well as excellent communication and organizational skills.

Dr. Theresa Siskind, Director of the Office of Assessment at the SDE, will serve as the Principal Investigator. Dr. Siskind is currently responsible for selecting, developing, and administering the K–12 testing programs in South Carolina. She holds a doctorate in Educational Research from the University of South Carolina and has extensive experience in large-scale assessment at both the state and district levels. Under her leadership, the state has served as a lead/partner state in seven Enhanced Assessment Instrument Grants awarded in the past two cycles: TTELL, TILSA (Web Alignment Tool), TEAELS, ELDA, AARDL, Alternate Assessment, and New Hampshire (Technical Documentation). Dr. Siskind will lead the AVAD group, oversee the project directors, all activities, and key personnel..

(ii) Qualifications of Key Project Personnel

Therese Carr, Project Coordinator for the AARDL grant and NAEP State Coordinator in the Office of Assessment, will temporarily direct the project until the coordinators are hired. She will assist and supervise the coordinators, programmers, and graduate assistants, and she will participate in the STELLA component activities. She coordinated the Office of Assessment's role in the TTELL grant and served as a liaison for other Enhanced Assessment Instrument Grants, including the TEAELS and the ELDA. With a master's degree in TESOL from the University of Kentucky, Ms. Carr has taught ESOL in Spain, Kentucky, and South Carolina. She is currently enrolled in the doctoral program in Language and Literacy at the University of South Carolina.

Courtney Foster will also serve as an advisor and member of the development team for the Accommodation Station component of the AVAD. An Education Associate in the Office of Assessment, she reviews test items for all South Carolina testing programs and recommends strategies to make them appropriate and accessible for students with disabilities. She holds a master's degree in Research and Measurement and is currently ABD in her doctoral program in Educational Psychology and Research.

Suzanne Swaffield will serve as an advisor and member of the development team for the AS component. She is currently the coordinator of the Special Education Unit in the Office of Assessment at the SDE, the unit that develops, administers, and scores alternate assessments and coordinating activities relating to students with disabilities in all statewide assessments. She coordinated the development of alternate assessments in South Carolina and participated in Alternate Assessment Collaborative enhanced assessment grant activities at the SDE from 2003 to 2005, and served as the Consultant for Programs for Students who are Blind/Visually Impaired at the SDE from 1988–2001.

(iii) Qualifications of Project Consultants/Subcontractors

Because reprogramming the STELLA and AS and housing them on the SDE's Web site are major project objectives, the SDE will hire two full-time computer programmers to develop and support the vast technological component of AVAD. One programmer will focus on STELLA programming and CAE development, and the other will focus on the AS programming and *Professional Development Guide*

video. The computer programmers must have a bachelor's degree or higher in computer science and/or a master's degree in educational technology or a related field and at least five years experience designing and developing Web-based educational software programs. Preference will be given to candidates with a background in education and/or educational technology. Additional preferred qualifications include experience with Coldfusion, SQL servers, and Dreamweaver. Excellent communication skills, including the ability to discuss complex programming issues with an educated but inexperienced audience, are essential.

James C. Impara, a partner in Psychometric Inquiries, will facilitate the Multi-Attribute Utility Theory (MAUT) process with the LEP SCASS for the STELLA development. He received his Ph.D. from Florida State University and recently retired from the Buros Institute for Assessment Consultation and Outreach (which he previously directed), and is a founder and a Senior Director of Test Security at Caveon, LLC, (a company specializing in test security). Dr. Impara has directed statewide educational testing programs in Florida and Oregon, worked as a faculty member at Virginia Tech and the University of Nebraska, and advised educational and credentialing organizations on testing and evaluation matters.

Rebecca Kopriva, consultant, will consult on the STELLA and CAE science development components of the AVAD project. She is a research professor at Michigan State University and was the former director and research professor for the Center of Assessment Validity and Evaluation (CSAVE) at the University of Maryland, College Park. She holds a doctorate in Applied Statistics from the University of Northern Colorado. Dr. Kopriva has served as an associate professor in the School of Education and Human Development at California State University-Fresno, the director of the Delaware's state assessment system, and as a consultant to the U.S. Department of Education. Dr. Kopriva has served as principal investigator on 15 grant projects. Her publications include articles, books, monographs, and reports on the valid assessment of ELLs, students with disabilities, and other at-risk students.

Barbara S. Plake, former Director of the Buros Center for Testing at the University of Nebraska-Lincoln, will facilitate the Multi-Attribute Utility Theory (MAUT) process with the LEP SCASS for the STELLA development. With a doctorate in psychometrics from the University of Iowa, Dr. Plake has published over 100 research articles, and she has received the Association of Test Publisher's Career

Achievement Award (2005) and the Career Award from the National Council on Measurement in Education (2006). Through her consulting practice, Plake and Impara Psychometric Inquiries, she has worked with the Association for Investment Management and Research (AIMR, now CFA Institute), the American Association of Poison Control Specialists, and the State of Nebraska's licensing programs in nursing and well water management. She consults with the American Institute of Certified Public Accountants, The College Board, and many states on assessment programs.

Gerald Tindal will serve as advisor and consultant in the development of the AS for AVAD. Currently the Castle-McIntosh-Knight Endowed Professor of Education at the University of Oregon, Dr. Tindal also serves as the Area Head of Educational Leadership as well as Teacher Education and the Director of Behavioral Research and Teaching (BRT), a research center housing federal and state grants and contracts. His research focuses on integrating students with disabilities in general education classrooms using curriculum-based measurement to develop optimal instructional programs. He has authored many articles, chapters, and books on curriculum-based measurement and large-scale testing.

Phoebe Winter will serve as the AVAD project external evaluator. She is an independent consultant in large-scale educational measurement and assessment policy. She earned a doctorate in Measurement, Evaluation, and Applied Statistics (Psychology) from Columbia University. Dr. Winter has served as project director for numerous research projects for the Council of Chief State School Officers and as a psychometrician for Virginia and South Carolina. She has also worked closely with the Title I Unit of the U.S. Department of Education. Dr. Winter's work involves the technical and policy aspects of large-scale assessment and accountability programs and focuses on increasing their validity.

4.7 Adequacy of Resources

(i) Adequacy of Support

As the lead state on two prior EAG projects, TTELL and AARDL, South Carolina is the only state with the experience and expertise to conduct and coordinate the AVAD project. South Carolina was the first state in the nation to receive NCLB Peer Review approval, and we were one of seven states to receive an "A" rating from the Thomas B. Fordham Foundation for our science standards (on which the

AVAD CAE science items will be based) and received the fourth highest rating overall (Gross, et al., 2005). We were ranked third in the nation for raising standards and improving accountability (Quality Counts, 2006).

Several key staff, including Therese Carr, Courtney Foster, and Suzanne Swaffield, who have coordinated and participated in the TTELL and AARDL projects will devote in-kind time to the AVAD. However, their current roles and responsibilities prevent them from committing more than 10% of their time to the project. Teri Siskind, Principal Investigator, will commit 25% of her time to AVAD. To ensure that all project objectives are completed appropriately and within the brief project period, AVAD proposes hiring additional staff (four full-time employees and two graduate assistants) whose sole responsibility will be to administer and coordinate AVAD project activities. Similarly, because the AS and STELLA project coordinators will need to be present at often overlapping ASES and LEP SCASS meetings and to coordinate complex and varied activities, hiring two project coordinators will ensure the timely and thorough completion of all project activities.

Since space is severely limited at the SDE, the AVAD budget allocates funds to rent office space near the main SDE office building to accommodate AVAD staff. The budget allocates funds to outfit this rental office space with the appropriate furniture, computer equipment, technology, and office equipment. For example, project staff will have fax machines, photocopiers, conference telephones, and other office equipment that will facilitate communication with project partners.

The AVAD project coordinators and programmers will have their own offices, with space for the AVAD graduate assistants nearby. All AVAD offices will be in the same general space, thus facilitating close collaboration and communication among the project team. Support and technical staff in the Office of Assessment in the main SDE building will also provide assistance to the project as needed.

(ii) Relevance and Demonstrated Commitment of Each Partner

The South Carolina Department of Education will partner with the LEP SCASS and the ASES SCASS on the AVAD project. Doing so will allow AVAD to collaborate with a total of 38 states whose commitment to making assessment more inclusive, equitable, and accurate for ELLs and students with

disabilities is already demonstrated by their membership in the SCASS groups. Both groups have demonstrated their commitment to the project in the letters of commitment included in the appendices.

AVAD project consultants have also confirmed their commitment to the AVAD project, and their letters are also in the appendices. These consultants include Rebecca Kopriva (Michigan State University), creator of the STELLA, and Gerald Tindal (University of Oregon), creator of the AS. Barbara Plake and Jim Impara of Psychometric Inquiries will facilitate the MAUT methodology they piloted with the AS expert panel for AARDL. Phoebe Winter, the external evaluator, is currently the measurement consultant to the LEP SCASS.

(iii) Adequacy of Budget

The AVAD budget was developed based on our past experience with two other EAG projects. Conversations with other EAG fiscal agents, project consultants, and contractors have also informed the proposed AVAD budget. In addition, we have communicated directly with contractors and consultants to ensure that the proposed costs will adequately cover their participation in the AVAD project.

All cost estimates for office and computer equipment are based on current costs from vendors under state contract. Purchasing equipment and supplies from vendors on the state contract enables us to receive substantial discounts (up to 50% in some cases) on materials, installation and delivery charges. South Carolina will use state surplus office furniture to outfit the rented office space to reduce costs. All costs in the proposed budget reflect the current cost of living in South Carolina. The AVAD principal investigator will address any challenges that may arise regarding the budget.

Because oversight of the AVAD project will require more than 40 hours per week, the AVAD budget includes costs for the two full-time employees to act as project coordinators for the AS and STELLA portions of the project, respectively. The project coordinators' projected salaries and fringe benefits are based on salaries of past and other EAG project coordinators. Given the large number of partner states involved in the consortium and the multiple objectives of the project, the AVAD budget also provides for the employment of two graduate assistants to support the project coordinators. Hiring graduate assistants rather than support staff allows the project to reduce costs, as graduate assistant

salaries are lower than typical administrative assistants and only limited fringe benefits apply. Hiring graduate assistants in educational research, special education, and/or linguistics will enable the SDE to further their practical education and potentially bring current research knowledge into the project.

The AVAD budget provides funds to hire two full-time computer programmers because all four grant objectives entail extensive computer programming and the eventual publication of the enhanced STELLA and AS on the SDE's Web site. Based on past involvement in other EAG projects in which Web-based technology was integral, we believe the presence of two onsite, full-time programmers with whom regular and in-person communication is possible is critical to the project's success.

To allow the SDE to have the capacity to revise, reprogram, and host the enhanced STELLA and AS on the SDE's Web site, the budget includes funds intended for the purchase of essential computer and technological equipment. For example, two additional servers are essential to the ability of AVAD to disseminate the project tools, as server space at the SDE is limited. Certain software and other programming tools are necessary for the successful and efficient completion of the project objectives.

The proposed budget also includes funds to cover the cost of meeting with the LEP and ASES SCASS groups to undertake AVAD project activities. To make AVAD meetings as time- and cost-effective as possible, AVAD plans to add additional day(s) to already scheduled SCASS meetings. In this way, project funds will be conserved and travel of members of the expert panels will be reduced. The AVAD budget allots funds for the travel of AVAD staff at the SDE to these meetings. Estimates for all meeting costs are based on past and current experience with EAG meetings of consortia of partner states, as well as cost estimates provided by SCASS project coordinators.

The AVAD budget also designates funds to cover the cost of several subcontractors and consultants. To minimize cost and reduce the "learning curve," the SDE has partnered with individuals and agencies with whom we have existing relationships. The contractors all have prior experience working with the SDE on the AARDL and TTELL projects. Such preexisting relationships have the potential to facilitate and expedite AVAD's achievement of the four project objectives. Contractual costs reflect this experience as well as conversations with SDE staff to ensure that the funds allocated are

appropriate and adequate. The SDE has contacted various subcontractors to vet and compare cost estimates and ensure they are reasonable and sufficient.

Finally, the budget includes costs for dissemination activities, including the production of a professional development video at SCETV as well as participation in regional and national conferences to inform other states about the project and the instruments. Such activities are a critical aspect of the project: they build capacity in other state assessment programs and enable program replicability.

4.8 Evaluation Plan

(i) Thoroughness, Feasibility, and Appropriateness of Evaluation Methods

The AVAD project has developed a comprehensive evaluation plan that includes both formative and summative evaluation methods as well as formal and informal evaluation. The evaluation will assess the overall quality and feasibility of the project design and results and the progress toward achieving project goals and objectives. Dr. Phoebe Winter, the external evaluator, has extensive experience in psychometrics, educational research, and state assessment systems. She is the current measurement consultant to the LEP SCASS project, and has consulted on both the TTELL and the AARDL projects.

In addition to Dr. Winter's involvement, South Carolina will foster ongoing evaluation of the project through communication with project partners through meetings, Web-exes, teleconferences, and e-mails. As in the TTELL and AARDL projects, AVAD will submit quarterly progress reports to the EAG program officer as well as the project partners. We will produce a final report regarding progress, achievement, and financial information to the U.S. Department of Education.

To ensure a complete and thorough evaluation, Dr. Winter will conduct formative evaluation activities both at the outset and periodically throughout the grant project. Dr. Winter will begin the evaluation by conducting a formative review of the proposed project design and methodology. This formative evaluation will take place immediately after the grant award is announced. Dr. Winter's formative report will be shared with the AVAD consortia, and the project design and methodology will be refined based on her suggestions.

Throughout the AVAD project, Dr. Winter will use a variety of methods including observation, surveys, focus groups, interviews, and case studies, to collect information for the evaluation. These methods allow for the efficient and effective collection of data, and can be tailored so that they are as time and cost-efficient as possible. For example, phone interviews may be conducted rather than in-person interviews to conserve project funds and time). The informal evaluation methods, including reports, phone calls, e-mails, and Web-Exes, are especially feasible as they are inexpensive and convenient for all.

Dr. Winter will evaluate the effectiveness of Multi-Attribute Utility Theory (MAUT) to provide an empirical basis to accommodations decision-making; she will also evaluate the validity of the MAUT study results. In addition, Dr. Winter will evaluate the validity of the decision-making structure based on the ASES materials to be programmed into the enhanced AS. Finally, by using qualitative methods to collect data from the AVAD consortia, Dr. Winter will evaluate the validity, rigor, and utility of the decision-making tools to be published on the SDE's Web site.

Dr. Winter will also assess the feasibility of developing computer-based items using existing resources at a state agency. In addition, she will rate the degree to which the twenty items developed a) maintain the construct, and b) reduce barriers to access.

Finally, Dr. Winter will produce a comprehensive, summative evaluation focusing on the overall quality, feasibility, and appropriateness of the research design and methodologies. To determine whether project goals and objectives were met, Dr. Winter will use meta-evaluation. In this way, she will provide an impartial evaluation of how sound, rigorous, and appropriate the AVAD methods of data collection and analysis were. This information will be useful and beneficial not only to members of the AVAD consortia, but also to other agencies interested in replicating the proposed study.

(ii) Use of Objective Performance Measures

Objective 1: Validate and enhance the Selection Taxonomy for English Language Learner Accommodations (STELLA) and publish the program on the SDE's Web site

Data Collection: Statistical analyses, observations, surveys, focus groups, interviews, case study

Performance Measures

- Summary statistics (means, medians, and standard deviations) from the MAUT process will be used to determine the level of endorsement and validation of specific accommodations matched to individual students
- Creation and production of a STELLA Web site on the SDE's Web site
- Effectiveness of MAUT training/process as measured by qualitative evaluation
- Utility and validity of enhanced STELLA as measured by evaluation and general consensus

Objective 2: Create and validate a decision-making taxonomy for the Accommodation Station (AS)

based on the ASES *Accommodations Manual* and publish the program on the SDE's Web site

Data Collected: Observations, surveys, focus groups, interviews, case study

Performance Measures

- Creation and production of an AS Web site on the SDE's Web site available for members both within and outside the consortium
- Validation of decision-making structure as measured by ratings by expert panel
- Utility and validity of enhanced AS as measured by evaluation and general consensus among consortia states

Objective 3: Develop 20 computer-based prototypes of Access-Enhanced science items in grade four

Data Collected: Ratings, observations, surveys, focus groups, interviews, case study

Performance Measures

- Effectiveness of training as measured by evaluation
- Production of 20 computer-based prototypes of Access-Enhanced (AE) science items in grade four
- Ratings of extent to which items a) maintain the construct, and b) reduce barriers to access

Objective 4: Disseminate results through reports, the SDE's Web site, User and Technical Manuals for STELLA and AS, the ASES *Professional Development Guide* video, and Web-Ex teleconferences

Performance Measures

- User Manuals for enhanced STELLA and AS

- A minimum of 5 AVAD papers or reports published in the year following the project
- Enhanced STELLA and AS on SDE's Web site
- Professional development training materials and video.

(iii) Extent to Which Evaluation Provides Guidance on Effective Strategies

Evaluating the AVAD project will provide specific guidance and strategies to other state agencies that might be interested in undertaking similar initiatives. The evaluation will provide detailed and practical information on how to add value to the accommodations decision-making process by using AVAD-developed tools, including the STELLA, AS, and accompanying professional development materials. The evaluation will identify the strengths and weaknesses of these tools so that other state agencies may build or improve upon AVAD efforts.

The AVAD evaluation will also provide guidance on how state agencies might use the STELLA and AS to facilitate ongoing data collection and monitoring of accommodations use. In addition, the evaluation will provide specific and detailed information and recommendations on the methodology and feasibility of developing access-based, computer-delivered science items intended to increase access for ELLs. The evaluation reports will include explicit suggestions on how other interested agencies might replicate, adapt, or customize the AVAD tools and methodologies.

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