

Educational Credit for Exceptional Needs Children Hand-Scored Assessment Data Report

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Overview

The South Carolina Education Oversight Committee (EOC), working with the South Carolina Revenue and Fiscal Affairs (RFA) Office, through a secure portal, collected individual student assessment data from schools that participated in the Educational Credit for Exceptional Needs Children (ECENC) program in the 2017-18 school year. These student assessments data must be used to provide program level reports to determine whether students participating in the program have experienced measurable improvement. For schools that had least 51% of the total school enrollment receiving grants from Exceptional SC in the 2017-18 school year, the EOC was required by law to report school-level assessment results for these students. ECENC schools were asked to upload test vendor files on a publisher provided score report. Consequently, test scores obtained from hand-scoring of assessments by school officials or by the classroom teacher were not accepted. Camperdown Academy and Trident Academy did not provide student scores for national achievement or aptitude tests reporting that all their test results were hand-scored. Fitts Educational Consulting was contracted to acquire detailed test administration and scoring procedures to determine how hand-scored end-of year assessment data may be used for future ECENC evaluations.

The following report outlines the English Language Art and Mathematic assessment year-end test administration and score validation procedures implemented by Camperdown Academy and Trident Academy.

School Background

Camperdown Academy (Camperdown), founded in 1986, serves students with learning disabilities in Greenville, SC and surrounding areas. It is accredited by the South Carolina Independent Schools Association, the Academy of Orton-Gillingham Practitioners and Educators and the International Dyslexia Association. The school is identified as one of the nation's top 50 Best Private Schools for Special Needs and recognized as the National Association for Special Education Teachers School of Excellence for 2019-2020 school year. The school emphasizes the use of research based multisensory instructional strategies across a discipline specific curriculum. The Orton-Gillingham Approach (OGA), a diagnostic and individualized instructional approach geared toward students diagnosed with a language-based learning difference such as dyslexia, dysgraphia, or dyscalculia, is implemented across all levels/grades. OGA is incorporated across curriculum and throughout the school day. Students in the primary level (1st-2nd) receive instruction in reading, oral language, listening comprehension, written expression, phonological awareness, math, science, and social studies. The lower and middle

level students (3rd -8th) receive instruction in math, science, English Language Art, social studies, music/art/and/or drama, as well as, participate in daily tutorial (1:1 or 2:1) sessions. Camperdown maintains on staff approximately 25 trained Orton-Gillingham tutors who focus on the individual student's need with decoding, spelling, handwriting, phonological awareness, reading, and/or written expression. In addition to addressing language deficits, the school offers daily Math Labs for the Lower Level (3rd-5th) students. These labs emphasize building math fluency and solidifying basic facts. Camperdown accepts students in grades 1-8 and report a 2017-2018 student enrollment of approximately 135 students, 132 of which are part of the ECENC program.

Trident Academy (Trident), founded in 1972, serves students with learning disabilities in Mount Pleasant, South Carolina and surrounding areas. It is accredited by the Southern Association of Independent Schools and the Academy of Orton-Gillingham Practitioners and Educators. It is also an active member of Palmetto Association of Independent Schools, South Carolina Independent Schools Association and National Association of Independent Schools. Trident focuses on addressing the needs of students with language processing difficulties (e.g. reading or written expression) incorporating OGA across a traditional curriculum aiming to provide a structured, diagnostic and prescriptive instructional environment. The school utilizes various research based multi-sensory techniques and incorporates assistive technology throughout the day. Trident employs an Educational Technology (EdTech) Specialist who is also a Google for Education Certified Trainer. The EdTech Specialist serves students, teachers and parents by providing training and assistance on various technology learning tools and assistive devices (e.g. tactile computer screens, text-to-speech technology, specialized reading software, etc.). Students in the Lower and Middle Schools (K-8th) receive instruction in Language Arts, reading, writing and grammar, vocabulary, math, science and social studies. The Upper School (9th-12th) curriculum is guided by the Academy of Orton-Gillingham Practitioners and Educators and the South Carolina State Standards. Students in the Upper School receive Project Based Learning in conjunction with OGA earning the 24 Carnegie Units required for a state high school diploma. Trident also holds Language Enrichment and Development (LEAD) classes for all struggling students regardless of level. They offer daily LEAD classes to address individual needs in decoding, phonemic awareness, fluency, spelling, reading and/or written expression. Trident Academy accepts students Kindergarten (K) -12th grade and reports a 2017-18 student enrollment of approximately 75 students, 53 of which are part of the ECENC program.

Methods & Limitations

The methods utilized in this evaluation encompassed three phases. Phase I involved gathering preliminary information on each school to include: student population, location, purpose, instructional methods/philosophy, and previous assessment information reported to the SC EOC. Phase II involved onsite visits and data collection through administrative/staff interview sessions, school observations, and acquisition of assessment protocols, training agendas, and/or student assessment reports. Phase III consisted of review and analysis of all data collected to include compiled assessment documentation, procedural information obtained through staff interview/meeting and/or direct school observations. Once analyzed, the findings were summarized with accompanying recommendations.

Limitations to the evaluation process: 1) the evaluator was unable to observe the actual testing and/or scoring process at either school, all information was obtained after testing was complete; and, 2) the evaluator did not have an opportunity to speak directly to the staff member overseeing school math assessments – this team member, from both schools (i.e. Trident Academy and Camperdown Academy), was not available due to health concerns.

Assessments

Camperdown and Trident administer a combination of formal/standardized and informal assessments to determine the individual student level of functioning and subsequent progress. Tests are administered annually within set time periods in the fall and spring. Camperdown and Trident administer testing accommodations according to student need (e.g. individual administration, extended time, and alternate response). Allowable accommodations do not alter what the test measures in any significant way and can involve a change in format, response, setting, timing, or scheduling. The next section yields a description of the formal assessments, staff preparation, test administration, scoring and score validation procedures employed by each school.

Formal Assessments

Camperdown and Trident administer formal assessments twice yearly to determine student progress in English Language Arts (ELA) and Mathematics (Math). Both schools use the same ELA assessments - the Wide Range Achievement Test 5th Edition (WRAT5) and Gates-MacGinitie Reading Tests (GMRT). The WRAT5 ELA tests are untimed and available in levels K-12+. It measures single word reading, spelling and sentence comprehension. Available in levels pre-reader to

grade 12, the GMRT is a timed assessment allotting 20 minutes for the vocabulary and 35 minutes for the reading comprehension tests. Similarly, Camperdown and Trident administer the WRAT5 Math Computation test which allots 15 minutes to complete. This test measures the student's ability to count, identify numbers, and calculate written math problems. Problems presented include arithmetic, algebra, geometry, and advanced operations. Unique to Camperdown, the Group Mathematics Assessments and Diagnostic Evaluation (GMADE) offers additional data measuring student understanding of math symbols and language, skills in basic operations and computations, and level of word problems and math reasoning ability. The GMADE present problems that address time, money, sequence, measurement, algebra and other concepts. Available in levels K-12th grade, Camperdown administers this untimed group assessment only in the spring.

Camperdown Academy

Staff Preparation

The Camperdown teacher and tutor staff members receive training on formal assessment administration and scoring twice yearly. An in-depth training takes place each year in August for WRAT5 administration and again in September for the GMRT. During these training sessions, staff receive instruction on test security, administration, scoring and scoring validity measures. Participants are provided testing manuals along with instruction on test preparation, administration and scoring methods. Information shared during training is placed in notebooks/folders and serves as a resource during test administration and scoring. In addition to the initial training, any Math teacher unfamiliar with GMADE and/or WRAT5 Math administration and/or scoring procedures, receive hands-on training. This involves direct observation of an experienced staff member (i.e. Math Department Head) administering the assessment, the new teacher scoring the assessment observed, and culminating with the Math Department Head checking the scores. Any personnel hired after the fall training and required to administer formal assessments receive one-on-one training on testing procedures and staff expectations. A second staff training session occurs approximately 2 weeks prior to spring testing. The spring training serves as a review of testing administration and scoring procedures defined during the fall sessions.

Test Administration

Camperdown administers two formal ELA assessments twice yearly – fall and spring, The WRAT5 is administered in late August as part of the intake battery of assessments. The school administers the GMRT in late September, after students have been placed with a tutor. (*Note: Tutors administer this test with students they*

serve during the school year). Alternate WRAT5 and GMRT test forms are utilized in the fall and spring to measure student growth over time with the fall assessment serving as the student baseline for the school year. Due to the language learning difficulties of their student population, the school chose to implement setting accommodations of individual and/or small group testing for portions or all of the GMRT and/or WRAT5. For example, tutors administer the reading assessments at student-tutor ratios of 1:1 or 2:1.

Camperdown administers two formal Math assessments. The WRAT5 Math Computation is administered in the fall and spring. The GMADE is administered once annually during the spring. Alternate test forms are utilized in the fall and spring to measure student growth over time with the fall assessment serving as the student baseline for the school year. The WRAT5 and GMADE Math assessments are administered by Math teachers in a group setting with the exception of the younger students. Math assessments for younger students take place in the Math Fluency rooms.

Prior to testing, tutors and teachers review the testing manual and administration procedures, scoring and general considerations located in the testing notebook received during the fall training. Math teachers may consult with the Math Department Chair for questions or concerns as needed. Student answers are recorded in the Response Booklet that coincides with the test form administered. In light of the students' language learning difficulties, the GMADE assessment is administered orally. Camperdown chose to hand score all assessments using GMRT, GMADE and WRAT5 test forms denoted by developers as "Hand-Scorable". Due to the high number of students with dysgraphia, poor hand coordination, poor fine motor skills, and Attention Deficit Hyperactivity Disorder, in conjunction with individual and small group testing, the school elected to incorporate the same response accommodation. All students mark their answers directly in the test booklets. Tutors/Math teachers hand score the response booklets.

Scoring

Once the tests are completed, staff members utilize the corresponding test manual, tables and/or appendices, and coordinating test form and level Booklet Scoring Key to obtain the raw score or number of correct answers per assessment. The GMADE, GMRT and WRAT 5 manuals provide tables for converting this data into the Extended Scaled Score (ESS), Grade Equivalent (GE), Growth Scale Value (GSV), Percentile Rank (PR), Normal Curve Equivalent (NCE), and Stanine (S) scores. Scoring variances occur when a student was given an extended time

accommodation on a timed assessment. This produces two raw scores- timed and untimed, for that section and for the total score. Dependent upon a student's level of functioning on the GMADE and/or GMRT they may be assessed on a level different from the student's actual grade or "out-of-level". For example, a student in the 5th grade experiencing reading difficulty may be assessed with a level 4 form which is developed for students in the 4th grade. When this occurs the phrase "out-of-level" is written on the back of the student's test booklet. After acquiring the student's raw score, the NCE, PR, and S scores are determined using the Manual for Scoring and Interpretation and Out-of-Level-Norms booklet corresponding with the GMADE/GMRT test level taken. Note: Lexile reading scores may be gathered from the Lexile Conversions Booklet using the student GMRT comprehension raw score.

Score Validation

Camperdown score validation procedures include a Second Scoring process. Once the teacher/tutor score the assessments they administered, the tests, answer booklets, and scores are forwarded to and checked by another staff member. Math teachers cross check math assessment scores of another teacher before submitting them to the Math Department Head for a final review. In like manner, tutors double check the ELA assessments. A separate room is set up with the student protocols, answer sheets/booklets, and scoring manuals for the second scoring of the ELA assessments. Working in teams, the tutors cross check the raw scores by recounting the number of correct responses within the test booklet. They check that the subsequent scores (i.e. GE, PR, NCE, etc.) have been accurately obtained and recorded on the test booklet. To ensure scores were accurately entered into the database, scores are cross-checked with a database printout. This score validation process generally requires between 2 and 2.5 full school days to complete. In the 2017-18 school year, the Second Scoring process involved 23 tutors working in teams for two full school days. The results from the Second Scoring are sent to the In-House Testing Coordinator and Head of Orton-Gillingham Training and Instruction for a final review in which they look for any anomalies on the database printouts.

The school staff meets with parents twice yearly to review testing results and discuss academic plans and/or progress. GMRT, WRAT5 and GMADE scores are among those reported to the parents and student testing data utilized for development of individual and group academic goals as well as classroom instruction.

Security

Camperdown testing protocols remain locked in a secured location and accessible by select staff members (i.e. In-House Testing Coordinator, Head of Orton-Gillingham Training and Instruction, and Head of School). The testing database is accessible only on the school campus and no one is allowed to take any testing or testing folders out of the school. Camperdown retains all test scores throughout the student's enrollment and up to 3 years after they exit.

Trident Academy

Staff Preparation

The Trident staff receives training on ELA and Math assessment administration and scoring twice yearly. An in-depth training takes place during the 8-day in-service prior to school opening. During this training session, teachers are given instruction on test administration, scoring and scoring validity measures. Participants are provided with a 'testing' binder which includes testing protocols, scoring charts, test administration directions, test security measures, and in-house student score submission procedures. Teachers unfamiliar with GMRT administration and/or scoring procedures in addition to the initial instruction, receive hands-on training. This training involves direct observation of an experienced staff member (i.e. Orton-Gillingham Training Fellow) administering the assessment, scoring the assessment observed along with the experienced staff member, and culminating with the LEAD Director checking the scores. The spring staff training serves as a review of testing administration and scoring procedures followed during the fall assessments.

Test Administration

Trident administers the GMRT twice yearly as part of their formal ELA battery of assessments in the fall and spring. The school has chosen to hand score their assessments and administer the Level S & T forms denoted by GMRT developers as "Hand-Scorable". Alternate test forms are utilized in the fall and spring to measure student growth over time with the fall assessment data serving as the student baseline for the school year. Due to the language learning difficulties of their student population, Trident has elected to administer this test individually. Students are assessed by their classroom teacher 1:1 in a separate room.

Trident administers the WRAT5 Math Computation assessment twice yearly- fall and spring as a group assessment for Middle and Upper level students. However, individual administration takes place in a separate room for the Lower level or elementary students. Alternate test forms are utilized in the fall and spring to

measure student growth over time with the fall assessment data serving as the student baseline for the school year.

In preparation for administration, teachers also review a list of GMRT “Do’s and Don’ts and administration instructions located in the testing binder received during the fall in-service training. Test item answers are recorded in Hand-Scorable testing booklets. Teachers are asked to administer the vocabulary and reading comprehension on separate days. Note: Teachers determine the GMRT level to be administered per individual student. Teachers may consult with designated staff members for a second opinion on the test level selected.

Prior to testing, Math teachers review WRAT-5 Manual and Math Computation administration procedures, scoring and overall general considerations located in the testing binder received during the fall in-service. Teachers may consult with the Math Department Chair for questions or noted concerns. Students’ record answers in the Response Booklet that coincides with the WRAT5 test form administered. Teachers are asked to administer this particular Math test during the second week of informal assessments.

Scoring

Once the tests are completed, staff members utilize the corresponding test manual, tables/appendices, Norms Book and coordinating test forms and level Booklet Scoring Keys to obtain the raw score per assessment. The GMRT and WRAT 5 manuals provide tables/appendices for converting this data into the ESS, GE, GSV, NCE, PR, SS and S scores. Lexile scores are gathered from the Lexile Conversions Booklet using the student GMRT comprehension raw score.

Scoring variances occur when a student uses an extended time accommodation on a timed assessment. This produces two raw scores- timed and untimed, for that section of the test and for the total score. Students taking the GMRT may be assessed out of level or on a level different from their actual grade. For example, a student in the 6th grade experiencing reading difficulty may be assessed with a level 4 form which is developed for students in the 4th grade. When this occurs the phrase “out-of-level” is written on the back of the student’s test booklet. After acquiring the student’s raw score, teachers use the Manual of Scoring and Interpretation that matches the level of the test administered. For each set of data, the GE and ESS is obtained. This is followed by use of the Out-of-Level-Norms booklet corresponding with the test level administered. Teachers derive the NCE, PR, and S scores utilizing the ESS obtained from the Manual for Scoring and Interpretation.

Score Validation

At the end of both the fall and spring testing periods, teachers submit a summary of individual student ELA and Math scores. The GMRT scores along with all other formal ELA testing data acquired (i.e. Test of Word Recognition Efficiency, Test of Written Spelling and Rapid Automatized Naming) is uploaded to a google document for review by the LEAD Director who serves as the ELA Testing Coordinator and the school's Orton-Gillingham Fellow (Fellow). In like manner, Math teachers submit a summary of individual student Math assessment scores and accompanying data to the Math Chair for review. The Math Chair and Trident Dean of Faculty check all reported math scores and accompanying data.

The GE, ESS, NCE, PR and S scores are double checked according to the reported raw score. Unusual scores can lead to a recount of the number of correct responses within the test booklet and comparison of the raw score originally reported. Once validated, all google document test summaries are printed and placed in a designated folder.

As part of a student progress tracking system put into effect in 2018-19 school year, assessment scores are added to an ELA or Math bell curve distribution chart. The chart depicts individual student fall and spring standards scores, percentiles, and subtest scale scores in relation to the student's 'Difficulty on Grade-Level School Work', 'Achievements Test' performance, and 'Intelligent Quotient' test score.

Validation of student assessment scores takes up to two weeks on average to complete. Formal and informal ELA and Math assessment scores are reported to the parents and its' data utilized for development of academic goals and classroom instruction.

Security

Trident's testing protocols remain locked in a secured location and accessible by select staff members (i.e. LEAD Testing Coordinator, Math Department Chair, and Head of School). The completed tests are locked in a separate room and stored for a number of years. Trident retains all test scores throughout the student's enrollment and 1-3 years after they exit.

Findings & Conclusion

The SC EOC goal to determine evidence of measurable improvement for students participating in the ECENC program requires assurance that reported student assessment data is both valid and reliable. Confirming that a program has positively impacted student learning necessitates a comparison of a baseline or student skill level before intervention and an end-line, student skill level after the intervention(s) have been implemented. Hence, a student's increase in reading and/or math skill level is an indication that the academic program is indeed effective.

When determining whether students in the ECENC program are making measurable progress, it is imperative that the EOC receive quality data as determined by its validity, reliability, integrity, and precision. This report briefly describes the internal program monitoring system implemented by the two schools, Camperdown Academy and Trident Academy and their use of hand-scored data. Here are the findings:

1. Validity: data clearly and effectively represent the intended result
 - Camperdown and Trident obtain baseline data in early fall within the first few weeks of school prior to concerted interventions.
 - Camperdown and Trident obtain spring end-line data on instruments comparable to the instruments used to acquire a baseline and are performed after ample interventions had been implemented.
 - Camperdown administers one assessment yearly, the GMADE. However a spring to spring assessment can meet the validity measure when the previous year's assessment is used as the baseline data for the following school year.
 - Camperdown and Trident implement accommodations believed appropriate for their student population. However, decisions were made to implement accommodations across the board as opposed to individual need.

Data validity increases with the comparability of the end-line data assessment instrument to the baseline data assessment instrument.

2. Reliability: consistent data collection processes and data analysis methods
 - Camperdown and Trident reported fall and spring staff trainings focused on publisher testing administration and scoring methods as well as school scoring validation processes.

- Camperdown and Trident created testing binders enabling all personnel to have access to the same testing administration and scoring information.
 - Camperdown and Trident reported extra steps to ensure all assigned staff members were familiar with and experienced in the Hand-Scorable administration and scoring procedures.
 - Camperdown and Trident converted raw scores into several ratings for data analysis.
3. Integrity: safeguards that minimize transcription error or data manipulation
- Camperdown and Trident implemented multi-layered score validation processes for the ELA and Math assessments
 - Camperdown and Trident maintain assessment instrument and test score security measures
4. Precision: data is detailed enough to allow management decision making
- Camperdown and Trident utilize the data to inform classroom instruction and individual student programming
 - Camperdown and Trident share data results with parents.
 - Camperdown meets with parents twice yearly to determine student academic goals for the year and review progress.
 - Trident implemented a student progress tracking system comparing spring and fall scores in relation to student IQ and grade level functioning.

Camperdown and Trident's election to perform Hand-Scorable assessments is not only likely more affordable; the hand-scored assessment method is more conducive to collecting contextual data useful for formulating appropriate and timely educational decisions.

Recommendations

The ECENC program is both a gift to families of children with disabilities and an investment to the future that all of us in the state of SC will share. Therefore, it is essential to ensure that the ECENC participating schools not only serve effectively, but in a manner deemed appropriate for their students with disabilities. The findings indicate that these two schools seek to strike a balance among accuracy, practicality and appropriateness in administering, scoring and analyzing student assessments. It is in this evaluator's opinion, that hand-scored data can be utilized for future EOC evaluation reports if schools maintain a level of effectiveness in the 4 areas of data quality noted above (i.e. validity, reliability, integrity and precision)

Validity: data clearly and effectively represent the intended result.

It is recommended that schools with hand-scored data:

- Obtain baseline data within the first 3 weeks of school and before the end of the 4th week. Schools may utilize annual assessments if the previous year's assessment was conducted 6 weeks or less to the end of the school year.
- Implement baseline and end-line data (fall and spring or spring to spring) given at a different level or alternate form of the same level. The pre and post assessments must be the same assessment or one that is highly compatible.
- Ensure that all accommodations utilized are allowable by test publisher with reason documented for implementation of any unapproved accommodations and identify subsequent student score as 'not statistically valid'.

Reliability: consistent data collection processes and data analysis methods

It is recommended that schools with hand-scored data

- Conduct assessment administration training twice yearly to school staff working with testing in any way (i.e. test administrator, monitor, scorer, etc.) 1-3 weeks before test administration. The following topics must be covered for all formal assessments being reported to EOC: publisher test administration and scoring requirements, security measures, and school's score validation procedures. Note: At least one of the training sessions must be an in-depth training. If the second training session is not as detailed or in-depth as the first, more practice opportunities and procedures to handle uncommon situations should be included.
- Provide training agenda and content outline to EOC at the time of end-of-year assessment score submission. Incorporate practice opportunities in administration and scoring.

- Obtain participant signature acknowledging completion of fall and spring training sessions and submit with annual assessment scores reported to EOC.

Integrity: safeguards that minimize transcription error or data manipulation

It is recommended that schools with hand-scored data:

- Describe procedures to ensure accuracy of the recorded/transcribed student answers when response accommodations are implemented.
- Obtain signed security agreement and confidentiality/nondisclosure forms (maintain copy for records annually.) These documents can be discarded after 1 year.
- Describe testing security measures, and score validation process when assessment scores are submitted to EOC.

Precision: data is detailed enough to allow management decision making

It is recommended that schools with hand-scored data:

- Describe how information derived from the assessments positively impacted student outcomes or student programming.
- Describe their use of assessment data to augment parent involvement and inform individual student and/or group educational decisions.

It is recommended that hand-scored data provided by Camperdown Academy and Trident Academy be used to report student academic progress as required by the ECENC program. The EOC should request both fall and spring assessment data to document growth during the school year of the students who attend Camperdown Academy and Trident Academy.

References & Resources

Camperdown Academy <http://www.camperdown.org/>

Center on Response to Intervention <https://rti4success.org/resources/tools-charts>

National Center on Intensive Intervention <https://intensiveintervention.org/>

Pearson Assessments <https://www.pearsonassessments.com/professional-assessments.html>

SC Educational Credit for Exceptional Needs Children <https://www.eoc.sc.gov/ecenc-program>

SC Legislature – Educational Credit for Exceptional Needs Children Fund

<https://www.scstatehouse.gov/billsearch.php?billnumbers=4077&session=122&summary=B>

Trident Academy <https://tridentacademy.com/>

US AID Learning Lab <https://usaidlearninglab.org/mel-toolkits>

WPS Publishing <https://www.wpspublish.com/app/>