The simulation-based learning tool, simSchool, can collect qualitative and quantitative data for AAQEP Standards.
Tech Matters

Education consulting company specializing in custom technology integration

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*Introductions*
To show the value of simSchool data to accreditation, we will:

* Share a little history and overview of simSchool
* Focus on simSchool’s potential to drive change and report evidence of improvement at the completer and program level
* Tech Matters and SPSUTeach
  * Acting Assessment Coordinators
  * Title II Regulation Changes
  * EPPs transitioning from NCATE/TEAC to CAEP
    * Challenged to satisfy new standards

* How We Discovered simSchool
*Tech Matters and SPSU Teach*

* UTeach Program had its own reporting requirements

* About UTeach
  * New streamlined education prep program
  * Produce more STEM teachers

*How We Discovered simSchool*
SPSUTeach and simSchool

* simSchool enabled SPSUTeach to provide more relevant teaching experience
* simSchool provided data needed for UTeach
*Validated Quantified Outcomes

**Predictable Results**

- **10-12 Hrs**
  - Major shift in belief about the ability to impact every student’s learning,
  - Increase in knowledge of differentiation of instruction

- **4-6 Hrs**
  - Increased understanding of classroom management & individual student needs

- **2 Hrs**
  - Increased belief in the value of technology and games in the classroom

**Retention**

80% at 3 years

Studies in Texas found that teachers who used simSchool in teacher education and praxis remained in education at a significantly higher rate than teachers who did not use simSchool:

- 50% retention at 3 yrs
- vs-
- 80% for simSchool users
*Missouri Baptist University - Research

* MBU challenged to meet NCATE/CAEP standards for diversity

* Dr. David Collum
  * Assessment and Accreditation Data Coordinator

* Researched simSchool’s ability to bridge the gap in providing diverse field experiences

* Tech Matters worked with Dr. Collum for 5 years on multi-university studies (15 universities)
* simSchool increased pre-service teachers’ understanding of the educational needs of diverse learners across multiple universities
* Research supported simSchool having the potential to train pre-service teachers in the understanding of different types of diverse students
* simSchool Exceeds Expectations
  * Providing diverse field experiences
  * Providing data and evidence to satisfy new completer performance and continuous program improvements

* What We Discovered
* How can simSchool improve EPP’s ability to meet AAQEP Accreditation Standards?
  * simSchool experiences generate valuable data
    * Course level
    * Curriculum level
    * Cohort Level
    * Program level
  * Data can be exported to Watermark and most other LMSs as accreditation evidence

* simSchool and AAQEP
“Mark said he thought virtual field work is a great fit for AAQEP’s standards 1 and 2”
* simSchool is:
  * A flexible web-based virtual classroom
  * Operating at scale
  * Created by educators for educators
  * A safe space to explore teaching strategies
  * Innovative technology validated by 10 years of research and development

* simSchool from 30,000 Feet
* simSchool is:

* Affordable
  * Flexible licensing
  * Cost/Seat as low as $30/yr. for individual license

Accessible

* 24/7 365 days a year
* Internet connected device

* simSchool - Affordable and Accessible
Now We’ll Zoom In
What do teachers do in simSchool?

- Experiment with new strategies
- Gain insight into diverse student needs
* What do teachers do in simSchool?
  * Observe whole class performance
  * Explore the impact of their teaching on student outcomes
* What do teachers do in simSchool?
  * Experiment with varied classroom configurations
What do teachers do in simSchool?

- Experiment with different regions and local situations
Let’s watch a simulation “Teach Aloud”

* Created for Radford University as part of a DOE grant
* Focused on one 2nd grade student with math anxiety
* Designed for teachers to test their knowledge of new concepts presented in an instructional video
Kylee Video

simSchool in Action
*Full Classroom Simulation Data*

*simSchool Data*
Default Class Report data mapped to InTASC standards

<table>
<thead>
<tr>
<th>Description</th>
<th>Recommended Practice</th>
<th>N/A</th>
<th>Needs Attention</th>
<th>Satisfactory</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regularly assesses individual and group performance.</td>
<td>Checks the class progress tab at a regular interval.</td>
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<td>2 Uses information of differing student strengths and needs to further each learner's development.</td>
<td>Clicks on each student's profile and views their traits or progress at least once throughout the simulation.</td>
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<tr>
<td>3 Designs, adapts, and delivers instructions to address each student's diverse learning strengths and needs and creates opportunities for students to demonstrate their learning in different ways.</td>
<td>User uses a variety of tasks during the simulation.</td>
<td></td>
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</tr>
<tr>
<td>4 Makes appropriate and timely provisions for individual students with particular learning differences and needs.</td>
<td>Assigns tasks in a way that maximizes students’ performance (academic and behavioral).</td>
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</tbody>
</table>
**Equity Index - Interactions**

- **Enrolled Courses**: 2
- **Minutes Taught This Week**: 35
- **Current Overall Equity Index**: -12
- **Average Academic simProgress**: 23%
- **Average SEL simProgress**: 50%

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### Gender Identification

- **Female**: 75%
- **Male**: 20%
- **GenderDiverse**: 5%

- **Appearance**
  - **Traditional**: 60%
  - **Non-Traditional**: 18%
  - **Cultural**: 2%

- **Ethnicity by Surname**
  - **European**: 55%
  - **African**: 15%
  - **Western Asian**: 5%
  - **Eastern Asian**: 15%
  - **Central Asian**: 2%
  - **Middle Eastern**: 5%
  - **Indigenous**: 7%

- **Ethnicity by Surname**
  - **30%**
*Equity Index - Emotional Tone*

**Gender Trends**
- Female
- Male
- Gender Diverse

**Emotional Tone Insights**
Your conversation averages are located in the fourth quadrant. You speak to female students most often with a warm and friendly tone. You speak to male students most often with a warm and friendly tone. You speak to gender diverse students most often with an aloof or hostile tone.
*Equity Index - Expectations*

**Academic Expectations Insights**

You tend to assign more academically challenging tasks to male students.

Your expectations for male students increases over the course of the class.

You tend to assign less challenging tasks to female students.

Your expectations for female students declines over the course of the period.

You tend to assign tasks with below-average academic challenge to gender diverse students.

Your expectations for gender diverse students remains relatively constant.
*Time Trends - Week*

**Weekly Insight:**
- You taught in simSchool most often at the end of the week.
- You taught an average of 15-20 minutes when logged in.
- You most often used Chrome on a MacBook Pro.
- You most often logged in after 5 p.m. in the evening.

*Week: Feb. 23 - Feb. 29, 2020, Minutes Played Across All Courses*
Admin Dashboard

- **Tracked Frameworks**: 5
- **Hours Taught This Week**: 700
- **Average Overall Equity Index**: -2
- **Average Academic simPROGRESS**: 5%
- **Average SEL simPROGRESS**: 0%

### Standards Tracking

#### Time Trends

<table>
<thead>
<tr>
<th>InTASC</th>
<th>CAEP</th>
<th>AAQEP</th>
<th>Danielson</th>
<th>Our Institution TCI</th>
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</thead>
</table>

#### Academic simTrends

**Standard Description**

1b. Learners, learning theory including social, emotional, and academic dimensions, and application of learning theory

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<tr>
<th>Needs Attention</th>
<th>Satisfactory</th>
<th>Good</th>
<th>Weekly Trend</th>
<th>Monthly Trend</th>
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**AAQEP Standards Insights**

1b. Candidates in all courses declined in performance this week in Standard 1b and have had neutral progress over the last month.

2b. Candidates have shown no change in performance in this standard over the last month but are performing in the "Satisfactory" range.

1e. Candidates have consistently shown the strongest performance on this standard.
*To Summarize...
* simSchool data:
  * Are collected continuously
  * Can be aligned to AAQEP Standards
  * Can identify areas needing improvement at the candidate, completer, and program levels.
  * Inform plans for improvement with the ability to measure progress

*To Summarize...
* Tech Matters and simSchool want to work with AAQEP to develop targeted reports

* We are also exploring simSchool as a Pathway for partnerships with mentor schools
  * Collaboration with mentor teachers
  * Use in Professional Development and Teacher Induction
  * Conduit to completers

*What Next?
* simSchool - Demo Accounts

* Demo Modules include:
  * Kylee’s Math Anxiety
  * Classroom of simStudents
  * Classroom designed for Nigeria in which classroom and simStudents are different

* Experience simSchool
* For more information about simSchool or to schedule your own demonstration, contact:

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*Tech Matters Contacts
Select studies published 2017-2018 include:

* SimSchool: An opportunity for using serious gaming for training teachers in rural areas T Tyler-Wood, M Estes, R Christensen, Rural Special Education Quarterly, 2017
* Simulated Apprenticeship for Pre-Service Filipino Teachers, C Medula, World Journal on Educational Technology: Current Issues, v9 n2 p89-97 2017
* A Multi-University: Use of simSchool to Increase Pre-Service and In-Service Teachers' Understanding of the Use of Differentiated Instruction and the Understanding of Classroom Management and Behavior; V Johnston, D Collum, Society for Information Technology & Teacher Education, 2018
* The Heuristic Sandbox: Developing Teacher Know-How Through Play in simSchool
* S Hopper, Journal of Interactive Learning Research, 2018