

Report of the External Review Team for Washington School for the Deaf

611 Grand Blvd
Vancouver
WA 98661-4918
US

Jane Mulholland

Date: December 16, 2014 - December 17, 2014



Copyright (c) 2015 by Advance Education, Inc. AdvancED™ grants to the Institution, which is the subject of the External Review Team Report, and its designees and stakeholders a non-exclusive, perpetual, irrevocable, royalty-free license and release to reproduce, reprint, and distribute this report in accordance with and as protected by the Copyright Laws of the United States of America and all foreign countries. All other rights not expressly conveyed are reserved by AdvancED™.

Table of Contents

Introduction 4

Results 9

 Teaching and Learning Impact 9

 Standard 3 - Teaching and Assessing for Learning 10

 Standard 5 - Using Results for Continuous Improvement 11

 Student Performance Diagnostic 11

 Effective Learning Environments Observation Tool (eleot™) 13

 eleot™ Data Summary 15

 Findings 18

 Leadership Capacity 20

 Standard 1 - Purpose and Direction 21

 Standard 2 - Governance and Leadership 21

 Stakeholder Feedback Diagnostic 21

 Findings 22

 Resource Utilization 24

 Standard 4 - Resources and Support Systems 24

 Findings 25

Conclusion 27

 Accreditation Recommendation 29

Addenda 30

 Team Roster 30

 Next Steps 31

 About AdvancED 32

 References 33

Introduction

The External Review is an integral component of AdvancED Performance Accreditation and provides the institution with a comprehensive evaluation guided by the results of diagnostic instruments, in-depth review of data and documentation, and the professional judgment of a team of qualified and highly trained evaluators. A series of diagnostic instruments examines the impact of teaching and learning on student performance, the capacity of leadership to effect continuous improvement, and the degree to which the institution optimizes its use of available resources to facilitate and support student success. The results of this evaluation are represented in the Index of Education Quality (IEQ™) and through critical observations, namely, Powerful Practices, Opportunities for Improvement, and Improvement Priorities.

Accreditation is a voluntary method of quality assurance developed more than 100 years ago by American universities and secondary schools and designed primarily to distinguish schools adhering to a set of educational standards. Today the accreditation process is used at all levels of education and is recognized for its ability to effectively drive student performance and continuous improvement in education.

Institutions seeking to gain or retain accreditation must meet AdvancED Standards specific to their institution type, demonstrate acceptable levels of student performance and the continuous improvement of student performance, and provide evidence of stakeholder engagement and satisfaction. The power of AdvancED Performance Accreditation lies in the connections and linkages between and among the conditions, processes, and practices within a system that impact student performance and organizational effectiveness.

Standards help to delineate what matters. They provide a common language through which an education community can engage in conversations about educational improvement, system effectiveness, and achievement. They serve as a foundation for planning and implementing improvement strategies and activities and for measuring success. AdvancED Standards were developed by a committee comprised of talented educators and leaders from the fields of practice, research, and policy who applied professional wisdom, deep knowledge of effective practice, and the best available research to craft a set of robust standards that define institutional quality and guide continuous improvement. Prior to implementation, an internationally recognized panel of experts in testing and measurement, teacher quality, and education research reviewed the standards and provided feedback, guidance and endorsement.

The AdvancED External Review Team uses AdvancED Standards, associated indicators and criteria related to student performance and stakeholder engagement to guide its evaluation. The Team examines adherence to standards as well as how the institution functions as a whole and embodies the practices and characteristics expected of an accredited institution. The Standards, indicators and related criteria are evaluated using indicator-specific performance levels. The Team rates each indicator and criterion on a scale of 1 to 4. The final scores assigned to the indicators and criteria represent the average of the External Review Team members' individual ratings.

The External Review is the hallmark of AdvancED Performance Accreditation. It energizes and equips the institution's leadership and stakeholders to achieve higher levels of performance and address those areas that

may be hindering efforts to reach desired performance levels. External Review is a rigorous process that includes the in-depth examination of evidence and relevant data, interviews with all stakeholder groups, and extensive observations of learning, instruction, and operations.

Use of Diagnostic Tools

A key to examining the institution is the design and use of diagnostic tools that reveal the effectiveness with which an institution creates conditions and implements processes and practices that impact student performance and success. In preparation for the External Review the institution conducted a Self Assessment that applied the standards and criteria for accreditation. The institution provided evidence to support its conclusions vis a vis organizational effectiveness in ensuring acceptable and improving levels of student performance.

- an indicator-based tool that connects the specific elements of the criteria to evidence gathered by the team;
- a student performance analytic that examines the quality of assessment instruments used by the institution, the integrity of the administration of the assessment to students, the quality of the learning results including the impact of instruction on student learning at all levels of performance, and the equity of learning that examines the results of student learning across all demographics;
- a stakeholder engagement instrument that examines the fidelity of administration and results of perception surveys seeking the perspective of students, parents, and teachers;
- a state-of-the-art, learner-centric observation instrument, the Effective Learning Environments Observation Tool (eleot™) that quantifies students' engagement, attitudes and dispositions organized in 7 environments: Equitable Learning, High Expectations, Supportive Learning, Active Learning, Progress Monitoring and Feedback, Well-Managed Learning, and Digital Learning. All evaluators must be trained, reach acceptable levels of inter-rater reliability, and certified to use this research-based and validated instrument.

The External Review Team's findings and critical observations are shared in this report through the IEQ™ results as well as through the identification of Powerful Practices, Opportunities for Improvement, and Improvement Priorities.

Index of Education Quality

In the past, accreditation reviews resulted in an accreditation recommendation on status. Labels such as advised, warned, probation, or all clear were used to describe the status of a school relative to the AdvancED Standards and other evaluative criteria. Beginning in the 2013-14 school year, AdvancED introduced a new framework to describe the results of an accreditation review. Consistent with the modern focus of accreditation on continuous improvement with an emphasis on student success, AdvancED introduced an innovative and state-of-the-art framework for diagnosing and revealing institutional performance called the Index of Education Quality (IEQ™). The IEQ™ comprises three domains of performance: 1) the impact of teaching and learning on student performance; 2) the capacity of leadership to guide the institution toward the achievement of its

vision and strategic priorities; and 3) use of resources to support and optimize learning. Therefore, your institution will no longer receive an accreditation status. Instead, your institution will be accredited with an IEQ™ score. In the case where an institution is failing to meet established criteria, the accreditation will be under review thereby requiring frequent monitoring and demonstrated improvement.

The three domains of performance are derived from the AdvancED Standards and associated indicators, the analysis of student performance, and the engagement and feedback of stakeholders. Within each domain institutions can connect to the individual performance levels that are applied in support of the AdvancED Standards and evaluative criteria. Within the performance levels are detailed descriptors that serve as a valuable source of guidance for continuous improvement. Upon review of the findings in this report and building on their Powerful Practices, institutional leaders should work with their staff to review and understand the evidence and rationale for each Opportunity for Improvement and Improvement Priority as well as the corresponding pathway to improvement described in the performance levels of the selected indicator(s).

The IEQ™ provides a new framework that recognizes and supports the journey of continuous improvement. An institution's IEQ™ is the starting point for continuous improvement. Subsequent actions for improvement and evidence that these have had a positive impact will raise the institution's IEQ™ score.

Benchmark Data

Throughout this report, AdvancED provides benchmark data for each indicator and for each component of the evaluative criteria. These benchmark data represent the overall averages across the entire AdvancED Network for your institution type. Thus, the AdvancED Network average provides an extraordinary opportunity for institutions to understand their context on a global scale rather than simply compared to a state, region, or country.

It is important to understand that the AdvancED Network averages are provided primarily to serve as a tool for continuous improvement and not as a measure of quality in and of itself. Benchmark data, when wisely employed, have a unique capacity to help institutions identify and leverage their strengths and areas of improvement to significantly impact student learning.

Powerful Practices

A key to continuous improvement is the institution's ability to learn from and build upon its most effective and impactful practices. Such practices serve as critical leverage points necessary to guide, support and ensure continuous improvement. A hallmark of the accreditation process is its commitment to identifying with evidence, the conditions, processes and practices that are having the most significant impact on student performance and institutional effectiveness. Throughout this report, the External Review Team has captured and defined Powerful Practices. These noteworthy practices are essential to the institution's effort to continue its journey of improvement.

Opportunities for Improvement

Every institution can and must improve no matter what levels of performance it has achieved in its past. During the process of the review, the External Review Team identified areas of improvement where the institution is meeting the expectations for accreditation but in the professional judgment of the Team these are Opportunities for Improvement that should be considered by the institution. Using the criteria described in the corresponding rubric(s) to the Opportunity for Improvement, the institution can identify what elements of practice must be addressed to guide the improvement.

Improvement Priorities

The expectations for accreditation are clearly defined in a series of the rubric-based AdvancED Standards, indicators and evaluative criteria focused on the impact of teaching and learning on student performance, the capacity of the institution to be guided by effective leadership, and the allocation and use of resources to support student learning. As such, the External Review Team reviewed, analyzed and deliberated over significant bodies of evidence provided by the institution and gathered by the Team during the process. In the professional judgment of the Team as well as the results of the diagnostic process, the Team defined, with rationale, Improvement Priorities. The priorities must be addressed in a timely manner by the institution to retain and improve their accreditation performance as represented by the IEQ™. Improvement Priorities serve as the basis for the follow-up and monitoring process that will begin upon conclusion of the External Review. The institution must complete and submit an Accreditation Progress Report within two years of the External Review. The report must include actions taken by the institution to address the Improvement Priorities along with the corresponding evidence and results. The IEQ™ will be recalculated by AdvancED upon review of the evidence and results associated with the Improvement Priorities.

The Review

The External Review Team's preparation for the External Review began several weeks in advance of the visit with team members being provided the Accreditation Report and other materials. Having the materials permitted the team members to develop preliminary questions. The External Review took place on December 16, 2014 and December 17, 2014.

The External Review Team consisted of four educators, all of whom spent considerable time examining artifacts and evidence, interviewing stakeholders, and observing in classrooms. Team members totaled over 100 years of educational experience and included a mix of traditional and deaf education leadership. The team prepared offsite by reviewing information including: the Accreditation Report, School Improvement Plan, Stakeholder Surveys, Data Documents, and other artifacts.

During the on-site portion of the review, the External Review Team conducted 43 interviews with administrators, teachers, support staff members, students, and parents. The team completed 18 classroom observations utilizing the eleot™ tool. Team members met for several hours as a group to review artifacts, analyze data from interviews and observations, discuss and document their findings, record indicator ratings, cite evidence, and write Powerful Practices, Opportunities for Improvement, and Improvement Priorities.

The team found staff members, students, and parents to be very open, honest, helpful, forthcoming, and proud of the school. The team was very impressed with many aspects of the visit. Washington School for the Deaf was well prepared for the External Review. The principal and Leadership Team were thorough in gathering a broad-based input into the Self Assessment, completing the Accreditation Report, and preparing files for each of the Standards with supporting evidence. They presented a detailed overview which addressed the school's areas of greatest strengths and areas of greatest need. This presentation was helpful for the External Team Members as it highlighted the mission, goals, and programs of the school.

Throughout the visit, the team was given unencumbered access to all documents and records through hard copies set up before our arrival. The school was most helpful and thorough in their attentiveness and diligence. This information included Mission and Vision Statements, strategic plan, performance data, school budget, and school policies. The school was well-prepared, most transparent in observations shared, and everyone from staff members to students exhibited real school pride.

The entire External Review Team would like to extend their sincere thanks to the school's Leadership Team and staff members for their exceptional preparation for the review. It was evident to the External Review Team that the school is well managed, focused on continuous improvement, and dedicated to maximizing student academic achievement.

Stakeholders were interviewed by members of the External Review Team to gain their perspectives on topics relevant to the institution's effectiveness and student performance. The feedback gained through the stakeholder interviews was considered with other evidences and data to support the findings of the External Review. The following chart depicts the numbers of persons interviewed representative of various stakeholder groups.

Stakeholder Interviewed	Number
Chief Executive Officer/President	1
Administrators	2
Instructional Staff	12
Support Staff	7
Students	18
Parents/Community/Business Leaders	3
Total	43

Results

Teaching and Learning Impact

The impact of teaching and learning on student achievement is the primary expectation of every institution. The relationship between teacher and learner must be productive and effective for student success. The impact of teaching and learning includes an analysis of student performance results, instructional quality, learner and family engagement, support services for student learning, curriculum quality and efficacy, and college and career readiness data. These are all key indicators of an institution's impact on teaching and learning.

A high-quality and effective educational system has services, practices, and curriculum that ensure teacher effectiveness. Research has shown that an effective teacher is a key factor for learners to achieve their highest potential and be prepared for a successful future. The positive influence an effective educator has on learning is a combination of "student motivation, parental involvement" and the "quality of leadership" (Ding & Sherman, 2006). Research also suggests that quality educators must have a variety of quantifiable and intangible characteristics that include strong communication skills, knowledge of content, and knowledge of how to teach the content. The institution's curriculum and instructional program should develop learners' skills that lead them to think about the world in complex ways (Conley, 2007) and prepare them to have knowledge that extends beyond the academic areas. In order to achieve these goals, teachers must have pedagogical skills as well as content knowledge (Baumert, J., Kunter, M., Blum, W., Brunner, M., Voxx, T., Jordan, A., Klusmann, U., Krauss, S., Nuebrand, M., & Tsai, Y., 2010). The acquisition and refinement of teachers' pedagogical skills occur most effectively through collaboration and professional development. These are a "necessary approach to improving teacher quality" (Colbert, J., Brown, R., Choi, S., & Thomas, S., 2008). According to Marks, Louis, and Printy (2002), staff members who engage in "active organizational learning also have higher achieving students in contrast to those that do not." Likewise, a study conducted by Horng, Klasik, and Loeb (2010), concluded that leadership in effective institutions "supports teachers by creating collaborative work environments." Institutional leaders have a responsibility to provide experiences, resources, and time for educators to engage in meaningful professional learning that promotes student learning and educator quality.

AdvancED has found that a successful institution implements a curriculum based on clear and measurable expectations for student learning. The curriculum provides opportunities for all students to acquire requisite knowledge, skills, and attitudes. Teachers use proven instructional practices that actively engage students in the learning process. Teachers provide opportunities for students to apply their knowledge and skills to real world situations. Teachers give students feedback to improve their performance.

Institutions with strong improvement processes move beyond anxiety about the current reality and focus on priorities and initiatives for the future. Using results, i.e., data and other information, to guide continuous improvement is key to an institution's success. A study conducted by Datnow, Park, and Wohlstetter (2007) from the Center on Educational Governance at the University of Southern California indicated that data can shed light on existing areas of strength and weakness and also guide improvement strategies in a systematic and strategic manner (Dembosky, J., Pane, J., Barney, H., & Christina, R., 2005). The study also identified six

key strategies that performance-driven systems use: (1) building a foundation for data-driven decision making, (2) establishing a culture of data use and continuous improvement, (3) investing in an information management system, (4) selecting the right data, (5) building institutional capacity for data-driven decision making, and (6) analyzing and acting on data to improve performance. Other research studies, though largely without comparison groups, suggested that data-driven decision-making has the potential to increase student performance (Alwin, 2002; Doyle, 2003; Lafee, 2002; McIntire, 2002).

Through ongoing evaluation of educational institutions, AdvancED has found that a successful institution uses a comprehensive assessment system based on clearly defined performance measures. The system is used to assess student performance on expectations for student learning, evaluate the effectiveness of curriculum and instruction, and determine strategies to improve student performance. The institution implements a collaborative and ongoing process for improvement that aligns the functions of the school with the expectations for student learning. Improvement efforts are sustained, and the institution demonstrates progress in improving student performance and institution effectiveness.

Standard 3 - Teaching and Assessing for Learning

The school's curriculum, instructional design, and assessment practices guide and ensure teacher effectiveness and student learning.

Indicator	Description	Review Team Score	AdvancED Network Average
3.1	The school's curriculum provides equitable and challenging learning experiences that ensure all students have sufficient opportunities to develop learning, thinking, and life skills that lead to success at the next level.	2.75	2.88
3.2	Curriculum, instruction, and assessment are monitored and adjusted systematically in response to data from multiple assessments of student learning and an examination of professional practice.	2.25	2.53
3.3	Teachers engage students in their learning through instructional strategies that ensure achievement of learning expectations.	3.00	2.67
3.4	School leaders monitor and support the improvement of instructional practices of teachers to ensure student success.	4.00	2.78
3.5	Teachers participate in collaborative learning communities to improve instruction and student learning.	2.75	2.63
3.6	Teachers implement the school's instructional process in support of student learning.	2.00	2.66
3.7	Mentoring, coaching, and induction programs support instructional improvement consistent with the school's values and beliefs about teaching and learning.	2.50	2.58
3.8	The school engages families in meaningful ways in their children's education and keeps them informed of their children's learning progress.	3.00	3.12

Indicator	Description	Review Team Score	AdvancED Network Average
3.9	The school has a formal structure whereby each student is well known by at least one adult advocate in the school who supports that student's educational experience.	3.75	3.07
3.10	Grading and reporting are based on clearly defined criteria that represent the attainment of content knowledge and skills and are consistent across grade levels and courses.	2.00	2.77
3.11	All staff members participate in a continuous program of professional learning.	4.00	2.57
3.12	The school provides and coordinates learning support services to meet the unique learning needs of students.	3.75	2.71

Standard 5 - Using Results for Continuous Improvement

The school implements a comprehensive assessment system that generates a range of data about student learning and school effectiveness and uses the results to guide continuous improvement.

Indicator	Description	Review Team Score	AdvancED Network Average
5.1	The school establishes and maintains a clearly defined and comprehensive student assessment system.	2.75	2.72
5.2	Professional and support staff continuously collect, analyze, and apply learning from a range of data sources, including comparison and trend data about student learning, instruction, program evaluation, and organizational conditions.	1.75	2.44
5.3	Professional and support staff are trained in the evaluation, interpretation, and use of data.	2.00	2.09
5.4	The school engages in a continuous process to determine verifiable improvement in student learning, including readiness for and success at the next level.	2.00	2.53
5.5	Leadership monitors and communicates comprehensive information about student learning, conditions that support student learning, and the achievement of school improvement goals to stakeholders.	2.00	2.78

Student Performance Diagnostic

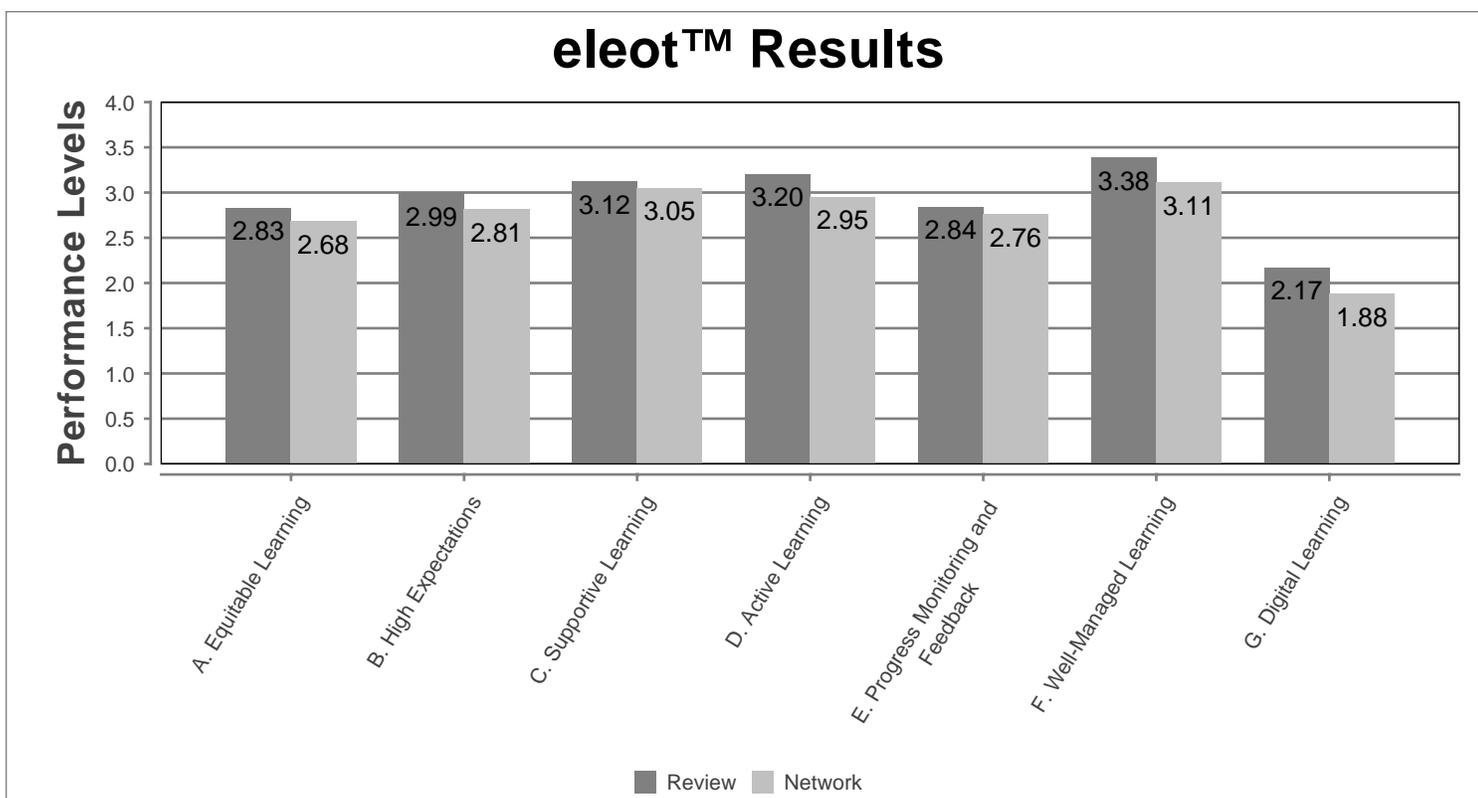
The quality of assessments used to measure student learning, assurance that assessments are administered with procedural fidelity and appropriate accommodations, assessment results that reflect the quality of learning, and closing gaps in achievement among subpopulations of students are all important indicators for evaluating overall student performance.

Evaluative Criteria	Review Team Score	AdvancED Network Average
Assessment Quality	3.00	3.10
Test Administration	3.00	3.47
Equity of Learning	2.00	2.74
Quality of Learning	3.00	2.98

Effective Learning Environments Observation Tool (eleot™)

Every learner should have access to an effective learning environment in which she/he has multiple opportunities to be successful. The Effective Learning Environments Observation Tool (eleot™) measures the extent to which learners are in an environment that is equitable, supportive, and well-managed. An environment where high expectations are the norm and active learning takes place. It measures whether learners' progress is monitored and feedback is provided and the extent to which technology is leveraged for learning.

Observations of classrooms or other learning venues are conducted for a minimum of 20 minutes per observation. Every member of the External Review Team is required to be trained and pass a certification exam that establishes inter-rater reliability. Team members conduct multiple observations during the review process and provide ratings on 30 items based on a four-point scale (4=very evident; 3=evident; 2=somewhat evident; and 1=not observed). The following provides the aggregate average score across multiple observations for each of the seven learning environments included in eleot™ as well as benchmark results across the AdvancED Network.



During the two-day External Review, the team evaluated the learning environment by conducting 18 classroom observations using the Effective Learning Environment Observation Tool (eleot™). Using data from these observations, the team evaluated the quality of instruction and learning that took place classified around seven constructs or environments: equity, high expectations, support, engagement, progress monitoring and feedback, management, and use of technology.

Of the seven learning environments, the active learning environment and a well-managed classroom scored the highest. Subcategories reflected learners actively engaged, who spoke respectfully to their peers and teachers, transitioned well between classes and worked well with others. Digital learning scored the lowest, especially related to students using digital tools to collaborate and communicate. Another lower subcategory reflected that activities gave little opportunity to learn about their own and other's background, culture, and differences.

Compared to averages in the AdvancED network this school is stronger in all areas, with the well-managed classroom having the most significant differentiation with the AdvancED network. Overall there appears to be strong and dedicated staff members; committed to ensuring student success and clearly focused on the school's mission.

Strengths in observed learning environments are in the areas of Active Learning Environment and Well Managed Classroom. Specifically, the External Review Team commends the school for creating a powerful learning culture. Students came to class ready to learn and exhibited respect for the learning process. The team observed classrooms that are highly engaged throughout. Students demonstrated a strong element of respect for their peers and teachers. Students commented on the power of learning in a deaf community, compared to a mainstream classroom. The key element for the learner is being able to communicate with classmates and instructors directly, increasing their engagement in learning.

All students are on individual learning plans that are reviewed annually, allowing for differentiated curriculum throughout the school. The team noted examples of this differentiated learning for students during their observations. Creating more connections with the student's background and culture would further enhance the student's engagement in learning. One of the challenges for the Washington School for the Deaf (WSD) is access strong digital learning tools to enhance learning. Access the power of visual learning through technology is key for deaf education.

With an active, caring, learning environment, a dedicated staff, and a clear school mission, WSD provide students a powerful learning community. Through the bilingual/bicultural approach to learning, students develop both the skills and confidence to reach their potentials as learners. Students exhibit a strong respect for their instructors and peers. Differentiated instruction increases opportunities for all students to be successful. This observations of the learning environments revealed that this specialized school is provided students a strong experience, exceeding the AdvancEd network schools in all indicator areas.

eleot™ Data Summary

A. Equitable Learning			%			
Item	Average	Description	Very Evident	Evident	Somewhat Evident	Not Observed
1.	2.94	Has differentiated learning opportunities and activities that meet her/his needs	44.44%	27.78%	5.56%	22.22%
2.	3.67	Has equal access to classroom discussions, activities, resources, technology, and support	83.33%	5.56%	5.56%	5.56%
3.	3.00	Knows that rules and consequences are fair, clear, and consistently applied	61.11%	5.56%	5.56%	27.78%
4.	1.72	Has ongoing opportunities to learn about their own and other's backgrounds/cultures/differences	5.56%	16.67%	22.22%	55.56%
Overall rating on a 4 point scale: 2.83						

B. High Expectations			%			
Item	Average	Description	Very Evident	Evident	Somewhat Evident	Not Observed
1.	3.33	Knows and strives to meet the high expectations established by the teacher	55.56%	27.78%	11.11%	5.56%
2.	3.61	Is tasked with activities and learning that are challenging but attainable	66.67%	27.78%	5.56%	0.00%
3.	2.33	Is provided exemplars of high quality work	16.67%	33.33%	16.67%	33.33%
4.	3.17	Is engaged in rigorous coursework, discussions, and/or tasks	55.56%	16.67%	16.67%	11.11%
5.	2.50	Is asked and responds to questions that require higher order thinking (e.g., applying, evaluating, synthesizing)	27.78%	22.22%	22.22%	27.78%
Overall rating on a 4 point scale: 2.99						

C. Supportive Learning			%			
Item	Average	Description	Very Evident	Evident	Somewhat Evident	Not Observed
1.	2.94	Demonstrates or expresses that learning experiences are positive	44.44%	27.78%	5.56%	22.22%
2.	2.94	Demonstrates positive attitude about the classroom and learning	44.44%	27.78%	5.56%	22.22%
3.	3.17	Takes risks in learning (without fear of negative feedback)	61.11%	16.67%	0.00%	22.22%
4.	3.28	Is provided support and assistance to understand content and accomplish tasks	55.56%	27.78%	5.56%	11.11%
5.	3.28	Is provided additional/alternative instruction and feedback at the appropriate level of challenge for her/his needs	50.00%	33.33%	11.11%	5.56%
Overall rating on a 4 point scale: 3.12						

D. Active Learning			%			
Item	Average	Description	Very Evident	Evident	Somewhat Evident	Not Observed
1.	3.17	Has several opportunities to engage in discussions with teacher and other students	61.11%	5.56%	22.22%	11.11%
2.	2.61	Makes connections from content to real-life experiences	38.89%	16.67%	11.11%	33.33%
3.	3.83	Is actively engaged in the learning activities	88.89%	5.56%	5.56%	0.00%
Overall rating on a 4 point scale: 3.20						

E. Progress Monitoring and Feedback			%			
Item	Average	Description	Very Evident	Evident	Somewhat Evident	Not Observed
1.	2.83	Is asked and/or quizzed about individual progress/learning	33.33%	33.33%	16.67%	16.67%
2.	3.00	Responds to teacher feedback to improve understanding	50.00%	22.22%	5.56%	22.22%
3.	3.56	Demonstrates or verbalizes understanding of the lesson/content	66.67%	27.78%	0.00%	5.56%
4.	2.17	Understands how her/his work is assessed	11.11%	27.78%	27.78%	33.33%
5.	2.67	Has opportunities to revise/improve work based on feedback	38.89%	22.22%	5.56%	33.33%
Overall rating on a 4 point scale: 2.84						

F. Well-Managed Learning			%			
Item	Average	Description	Very Evident	Evident	Somewhat Evident	Not Observed
1.	3.78	Speaks and interacts respectfully with teacher(s) and peers	83.33%	11.11%	5.56%	0.00%
2.	3.72	Follows classroom rules and works well with others	83.33%	5.56%	11.11%	0.00%
3.	3.56	Transitions smoothly and efficiently to activities	77.78%	11.11%	0.00%	11.11%
4.	2.39	Collaborates with other students during student-centered activities	27.78%	22.22%	11.11%	38.89%
5.	3.44	Knows classroom routines, behavioral expectations and consequences	72.22%	11.11%	5.56%	11.11%
Overall rating on a 4 point scale: 3.38						

G. Digital Learning			%			
Item	Average	Description	Very Evident	Evident	Somewhat Evident	Not Observed
1.	2.61	Uses digital tools/technology to gather, evaluate, and/or use information for learning	33.33%	27.78%	5.56%	33.33%
2.	2.06	Uses digital tools/technology to conduct research, solve problems, and/or create original works for learning	27.78%	11.11%	0.00%	61.11%
3.	1.83	Uses digital tools/technology to communicate and work collaboratively for learning	16.67%	11.11%	11.11%	61.11%
Overall rating on a 4 point scale: 2.17						

Findings

Improvement Priority

Create and implement a plan to provide regular and consistent analysis of student data by instructional teams (PLC's). Use data to design, implement, and evaluate continuous improvement plans (SIP) to improve student learning, instruction, the effectiveness of programs, and organizational conditions.

(Indicators 5.2)

Evidence and Rationale

Reviews of the assessment calendars and plans indicated a vast amount of data from various assessments. Opportunities for professional development and PLC team collaboration (re: data analysis and next steps instructional planning) appear to be lacking. Staff member surveys indicated a need for improvement on Indicators 5.3 and 5.4, related to professional development and processes of data analysis and application. It is recommended to develop a plan to use student data to determine long range instructional plans as well as to drive daily instruction. This process should include students accessing their own learning data to set personal academic goals on a regular basis.

Other related indicators: 5.3, 5.4, 5.5

Powerful Practice

The school has implemented a bilingual/bicultural education learning model, providing professional training for all staff members.

(Indicators 3.11)

Evidence and Rationale

The Accreditation Report, staff interviews and documents provide ample evidence that the school has

successfully implemented their goal of establishing the school as an American Sign Language and English bilingual/bi-cultural school. A core of staff members have attended national training in the model. These staff members have led school-based training. By implementing this model, teachers have been able to access the student's native language to enhance both first and second language learning.

Powerful Practice

Washington School for the Deaf (WSD) provides a strong system of emotional and academic support for each student by providing an inclusive, welcoming environment, including a structured program of staff advocates assigned to each student.

(Indicators 3.9)

Evidence and Rationale

Evidence indicated a structured program of staff advocacy for each student, with consistent schedules for mentoring and support. In addition, the culture of WSD is built around the core belief of providing a safe learning environment for every child. All students interviewed were able to identify a caring adult who they would trust as an advisor and advocate. The supportive culture provides an environment where each child is able to make substantial academic and personal growth, as indicated in interviews and surveys of students, parents, and staff members.

Leadership Capacity

The capacity of leadership to ensure an institution's progress towards its stated objectives is an essential element of organizational effectiveness. An institution's leadership capacity includes the fidelity and commitment to its institutional purpose and direction, the effectiveness of governance and leadership to enable the institution to realize its stated objectives, the ability to engage and involve stakeholders in meaningful and productive ways, and the capacity to enact strategies to improve results of student learning.

Purpose and direction are critical to successful institutions. A study conducted in 2010 by the London-based Chartered Institute of Personnel and Development (CIPD) reported that "in addition to improving performance, the research indicates that having a sense of shared purpose also improves employee engagement" and that "lack of understanding around purpose can lead to demotivation and emotional detachment, which in turn lead to a disengaged and dissatisfied workforce."

AdvancED has found through its evaluation of best practices in more than 32,000 institutions around the world that a successful institution commits to a shared purpose and direction and establishes expectations for student learning that are aligned with the institutions' vision and supported by internal and external stakeholders. These expectations serve as the focus for assessing student performance and overall institution effectiveness.

Governance and leadership are key factors in raising institutional quality. Leaders, both local administrators and governing boards/authorities, are responsible for ensuring all learners achieve while also managing many other facets of an institution. Institutions that function effectively do so without tension between the governing board/authority, administrators, and educators and have established relationships of mutual respect and a shared vision (Feuerstein & Opfer, 1998). In a meta-analysis of educational institution leadership research, Leithwood and Sun (2012) found that leaders (school and governing boards/authority) can significantly "influence school conditions through their achievement of a shared vision and agreed-on goals for the organization, their high expectations and support of organizational members, and their practices that strengthen school culture and foster collaboration within the organization." With the increasing demands of accountability placed on institutional leaders, leaders who empower others need considerable autonomy and involve their communities to attain continuous improvement goals. Leaders who engage in such practices experience a greater level of success (Fink & Brayman, 2006). Similarly, governing boards/authorities that focus on policy-making are more likely to allow institutional leaders the autonomy to make decisions that impact teachers and students and are less responsive to politicization than boards/authorities that respond to vocal citizens (Greene, 1992).

AdvancED's experience, gained through evaluation of best practices, has indicated that a successful institution has leaders who are advocates for the institution's vision and improvement efforts. The leaders provide direction and allocate resources to implement curricular and co-curricular programs that enable students to achieve expectations for their learning. Leaders encourage collaboration and shared responsibility for school improvement among stakeholders. The institution's policies, procedures, and organizational conditions ensure equity of learning opportunities and support for innovation.

Standard 1 - Purpose and Direction

The school maintains and communicates a purpose and direction that commit to high expectations for learning as well as shared values and beliefs about teaching and learning.

Indicator	Description	Review Team Score	AdvancED Network Average
1.1	The school engages in a systematic, inclusive, and comprehensive process to review, revise, and communicate a school purpose for student success.	2.00	2.75
1.2	The school's leadership and staff commit to a culture that is based on shared values and beliefs about teaching and learning and supports challenging, equitable educational programs and learning experiences for all students that include achievement of learning, thinking, and life skills.	3.50	3.04
1.3	The school's leadership implements a continuous improvement process that provides clear direction for improving conditions that support student learning.	2.00	2.61

Standard 2 - Governance and Leadership

The school operates under governance and leadership that promote and support student performance and school effectiveness.

Indicator	Description	Review Team Score	AdvancED Network Average
2.1	The governing body establishes policies and supports practices that ensure effective administration of the school.	4.00	2.98
2.2	The governing body operates responsibly and functions effectively.	3.00	2.96
2.3	The governing body ensures that the school leadership has the autonomy to meet goals for achievement and instruction and to manage day-to-day operations effectively.	4.00	3.18
2.4	Leadership and staff foster a culture consistent with the school's purpose and direction.	4.00	3.13
2.5	Leadership engages stakeholders effectively in support of the school's purpose and direction.	3.00	2.82
2.6	Leadership and staff supervision and evaluation processes result in improved professional practice and student success.	3.00	2.82

Stakeholder Feedback Diagnostic

Stakeholder Feedback is the third of three primary areas of evaluation in AdvancED's Performance Accreditation model. The AdvancED surveys (student, parent, and teacher) are directly correlated to the AdvancED Standards and indicators. They provide not only direct information about stakeholder satisfaction but also become a source of data for triangulation by the External Review Team as it evaluates indicators.

Institutions are asked to collect and analyze stakeholder feedback data, then submit the data and the analyses to the External Review Team for review. The External Review Team evaluates the quality of the administration of the surveys by institution, survey results, and the degree to which the institution analyzed and acted on the results.

Evaluative Criteria	Review Team Score	AdvancED Network Average
Questionnaire Administration	4.00	3.38
Stakeholder Feedback Results and Analysis	4.00	3.08

Findings

Improvement Priority

Create and implement a plan to provide regular and consistent analysis of student data by instructional teams (PLC's). Use data to design, implement, and evaluate continuous improvement plans (SIP) to improve student learning, instruction, the effectiveness of programs, and organizational conditions.

(Indicators 5.2)

Evidence and Rationale

Reviews of the assessment calendars and plans indicated a vast amount of data from various assessments. Opportunities for professional development and PLC team collaboration (re: data analysis and next steps instructional planning) appear to be lacking. Staff member surveys indicated a need for improvement on Indicators 5.3 and 5.4, related to professional development and processes of data analysis and application. It is recommended to develop a plan to use student data to determine long range instructional plans as well as to drive daily instruction. This process should include students accessing their own learning data to set personal academic goals on a regular basis.

Other related indicators: 5.3, 5.4, 5.5

Opportunity for Improvement

Develop and implement a School Improvement Plan which provides clear direction for improving conditions that support student learning.

(Indicators 1.3)

Evidence and Rationale

Evidence and staff members interviews indicate the school is currently operating under an ineffectual five year Strategic Plan. This plan was developed before the creation of the Center for Deafness and Hearing Loss

(CDHL) and is no longer aligned to the mission of the Washington School for the Deaf. A school improvement plan which addresses WSD's current philosophy and includes an action plan with measurable objectives, strategies, activities, resources, and timelines will positively support student learning. This recommendation relates to indicators 3.5 and 5.4

Powerful Practice

Staff members overwhelmingly indicated they feel supported by their school administration in their shared values and beliefs regarding the school's mission and its implementation.

(Indicators 1.2)

Evidence and Rationale

It was clearly evident during formal and informal interviews, and accreditation documentation that staff members are thriving under a positive work environment and the students, in turn, benefit. By being held to high expectations, students are motivated to realize their full potential. The school leadership has developed several avenues for staff members to express any concerns. The school culture allows all stakeholders to feel supported and focus on the student's learning needs.

The following indicators are related to this finding: 2.4, 4.2

Resource Utilization

The use and distribution of resources must be aligned and supportive of the needs of an institution and the students served. Institutions must ensure that resources are aligned with the stated mission and are distributed equitably so that the needs of students are adequately and effectively addressed. The utilization of resources includes an examination of the allocation and use of resources, the equity of resource distribution to need, the ability of the institution to ensure appropriate levels of funding and sustainability of resources, as well as evidence of long-range capital and resource planning effectiveness.

Institutions, regardless of their size, need access to sufficient resources and systems of support to be able to engage in sustained and meaningful efforts that result in a continuous improvement cycle. Indeed, a study conducted by the Southwest Educational Development Laboratory (Pan, D., Rudo, Z., Schneider, C., & Smith-Hansen, L., 2003) "demonstrated a strong relationship between resources and student success... both the level of resources and their explicit allocation seem to affect educational outcomes."

AdvancED has found through its own evaluation of best practices in the more than 32,000 institutions in the AdvancED Network that a successful institution has sufficient human, material, and fiscal resources to implement a curriculum that enables students to achieve expectations for student learning, meets special needs, and complies with applicable regulations. The institution employs and allocates staff members who are well qualified for their assignments. The institution provides a safe learning environment for students and staff. The institution provides ongoing learning opportunities for all staff members to improve their effectiveness and ensures compliance with applicable governmental regulations.

Standard 4 - Resources and Support Systems

The school has resources and provides services that support its purpose and direction to ensure success for all students.

Indicator	Description	Review Team Score	AdvancED Network Average
4.1	Qualified professional and support staff are sufficient in number to fulfill their roles and responsibilities necessary to support the school's purpose, direction, and the educational program.	2.00	2.95
4.2	Instructional time, material resources, and fiscal resources are sufficient to support the purpose and direction of the school.	3.00	3.00
4.3	The school maintains facilities, services, and equipment to provide a safe, clean, and healthy environment for all students and staff.	3.00	3.11
4.4	Students and school personnel use a range of media and information resources to support the school's educational programs.	1.00	2.83
4.5	The technology infrastructure supports the school's teaching, learning, and operational needs.	2.00	2.56

Indicator	Description	Review Team Score	AdvancED Network Average
4.6	The school provides support services to meet the physical, social, and emotional needs of the student population being served.	3.00	2.89
4.7	The school provides services that support the counseling, assessment, referral, educational, and career planning needs of all students.	3.00	2.80

Findings

Improvement Priority

Create formal oversight over the library and media services as students will benefit from additional exposure to printed materials, online technologies and support to instruction.

(Indicators 4.4)

Evidence and Rationale

Teacher and student feedback includes significant frustration with both poor access to technology and a lack of books and general oversight of the library. Classroom observations showed that while there is some technology available within classrooms, it is not always maximized (for example – using Smartboards as white boards). In response to both the frustration with a lack of books and lack of technology resources, a medial specialist role can support general instruction, differentiate instruction, and provide access to literacy tools. As a visual learning community, broadening digital tools will enhance instructional opportunities.

Opportunity for Improvement

Create a Technology Plan which addresses the infrastructure and technology equipment necessary to meet the teaching, learning, and operational needs at WSD.

(Indicators 4.5)

Evidence and Rationale

The Washington School for the Deaf staff member survey indicates an awareness of the need for additional technology infrastructure and instructional technology. Classroom observations indicate a lack of opportunities for students to access information or communicate their learning via informational technology. Teachers are limited in the use of technology for instructional purposes. The school website is confusing and hard to navigate. In a school that uses visual learning as a dominate modality, the opportunity to excel in digital learning must start with an adequate infrastructure.

Opportunity for Improvement

Establish a formal means to quickly and effectively communicate the need for implementing a school lockdown or other emergency protocols.

(Indicators 4.3)

Evidence and Rationale

Interviews with teachers and students indicate that while there used to be reader boards in sight of classroom staff to inform them of the need to initiate emergency protocols, these are no longer in place. It is vital that all staff members have quick access to information regarding the need to take action, in order to ensure that students and staff are safe.

Conclusion

The Washington School for the Deaf creates a safe, powerful learning community for the deaf and hard of hearing students of Washington State. This successful model starts with the school leadership. The leadership led the school through a transition to bilingual/bicultural education. Supporting this transformation, staff members have professional learning opportunities and collaborative planning to implement the model. As a residential school, a positive school culture is essential. Each student can identify their support staff members and clearly verbalized the power of attending an American Sign Language (ASL)/English school. School tour, interviews, and observations revealed not only the well-maintained building, but more importantly the safe culture of the campus. The commitment to collaboration, school vision and ASL/English focus, help to create a dynamic learning community to advance student learning and performance.

The school has just completed a five year strategic plan. Going forward, the school's self-study revealed that initiating an annual school improvement planning process would provide a more nimble approach to improving student learning. The school produces volumes of data about their school and students demographics. This data gets lost in translation due to its volume. Through using a school improvement planning model, including professional learning communities that regular data analysis which leads to modification of instruction, the feedback loop should increase student learning.

The Improvement Priorities outlined in this report will provide a roadmap for growth and improvement. Washington School for the Deaf has a long history, dating back to the 1880's, many students are children and grandchildren of students and staff members that have attended the school. With this rich heritage and tradition of the past, they are also staged to springboard into the future. With the rise of the digital age, the deaf community deeply depend of digital tools for accessing information and communication. Through their self-study and the External Team's review, it was evident that creating a powerful digital learning community is their biggest challenge and opportunity to meet student learning needs in the 21st Century.

The school demonstrated their ability to transform into a bilingual school, this stages them with the capacity to add the digital language. To accomplish this goal, the team noted three elements for planning: improving the technology infrastructure, transform the "old school" library into a dynamic media center and developing training on how to use digital tools to improve learning. With this as a goal, the Washington School for the Deaf can become a leader in best practices in learning for the future needs of this generation.

Improvement Priorities

The institution should use the findings from this review to guide the continuous improvement process. The institution must address the Improvement Priorities listed below:

- Create and implement a plan to provide regular and consistent analysis of student data by instructional teams (PLC's). Use data to design, implement, and evaluate continuous improvement plans (SIP) to

improve student learning, instruction, the effectiveness of programs, and organizational conditions.

- Create formal oversight over the library and media services as students will benefit from additional exposure to printed materials, online technologies and support to instruction.

Accreditation Recommendation

Index of Education Quality

The Index of Education Quality (IEQ™) provides a holistic measure of overall performance based on a comprehensive set of indicators and evaluative criteria. A formative tool for improvement, it identifies areas of success as well as areas in need of focus.

The IEQ™ comprises three domains: 1) the impact of teaching and learning on student performance; 2) the leadership capacity to govern; and 3) the use of resources and data to support and optimize learning.

The overall and domain scores can range from 100-400. The domain scores are derived from: the AdvancED Standards and indicators ratings; results of the Analysis of Student Performance; and data from Stakeholder Feedback Surveys (students, parents, and staff).

	External Review IEQ Score	AdvancED Network Average
Overall Score	283.97	282.79
Teaching and Learning Impact	272.62	274.14
Leadership Capacity	331.82	296.08
Resource Utilization	242.86	286.32

The IEQ™ results include information about how the institution is performing compared to expected criteria as well as to other institutions in the AdvancED Network. The institution should use the information in this report, including the corresponding performance rubrics, to identify specific areas of improvement.

Consequently, the External Review Team recommends to the AdvancED Accreditation Commission that the institution earn the distinction of accreditation for a five-year term. AdvancED will review the results of the External Review to make a final determination including the appropriate next steps for the institution in response to these findings.

Addenda

Team Roster

Member	Brief Biography
Ms. Catherine Camp	<p>Catherine started working with AdvancEd in 2014 and has led external review teams for comprehensive high schools, ALE programs, private schools and K-12 schools. She holds a MAed from Antioch University in Curriculum and Development and a Principal's certificate from Western Washington University. She retired as the Principal for Commodore Options School on Bainbridge Island in 2012. Commodore is a multi-plex school that includes Eagle Harbor High School, Odyssey K-8 Multi-age Program and Mosaic Home Partnership. Her leadership experience ranges from kindergarten through high school. She has worked with schools to design best practice classrooms, individualized learning systems, digital learning opportunities as well as service learning and mentorships. As a past President of WALA, Catherine helped to craft the ALE WACs. With 40+ years working with youth, she brings a wealth of knowledge and experience about powerful learning community.</p>
Dr. Laurie Harrison	<p>For the past 9 years, Laurie has been an administrator over the Deaf/HH Program at Northwest Regional ESD in Hillsboro, Oregon. In this position she supervises teachers of the deaf/hard of hearing as well as ASL Interpreters and ASL Assistants. In 2007 Laurie obtained her doctorate (Ed.D) in Educational Leadership from George Fox University. Prior to her current position, Laurie briefly coordinated services for Early Intervention and Early Childhood Special Education, and was a Special Education Director for the Vernonia School District from 2000-2004.</p> <p>Prior to working in administration, Laurie taught deaf/hh children at Northwest Regional Education Service District for two years, and had taught emotionally/behaviorally disordered Deaf/HH children in a residential setting for several years prior to that, at the Centerview Therapeutic School in Northbrook, Illinois.</p>
Mr. Joel Hauge	<p>Teaching experience:</p> <ul style="list-style-type: none"> -22 years of teaching in grades 3-8, both in the US (Evergreen School District, Vancouver, WA) and overseas (Norway and Japan). -15 years experience as an elementary school principal/associate principal in the Evergreen School District. -Currently serving as an instructor/supervisor for administrative interns in the Educational Administration program at Washington State University/Vancouver.
Jacki Wolf	<p>B.A. Liberal Studies/Elementary Education – San Francisco State University M.Ed Deaf Education – Lewis and Clark College Oregon School for the Deaf - 32 years (retired 7/2014) Elementary Education Middle School – Language, Math, Social Studies Physical Education – K - 12 Curriculum and Assessment Specialist Athletic Director Planned Professional Learning for staff Educators Effectiveness Design Team (Teacher and Administrator evaluations) Materials Adoption Evaluator and Facilitator for the Oregon Department of Education – 8 years Involved in 2 NAAS/AdvancED accreditations at OSD Chairperson for CEASD (Conference for Educational Administrators of Schools & Programs for the Deaf) accreditation 2009</p>

Next Steps

1. Review and discuss the findings from this report with stakeholders.
2. Ensure that plans are in place to embed and sustain the strengths noted in the Powerful Practices section to maximize their impact on the institution.
3. Consider the Opportunities for Improvement identified throughout the report that are provided by the team in the spirit of continuous improvement and the institution's commitment to improving its capacity to improve student learning.
4. Develop action plans to address the Improvement Priorities identified by the team. Include methods for monitoring progress toward addressing the Improvement Priorities.
5. Use the report to guide and strengthen the institution's efforts to improve student performance and system effectiveness.
6. Following the External Review, submit the Accreditation Progress Report detailing progress made toward addressing the Improvement Priorities. Institutions are required to respond to all Improvement Priorities. The report will be reviewed at the appropriate state, national, and/or international levels to monitor and ensure that the system has implemented the necessary actions to address the Improvement Priorities. The accreditation status will be reviewed and acted upon based on the responses to the Improvement Priorities and the resulting improvement.
7. Continue to meet the AdvancED Standards, submit required reports, engage in continuous improvement, and document results.

About AdvancED

AdvancED is the world leader in providing improvement and accreditation services to education providers of all types in their pursuit of excellence in serving students. AdvancED serves as a trusted partner to more than 32,000 public and private schools and school systems – enrolling more than 20 million students - across the United States and 70 countries.

In 2006, the North Central Association Commission on Accreditation and School Improvement (NCA CASI), the Southern Association of Colleges and Schools Council on Accreditation and School Improvement (SACS CASI), both founded in 1895, and the National Study of School Evaluation (NSSE) came together to form AdvancED: one strong, unified organization dedicated to education quality. In 2011, the Northwest Accreditation Commission (NWAC) that was founded in 1917 became part of AdvancED.

Today, NCA CASI, NWAC and SACS CASI serve as accreditation divisions of AdvancED. The Accreditation Divisions of AdvancED share research-based quality standards that cross school system, state, regional, national, and international boundaries. Accompanying these standards is a unified and consistent process designed to engage educational institutions in continuous improvement.

References

- Alwin, L. (2002). The will and the way of data use. *School Administrator*, 59(11), 11.
- Baumert, J., Kunter, M., Blum, W., Brunner, M., Voxx, T., Jordan, A., Klusmann, U., Krauss, S., Nuebrand, M., & Tsai, Y. (2010). Teachers' mathematical knowledge, cognitive activation in the classroom, and student progress. *American Educational Research Journal*, 47(1), 133-180.
- Chartered Institute of Personnel and Development. (2012). *Shared purpose: the golden thread?* London: CIPD.
- Colbert, J., Brown, R., Choi, S., & Thomas, S. (2008). An investigation of the impacts of teacher-driven professional development. *Teacher Education Quarterly*, 35(2), 134-154.
- Conley, D.T. (2007). *Redefining college readiness (Vol. 3)*. Eugene, OR: Educational Policy Improvement Center.
- Datnow, A., Park, V., & Wohlstetter, P. (2007). *Achieving with data: How high-performing school systems use data to improve instruction for elementary students*. Los Angeles, CA: Center on Educational Governance, USC.
- Dembosky, J., Pane, J., Barney, H., & Christina, R. (2005). *Data driven decision making in Southwestern Pennsylvania school districts*. Working paper. Santa Monica, CA: RAND.
- Ding, C. & Sherman, H. (2006). Teaching effectiveness and student achievement: Examining the relationship. *Educational Research Quarterly*, 29 (4), 40-51.
- Doyle, D. P. (2003). Data-driven decision making: Is it the mantra of the month or does it have staying power? *T.H.E. Journal*, 30(10), 19-21.
- Feuerstein, A., & Opfer, V. D. (1998). School board chairmen and school superintendents: An analysis of perceptions concerning special interest groups and educational governance. *Journal of School Leadership*, 8, 373-398.
- Fink, D., & Brayman, C. (2006). School leadership succession and the challenges of change. *Educational Administration Quarterly*, 42 (62), 61-89.
- Greene, K. (1992). Models of school-board policy-making. *Educational Administration Quarterly*, 28 (2), 220-236.
- Horng, E., Klasik, D., & Loeb, S. (2010). Principal time-use and school effectiveness. *American Journal of Education* 116, (4) 492-523.
- Lafee, S. (2002). Data-driven districts. *School Administrator*, 59(11), 6-7, 9-10, 12, 14-15.
- Leithwood, K., & Sun, J. (2012). The Nature and effects of transformational school leadership: A meta-analytic review of unpublished research. *Educational Administration Quarterly*, 48 (387). 388-423.
- Marks, H., Louis, K.S., & Printy, S. (2002). The capacity for organizational learning: Implications for pedagogy and student achievement. In K. Leithwood (Ed.), *Organizational learning and school improvement* (p. 239-266). Greenwich, CT: JAI Press.
- McIntire, T. (2002). The administrator's guide to data-driven decision making. *Technology and Learning*, 22(11), 18-33.
- Pan, D., Rudo, Z., Schneider, C., & Smith-Hansen, L. (2003). Examination of resource allocation in education: connecting spending to student performance. Austin, TX: SEDL.