LCAS: A WINDOW INTO PROGRAM IMPACT (CAEP STANDARDS 2 AND 4)

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GOALS OF THIS PRESENTATION

1. Outline a brief historical perspective relative to our institution and the resulting challenges.
2. Challenges presented by CAEP Standards 2 and 4 that were not issues for us under NCATE accreditation standards.
3. Definitions of learning and development per InTASC
4. An approach to meeting the challenges by including LCAS
5. Questions and discussion

HISTORICAL PERSPECTIVE

- In the NCATE era, documentation about program/candidate *positive impact on P-12 student learning* was required. Our broad solution was the *Teacher Work Sample* consisting of the following sections
  - **Contextual Factors** – the "where and who" for instruction
  - **Learning Goals** – the "what and how deeply" for instruction
  - **Plan for Assessment** – "how will you know they learned?"
  - **Design for Instruction** – organization and presentation of content
  - **Instructional Decision-Making** – the "what if…" for instruction
  - **Analysis of Student Learning** – measurement and evaluation of learning
  - **Reflection and Self-Evaluation** – "how did it go and how would you make it better next time?"

These are primarily pedagogical and do not provide "impact" data.

SUPPORT FOR STANDARD 4 - PROGRAM IMPACT? SAMPLE DATA FROM SECTIONS 6 AND 7 OF THE TWS

Spadoni College of Education Academic Year 2012-2013 Student Teaching Teacher Work Sample Data	n	Not Met	Partially Met	Fully Met
TWS Section 6: Analysis of Student Learning				
6.1 Clarity and Accuracy of Presentation	217	1%	30%	69%
6.2 Alignment with Learning Goals	216	0%	17%	83%
6.3 Interpretation of Data	217	1%	22%	77%
6.4 Evidence of Impact on Student Learning	217	1%	17%	82%
TWS Section 7: Reflection and Self Evaluation				
7.1 Interpretation of Student Learning	217	0%	22%	78%
7.2 Insights on Effective Instruction and Assessment	217	0%	31%	69%
7.3 Alignment Among Goals, Instruction and Assessment	217	0%	20%	80%
7.4 Implications for Future Teaching	217	1%	20%	78%
7.5 Implications for Professional Development	216	4%	31%	65%

- Of the 32 subsections of the TWS, only 3 (6.3, 6.4 and 7.1) may contribute to understanding student learning.
- Missing entirely is tracking of student development both in the classic sense and as learners.

PROBLEMS IN THE TRANSITION

A. Validity Within and Between Assessments

1. Content - different programs require criteria within similar sections of the TWS.
2. Candidate use of assessments to determine student learning varies and cannot be compared with those of other candidates – therefore, data reported in aggregate can not be considered to be comparable within programs and certainly not between programs.
3. We use a pre- and post-assessment that goes with the TWS, however this instrument does not include measurement of program impact per CAEP.

B. Reliability Within and Between Assessments

1. Because we use different instruments by licensure program, reliability of findings between programs is not possible.
2. Again because of different instruments and interpretations within some instruments based upon Program estimation of best practice, **inter-rater reliability between programs can not be measured.**

C. The Problem of Multiple Measures

1. Simply put, we have traditionally relied upon the TWS as the single measure to establish program impact on student learning.

HISTORICAL PERSPECTIVE

- In the CAEP era (Standard 4), EPPs must demonstrate program impact via *positive impact of completers on P-12 student learning and development classroom instruction, and schools, and the satisfaction of its completers with the relevance and effectiveness of their preparation*
  - *Best assessment practice demands triangulation of data through multiple measures.*
  - As of this date, NEITHER CCU NOR THE STATE OF SOUTH CAROLINA (NOR SURROUNDING STATES TO OUR KNOWLEDGE) HAVE AN ANSWER FOR THIS WITHOUT THE ADDITION OF RESOURCES.

HISTORICAL PERSPECTIVE (CONT.)

- CAEP allows some (albeit limited) time for providers to create the culture and body of evidence, including appropriate assessment instrumentation and processes, shared responsibility and accountability, and mutual trust and respect.
  - Spring 2016 is the first expected data set.
- The collection of evidence must be both comprehensive and intentional as it addresses multiple aspects of the program.

CAEP STANDARDS THAT APPLY
(THE CHALLENGES WE FACE)

- 2.1 Partners co-construct mutually beneficial P-12 school and community arrangements, *including technology-based collaborations*, for clinical preparation and *share responsibility for continuous improvements of candidate preparation*. Partnerships for clinical preparation can follow a range of forms, participants and functions. They establish mutually agreeable expectations for candidate entry, preparation, and exit; ensure that theory and practice are linked; maintain coherence across clinical and academic components of preparation and; share accountability for candidate outcomes.

CAEP STANDARDS THAT APPLY
(THE CHALLENGES WE FACE)

- 2.3 The EPP works with partners to design *clinical experiences of sufficient depth, breadth, diversity, coherence, and duration to ensure that candidates demonstrate their developing effectiveness and positive impact on all students' learning and development.* Clinical experiences , including technology-enhanced learning opportunities, are structured to have multiple performance-based assessments at key points within the program to demonstrate candidates' development of the knowledge, skills, and professional dispositions, as delineated in standard 1, that are associated with a positive impact on the learning and development of P-12 students.

CAEP STANDARDS THAT APPLY
(THE CHALLENGES WE FACE)

- 4.3 The EPP demonstrates, using measures that result in valid and reliable data and including employment milestones such as promotion and retention, that employers are satisfied with the completers' preparation for their assigned responsibilities in working with P-12 students.

- 4.4 The EPP demonstrates, using measures that result in valid and reliable data, that program completers perceive their preparation as relevant to the responsibilities they confront on the job, and that the preparation was effective.

SOME KEY UNDERSTANDINGS: RELATIONSHIP TO InTASC STANDARDS

---Because best practice must have an informed contextual foundation from which to grow---

CAEP Standard 1: Content and Pedagogical Knowledge

1.1 Candidates demonstrate an understanding of the 10 InTASC standards at the appropriate progression level(s)[1] in the following categories: the learner and learning; content; instructional practice; and professional responsibility.

Source - http://www.caepnet.org/standards/standard-1

Some Key Understandings: Relationship to InTASC Standards

The Learner and Learning

InTASC Standard #1: Learner Development.

The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

InTASC Standard #2: Learning Differences.
The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

InTASC Standard #3: Learning Environments.
The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self motivation.

Requires specific knowledge about **learners development that is updated on a regular basis** to provide accurate immediate and trend data.

Requires measurement of characteristics well beyond simple assessment of student achievement scores.

Teachers must maintain a deep knowledge of "who" the student is and conscientiously use these data to maximize both student learning (evidenced by both achievement and behaviors) and development (evidenced according to the list in InTASC Standard #1)

Some Key Understandings: Relationship to InTASC Standards

Content

InTASC Standard #4: Content Knowledge.

The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make the discipline accessible and meaningful for learners to assure mastery of the content.

InTASC Standard #5: Application of Content.

The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

Teachers need to be deeply and continually informed about the student(s) s/he is teaching and to **have instructional options that predict success for the student** as described here.

This competency presupposes teacher knowledge about what makes her/his students "tick" and then **how to connect with the student**.

Some Key Understandings: Relationship to InTASC Standards

Instructional Practice

InTASC Standard #6: Assessment.

The teacher understands and **uses multiple methods of assessment** to engage learners in their own growth, to monitor learner progress, **and to guide the teacher's and learner's decision making.**

InTASC Standard #7: Planning for Instruction.

The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

InTASC Standard #8: Instructional Strategies.

The **teacher understands and uses a variety of instructional strategies** to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

An implication here is that the teacher deeply knows the student.

Understanding of development, instructional needs, and personal learning proclivities of each student are vital to effectively meeting these standards.

Some Key Understandings: Relationship to InTASC Standards

Professional Responsibility

InTASC Standard #9: Professional Learning and Ethical Practice.

The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.

InTASC Standard #10: Leadership and Collaboration.

The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

Immediate and trend data about student learning and development is a challenge that has gone largely unmet in our current approach to data gathering about students.

In order to meet these two standards, the teacher needs an information stream that keeps her informed about student learning AND development so that developmentally appropriate decisions may be made.

IMPLICATIONS OF InTASC TO CAEP

- PROVIDER RESPONSIBILITIES
  - CAEP 1.2 EPPs ensure that candidates use research and evidence to develop an understanding of the teaching profession and use both to measure their P-12 students' progress and their own professional practice.
  - CAEP 1.3 EPPs ensure that candidates apply content and pedagogical knowledge as reflected in outcome assessments in response to standards of Specialized Professional Associations (SPA), the National Board for Professional Teaching Standards (NBPTS), states, or other accrediting bodies (e.g., National Association of Schools of Music – NASM).

These responsibilities demand that EPPs not only ensure that they instruct their candidates but that they track results of their candidates' work to demonstrate program impact.

IMPLICATIONS OF InTASC TO CAEP (CONT.)

- PROVIDER RESPONSIBILITIES
  - CAEP 1.4 EPPs ensure that candidates demonstrate skills and commitment that afford all P-12 students access to rigorous college- and career-ready standards (e.g., Next Generation Science Standards, National Career Readiness Certificate, Common Core State Standards).
  - CAEP 1.5 EPPs ensure that candidates model and apply technology standards as they design, implement and assess learning experiences to engage students and improve learning; and enrich professional practice.

These responsibilities demand that EPPs not only ensure that they instruct their candidates but that they track results of their candidates' work to demonstrate program impact.

What is LCAS?
Learning Curve Achievement Systems

Designed with classroom teachers in mind, LCAS has developed, refined, rigorously tested, and integrated

- Original diagnostic instrumentation,
- Prescriptive processes, and
- Data analysis and communication tools

to form the Learning Curve Achievement System ® . This system, in combination with expert consulting and support services for teachers and administrators in both PK-12 and Institutions of Higher Education helps teachers increase student learning and development. The tools for teachers provide in-depth information at the individual, small group, and whole class levels about student development and learning preferences. Tools available to teachers and administrators provide information to facilitate developmentally responsive instruction and assessment which results in increased student learning and development.

www.increaseachievement.com/background.php

POTENTIAL SOLUTIONS TO OUR CHALLENGES

CHALLENGES PREVIOUSLY STATED

- **Data collection demonstrating program/candidate *positive impact on P-12 student learning and development triangulated through multiple measures.***

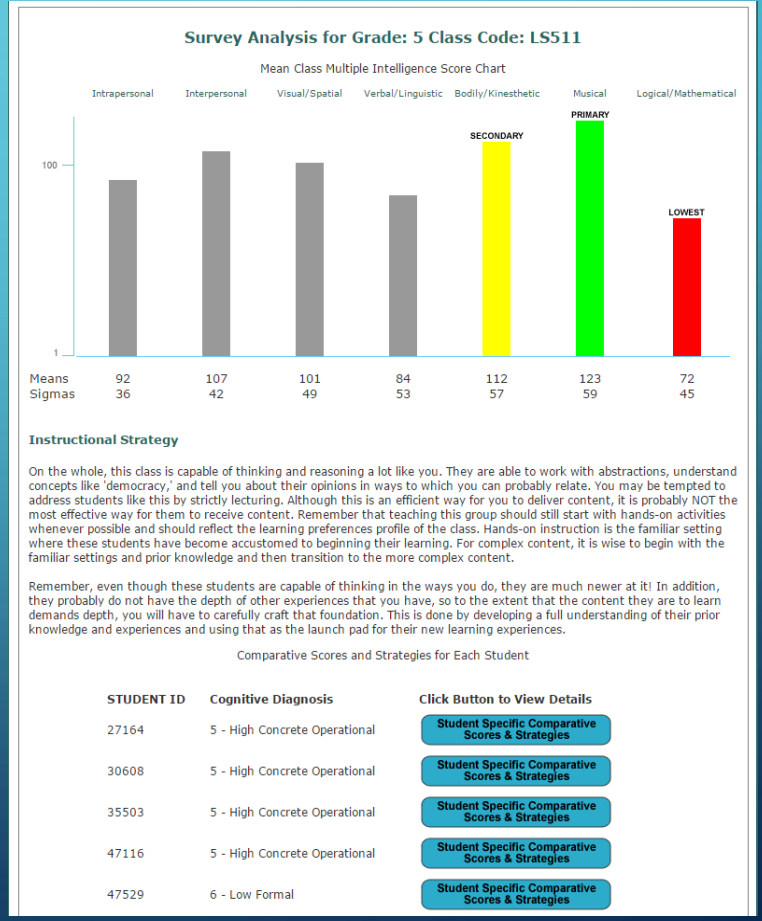
Extant Measures Include:

Teacher Work Sample

(other measures that vary by program)

PROPOSED SOLUTION (INCLUDING LCAS)

- **Accomplished through combining extant measures with developmental profiling and achievement data reporting and tracking available through LCAS.**



Survey Analysis for Grade: 5 Class Code: LS511

Mean Class Multiple Intelligence Score Chart

	Intrapersonal	Interpersonal	Visual/Spatial	Verbal/Linguistic	Bodily/Kinesthetic	Musical	Logical/Mathematical
Means	92	107	101	84	112	123	72
Sigmas	36	42	49	53	57	59	45

Instructional Strategy

On the whole, this class is capable of thinking and reasoning a lot like you. They are able to work with abstractions, understand concepts like 'democracy,' and tell you about their opinions in ways to which you can probably relate. You may be tempted to address students like this by strictly lecturing. Although this is an efficient way for you to deliver content, it is probably NOT the most effective way for them to receive content. Remember that teaching this group should still start with hands-on activities whenever possible and should reflect the learning preferences profile of the class. Hands-on instruction is the familiar setting where these students have become accustomed to beginning their learning. For complex content, it is wise to begin with the familiar settings and prior knowledge and then transition to the more complex content.

Remember, even though these students are capable of thinking in the ways you do, they are much newer at it! In addition, they probably do not have the depth of other experiences that you have, so to the extent that the content they are to learn demands depth, you will have to carefully craft that foundation. This is done by developing a full understanding of their prior knowledge and experiences and using that as the launch pad for their new learning experiences.

Comparative Scores and Strategies for Each Student

STUDENT ID	Cognitive Diagnosis	Click Button to View Details
27164	5 - High Concrete Operational	Student Specific Comparative Scores & Strategies
30608	5 - High Concrete Operational	Student Specific Comparative Scores & Strategies
35503	5 - High Concrete Operational	Student Specific Comparative Scores & Strategies
47116	5 - High Concrete Operational	Student Specific Comparative Scores & Strategies
47529	6 - Low Formal	Student Specific Comparative Scores & Strategies

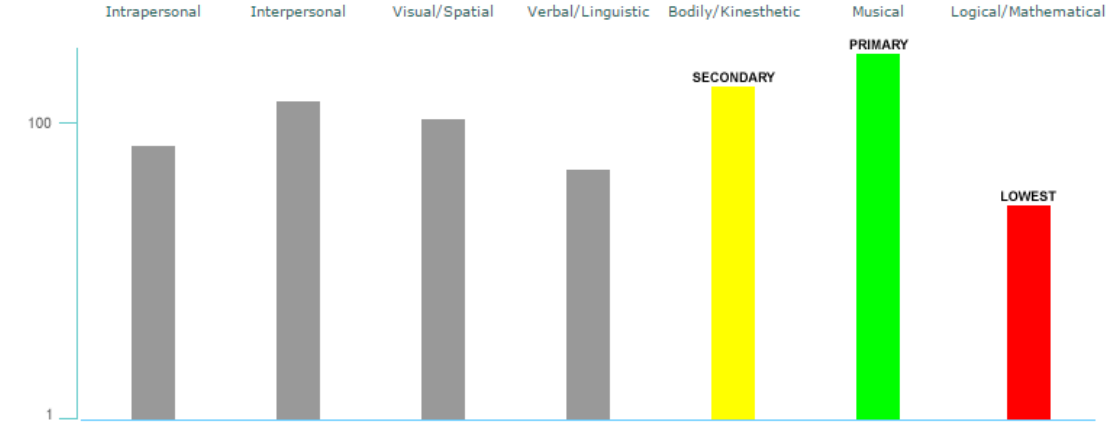
LCAS provides a variety of levels of profile information – from whole school all the way to individual student.

The next 3 slides show the data we get at the classroom and individual levels.

LCAS is currently working to include UDI into the reports.

Survey Analysis for Grade: 5 Class Code: LS511

Mean Class Multiple Intelligence Score Chart



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Click on the student level link to see student-specific information

Learning Preferences Profile for the class

Universal Design for Instruction:

Recommended instructional approaches and sample lesson plans predictive of success for this particular profile that consider multiple data points within the class profile. *The same process is employed with individual profiles* (see below).

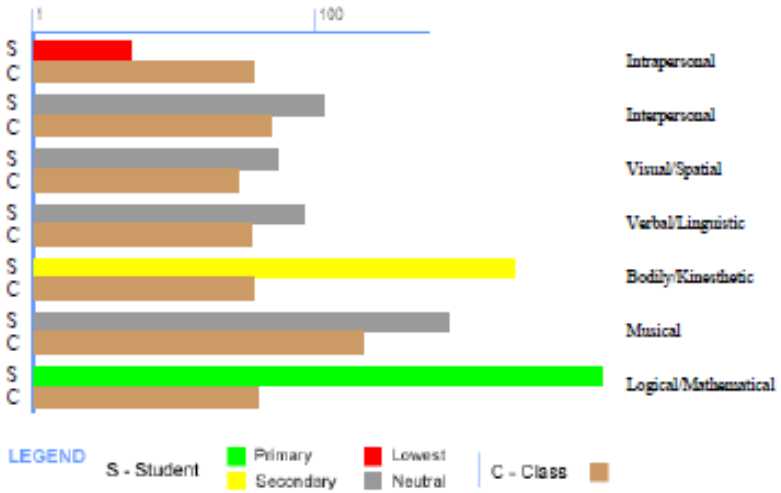
Access to individual student achievement and developmental instantaneous and trend data.

Student ID 540010041046
Grade: 12
Age: 17
Gender: M
Ethnicity: H
Special:
Cognitive Diagnosis: 6 - Low Formal

Date Survey Last Taken: Sep 12, 2014

Problem Response: magnetic field

Comparative Student Score vs Class Mean Scores



Resulting report provides student-specific information and recommendations about best instructional practice for that student. Analysis of the comparative chart Provides the teacher with information About how this student compares to others In either the whole class, or a selected group

Individual Instructional Strategy and Implications

Perhaps the most important thing to remember about this individual is that s/he thinks in the same ways you do. Although prior knowledge and experiences are not as complex and broad as yours, this student probably wants to be 'talked to' and not 'talked at.' Working with this individual should start as conversation allowing the student to explain her/his understanding about the content in question. During the explanation, the student should be encouraged to talk about why s/he believes what s/he says. Your task is to hear the logic behind the understanding and, where there are errors in thinking, point them out. Then allow the student time to reason with the new knowledge and to rebuild understanding.

Related Standards Test Scores: Measures of Academic Progress

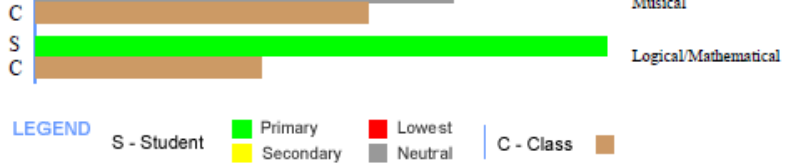
Math

Date/Season	Score
Spring 2009	237
Fall 2009	240
Winter 2009	235
Spring 2010	238

Reading

Date/Season	Score
Spring 2009	209

Historical/trend information about academic performance on desired assessments is presented next



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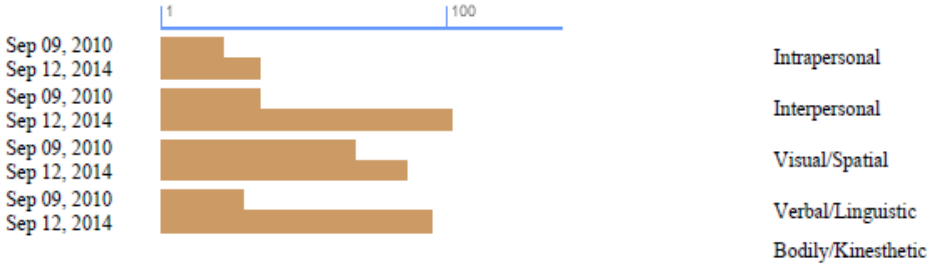
Student Diagnostic Instrument Survey Trend



Finally, developmental profile trends are presented.

POTENTIAL SOLUTIONS TO OUR CHALLENGES

CHALLENGES PREVIOUSLY STATED	PROPOSED SOLUTION (INCLUDING LCAS)
• **Ensure that theory and practice are linked;**	• **Lesson planning templates and instructional strategy recommendations provide candidates with theory- and data-driven pedagogical guidance.** • **UDI components being developed.**
• **Maintain coherence across clinical and academic components of preparation**	• **Facilitates candidate reflectivity about theory into practice through data.** • **Single interface for candidate evaluations and Employer and Graduate Satisfaction forms (Std. 4)**

Through a series of accounts, Providers, School Administrators, and Candidates all have immediate access to student learning and development data. Within these accounts, information is shared for building-level and Provider-level use while protecting student, candidate, and cooperating teacher confidentiality.

Theory-driven recommendations about instructional strategy choices are offered at the individual, teacher-selected group, and whole class levels. A UDI component is currently being added.

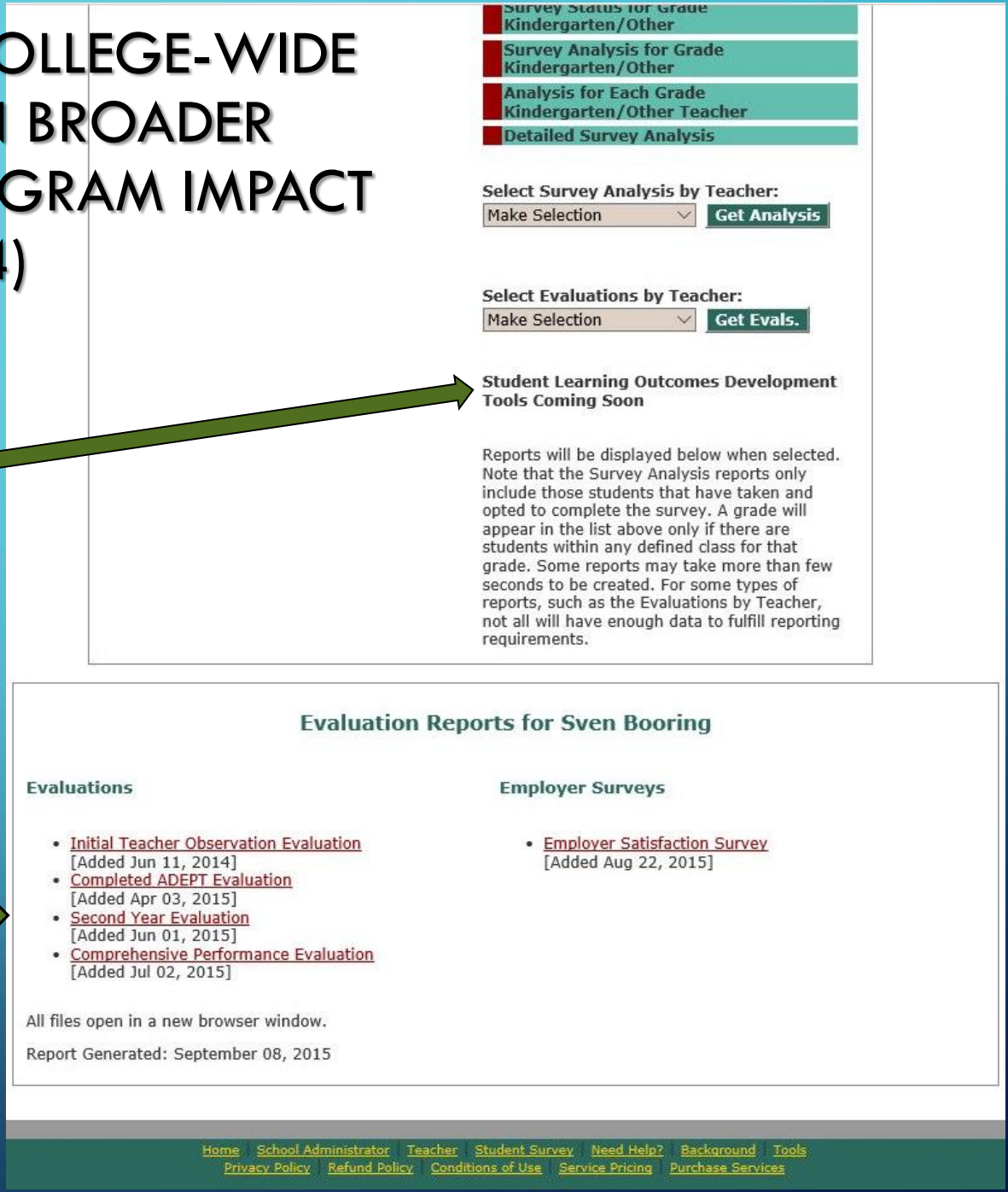
SINGLE INTERFACE FOR COLLEGE-WIDE FORMS USED TO GAIN BROADER UNDERSTANDING OF PROGRAM IMPACT (STANDARD 4)

SLO Development Tool will facilitate communication and professional collaboration from EPP to LEA

EPP defines forms to be used here. Data are stored in EPP account and Candidate has ability to view evaluations.

Completer Satisfaction Survey coming soon.

ADEPT Evaluation form coming soon



POTENTIAL SOLUTIONS TO OUR CHALLENGES

CHALLENGES PREVIOUSLY STATED	PROPOSED SOLUTION (INCLUDING LCAS)
• Share accountability for candidate outcomes	• Through administrative-level accounts, candidate performance relative to impact on student learning and development may be tracked, analyzed, and shared. LCAS also provides administrative accounts to LEA building-level administrators with similar access to the effects and progress of pre-service teachers active in their building.
• Employers are satisfied with the completers' preparation for their assigned responsibilities in working with P-12 students	• Additional data sharing measures are both available and under construction.
• Difficulty following completers into their induction years of employment.	• Because the candidate account stays active for several years, the mechanism is in place to continue the relationship and track satisfaction into and beyond induction.

SELECTED BENEFITS TO EPP CANDIDATES, FACULTY AND ADMINISTRATION

- Candidates, Classroom Teachers and School Administrators
  - Real-time feedback on their instructional impact in the classroom.
  - Instructionally correlated diagnostic information (clear data to inform instruction)
  - SCOE candidates use of LCAS will serve as the platform upon which they can build understanding and connect their learning base with their impact on P-12 learning.
  - Data from LCAS provides predictive platform for creation and evaluation of SLOs
- EPP Faculty and Administration
  - Obtain detailed reports concerning candidates' impact on P-12 students' learning and development.
  - Facilitation of data sharing with LEAs
  - Facilitation of tracking Candidates into the induction year of practice
  - Preparation of candidates to collect and analyze data in order to write predictive SLOs

QUESTIONS AND COMMENTS

- LCAS Demonstration site access
  - http://development.increaseachievement.com

- Thanks for your time and attention and best wishes to you on your accreditation journey!

REFERENCES

George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon.