The NSTA Learning Center: A Tool to Develop Preservice Teachers

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Michael R.L. Odell, Ph.D.
Session Overview

- Overview of the e-PD system and need to address scale and sustainability. Research Efficacy Studies
- Use of all e-PD resources with administrative reports and assessments
- Demonstration of How to Use the Learning Center for your preservice teachers
- Use of NLC as e-Text in preservice teaching

Research Efficacy Studies

- NSTA Learning Center
- Research Supporting Effectiveness

University of Texas Case Review

Southern Illinois University Case Review
Welcome to Your Personalized Learning Web Space!

Albert, you've already earned 1250 Activity Points!

You've recently earned:
- Ruby Commenter
  Post comment/questions
- Sapphire Commenter
  Post 16 more comment/questions

You're close to earning:
- Activity Progress Bar
  Your Activity Matters! It reduces your carbon footprint!

Be sure to update your profile and review your points & badges!

With these resources you can build your professional development plan, track your activities and assess your progress. You can start at “Explore Learning Opportunities” below or by creating your game plan with the PD Plan and Portfolio tool. You may also review an archived Web Seminar or a multimedia overview of the Learning Center.
94,650 Active Users*

- 18,069 Members (19.1%)
- 76,581 Non-Members (80.9%)

Active User Growth

- 73,941
- 94,450

776,757 Resources in Libraries

- 558,112
- 776,757
Feb. 2012 Collection: 8,300+ PD Resources and Opportunities Available

Do-It-Yourself Learning
- SciGuides [39]
- Science Objects [87]
- SciPacks [23]
- Archived Seminars/Podcast [1,160]

Live Online Seminars & Classes
- Web Seminars [120/yr]
- Short Courses [50+/year]

Books & Articles
- Journal Articles [5,150+]
- NSTA Press Books [280+]
- e-Books [173+]
- e-Chapters [1,020+]

In Person Experiences
- Symposia [6-10/year]
- PD Institutes [6-10/year]

http://learningcenter.nsta.org/impact
Learning Center
Selected Resources
NSTA SciPacks

3-5 Free Science Objects

10-Hour, self-directed, inquiry-based learning experience

Content Mentor
Email Support & Free Live Chat Advisors

Assessment and Certificate

Pedagogical Implications
Animation Analysis

The following animation shows a ball rolling along a track. Replay the motion a number of times and then answer the multiple-choice questions that follow. In answering those questions, feel free to replay the animation if necessary. Select the icon to launch the animation in a new window.

Figure 5.2. Ball on Complex Track
Animation
For those unable to engage with the interactive component, select this link for a long text description: Text Description

Practice

Okay, now that those mental wheels are turning, see if you can answer these questions. If you miss an answer or two or three, it might be worth your while to review the appropriate sections of this Science Object.

What is the approximate position of Point E in relationship to Point A?

- E is about 350 centimeters away from A, at an angle of about 80 degrees with respect to Line Y.
The ball has zero acceleration at ...

- Point E, because the ball is at rest at that point.
- Point B, because the direction is constant there.
- Point D, because it's slowing down at that point. It is decelerating but not accelerating.
- **Point A**, because neither its speed nor its direction are changing there.

Answer Feedback

Incorrect!

If the ball is at rest, that means the instantaneous velocity is zero. Acceleration, however, is measured by changes in velocity. An object at rest does not necessarily have zero change in velocity.

For more information:
- For help revisit the One More Definition section.
- To see how this information relates to each position in the path.
Alternate Explanation

Chances are you have already answered for yourself why things don't just keep moving forever in a straight line once they're in motion. You're probably thinking about the force of friction, and you'd be right. But let's just take a moment and go back in time, before Newton, when Newton's laws weren't around, and the concept of friction had not yet been thought of.

Well, a pretty smart guy by the name of Aristotle, along with his colleagues, had a totally different view of the world. They looked around and saw that things naturally did not keep moving in a straight line, but rather naturally came to rest. Throw a ball and it hits the ground and stops. Roll a rock and it naturally stops. Without getting into a whole lot of the philosophy of the early Greeks, let's just say that they thought the natural state of objects was to be at rest on the Earth. Made sense then, and for that matter, it still makes sense. Objects do tend to come to rest rather than keep moving. So, according to Aristotle and his contemporaries, one needed a continuous force for an object to keep moving. One model was of air collapsing on one side of a thrown object, sort of "squeezing" the object along.

Common Student Preconceptions

The concept of "force" can be difficult for students of all ages. In the primary grades, this is especially true of forces that act without touching. Observations of magnets and falling objects are examples of forces, and they can provide a foundation for later learning, but the explicit notion of invisible forces should wait until later grades.

A discussion of common student preconceptions by grade band is available in the Pedagogical Implications section of the Force and Motion SciPack.
Over 260 Simulations and Animations

NSTA SCIENCE SIMULATION: Make a Reef

NSTA SCIENCE SIMULATION: Seismic Waves

NSTA SCIENCE SIMULATION: Air Track

NSTA SCIENCE ANIMATION: Velocity & Speed

NSTA SCIENCE SIMULATION: Vertical Balloon

NSTA SCIENCE ANIMATION: Angles & Distance

Well, Darnel, Tark the Tortoise had a considerable challenge with speed and the hare. Tark had to overcome his challenge with overall average speed.
Research and Dissemination: 4 Studies


- **Experimental Design Study**: Pretest-posttest delayed-treatment/control group design with random assignment finds *significant gains in teacher content knowledge, teacher self-efficacy, and students’ learning for grades 5-8 in treatment group across two Sci Packs*. (2009-2010), n = 56

- **Descriptive Study**: Dissertation research finds *significant gains in teacher learning* for pre-posttest and pretest-final assessment. (2010). n = 85, teachers grades 3-6 from 11 different states.

Class Pre/PostAssessment Results

Indexers and Assessments

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Pre-tests</th>
<th>Post-tests</th>
<th>Avg Score Pre</th>
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<td>67 (4/20/2011)</td>
<td>81 (7/20/2011)</td>
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Totals as of 10/20/2011
How to Set Up Your Classes

- Overview of the e-PD system and need to address scale and sustainability. Research Efficacy Studies
- Use of all e-PD resources with administrative reports and assessments
- Demonstration of How to Use the Learning Center for your preservice teachers
- Use of NLC resources as e-Text in preservice teaching

The NSTA Learning Center
Research Supporting Effectiveness
University of Texas Case Review
Southern Illinois University Case Review
Completed Customized Entry Page for your students include your selected e-learning resources and collections
Welcome to your collection of professional development resources. Select from the links and tabs below to access your NSTA resources, your uploaded items, organize them into collections, and then share your collections with others.

Collections enable you to group together and organize your NSTA resources. You may also share collections with friends and colleagues.

To create a new collection:
- Click "Start a New Collection" below; fill in the brief form and click "Submit"
- Choose items from your library, our resource search page, or upload your own files to add to the collection
- NOTE: NSTA resources must first be added to your library before they can be added to a collection
- For more help view the My Library Help Guide (1.24 MB PDF) to see screen shots and step-by-step instructions

**My Collections**

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<tr>
<td>Catepillars</td>
<td>9/15/2010</td>
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<tr>
<td>4 items</td>
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<tr>
<td>Cells and Organisms</td>
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**Collections Shared With Me**

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<td>Albert Byers</td>
<td>10/5/2009</td>
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<td></td>
<td></td>
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<tr>
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<td>2/8/2011</td>
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<td>4/12/2010</td>
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<tr>
<td>9 items</td>
<td></td>
<td></td>
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<tr>
<td>Earth Sun and Moon</td>
<td>Albert Byers</td>
<td>4/2/2010</td>
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<tr>
<td>10 items</td>
<td></td>
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</tbody>
</table>
Welcome Overview

E-Learning Resources for Preservice Teachers: Welcome

Welcome to your preservice teacher course creation and management site. As a professor who teaches preservice teachers you may set-up a course and use the NSTA Learning Center’s e-learning resources as an e-textbook for your students. In the Learning Center your students will be able to access the resources, store them in a personal library, and return to them as needed throughout their career.

The Learning Center is NSTA’s e-professional development portal developed to help science educators address their needs and busy schedule. Teachers can gain access to more than 6,000 different resources and a suite of practical tools such as My Library, My PD Record, and My PD Plan and Portfolio to help them organize and document their PD growth.

Not only will your students have access to the resources but you will also have the ability to track and monitor their use through an Administrator site. For example, you will be able to see which resources your students have added to their libraries, how frequently they access NSTA SciPacks (self-paced, interactive web-based modules), percentage of completion, and the embedded assessment scores. Pre and post assessment scores are also available if you choose to have students complete them.

- So, let's begin creating your course by clicking on the "CREATE A NEW GROUP" button. You will be taken to the next page where you will be prompted to follow five easy steps to complete your task.
- If you have already created a cohort and need to "Modify" the information you entered, click on the link that says "Modify."
- For those of you who have created a cohort and would like to see the Administrator area, click on the "Admin Area" link below.
Begin creating your course by filling out the following form. If you would like to give access to your Administrator site to other individuals, please enter their e-mail addresses below.

State: Maryland

Institution: University of Maryland Baltimore Coun

Number of Users: 18

Professor: Flavio Mendez

Course: Methods for Teaching Science Elementary Students

Emails of Additional Admins: 

Separate emails with semi-colons (;)

How may we improve this process? Please tell us what you think.
E-learning Resources for Preservice Teachers


The "Welcome Heading" and "Welcome Content" is the text your students will see on your course's home page in the Learning Center. You may customize this section as appropriate.

Welcome Heading: Welcome Teacher Candidates!

Welcome Content (the content to be displayed on your group's private home page):

This is the Methods for Teaching Science to Elementary Students, fall 2012 course. Glad that you registered. For this course we will use the NSTA Learning Center as our e-textbook. Here you will find over 8,000 resources and opportunities for your professional learning. After the course ends, the resources are yours to keep for your career.

Here is the course syllabus.

Thank you,
F. Mendez.

Custom Header (optional):
You can upload your own header image which will replace the NSTA Learning Center banner at the top of all pages. The image must be a .jpg 725 pixels wide and 85 pixels tall. If you don't have an image ready, you can come back later to upload it.
Click here to upload your header image.

If you choose to use a custom header image, you can also add a link back to your website which will appear beneath your header image.

Your Website URL: __________________________ (e.g. http://www.ourwebsite.com)

Text for your link: __________________________ (e.g. Return to Our Website)

SAVE AND GO TO STEP 3
This step is optional

An NSTA collection is a "bundle" of Learning Center resources. URLs of external websites may also be part of an NSTA collection.

Adding an NSTA collection of resources can save your students time and may provide focus to your course. Choose one or more of the NSTA collections below to pre-populate your students’ Learning Center libraries. From their “My Resource Collections,” students can easily add the resources to their personal libraries.

Note: Finalize your selections of NSTA collections BEFORE your students register for the course. Any changes made to your collection selections after your students register will not be reflected on your students’ accounts.

- **Gravity and Orbits: Middle Collection**
  A collection of resources for middle school teachers on the topic of gravity and orbits.
  - 12 Items
  - View all 12 items in this collection

- **Gravity and Orbits: High Collection**
  A collection of resources for high school teachers on the topic of gravity and orbits.
  - 10 Items
  - View all 10 items in this collection

- **The Solar System: Elementary Collection**
  A collection of resources for elementary school teachers on the topic of the solar system.
  - 12 Items  Not yet reviewed
  - View all 12 items in this collection

- **The Solar System: Middle Collection**
  A collection of resources for middle school teachers on the topic of the solar system.
  - 15 Items  Not yet reviewed
  - View all 15 items in this collection

How may we improve this process? Please tell us what you think.
This step is optional

You may pre-populate your students' libraries with your own custom collections. Students can then add the individual resources from their "My Resource Collections." If you haven't created your own collection, you may skip this step for now, create a collection and return at any time to add/remove collections you want for your students.

Note: Finalize your selections of NSTA collections BEFORE your students register for the course. Any changes made to your collection selections after your students register will not be reflected on your students' accounts.

- **sample group Collection**
  - 1 Item
  - [View more about this collection](#)

- **Summer PD Resources Collection**
  - 5 Items
  - [View all 5 items in this collection](#)

- **Test Collection**
  - 2 Items
  - [View more about this collection](#)

How may we improve this process? Please tell us what you think.
This step is optional
Adding pre/post assessments to your course is one way to measure the students' change in content knowledge. You may make available any of the following assessments to your students via your Learning Center course home page. Each pre/post assessment is composed of 15-25 multiple choice questions. As an Administrator of the course, you have access to the pre/post assessments’ scores via the administrator dashboard.

Available
- Atomic Structure Assessment
- Cell Division and Differentiation Assessment
- Cell Structure and Function Assessment
- Cells and Chemical Reactions Assessment
- Chemical Reactions Assessment
- Coral Reef Ecosystems Assessment
- Earth's Changing Surface Assessment
- Earth, Sun & Moon Assessment
- Electric and Magnetic Forces Assessment
- Elements, Atoms and Molecules Assessment
- Energy Assessment
- Flow of Matter and Energy Assessment
- Force and Motion Assessment
- Gravity and Orbits Assessment
- Nature of Light Assessment
Thank You

Your course has been created and submitted to the NSTA team for approval. We will contact you with further instructions about the course and the administrator dashboard.

Take a moment to preview your course access page by selecting the link below. Once you are satisfied with the decisions you made regarding your course, you must communicate with your students about purchasing and accessing the resources. The PDF file below provides directions to students on setting up a Learning Center account and enrolling their account in your course.

To preview your course home page, visit this page: [http://learningcenter.nsta.org/KBQ2zcGaDI/](http://learningcenter.nsta.org/KBQ2zcGaDI/)

Student handout [PDF]
The NSTA Learning Center for Preservice Teachers

Thousands of interactive resources and useful tools are at your fingertips when you use the NSTA Learning Center. As a preservice teacher, you can access these resources, store them in a personal library, and return to them as needed throughout your career. You can also choose to upload your own files or notes to your library, making a secure and available collection of resources that suit your personal and professional needs.

Your professor has created a collection of specific resources for your course and placed those in your library in the Learning Center.

From the dropdown menus below select your state, institution, and course. Your subscription to the e-learning resources will be added to your cart for purchase. Fees are $100 for your subscription. Please pay with your credit card to access your personal resources in your library.

**State:** Maryland

**Institution:** University of Maryland

**Professor:** Dr. Smith

**Course:**
- Choose a Course
- Choose a Course
- Methods 101
Welcome to Your Personalized Learning Web Space!

Use these learning resources and community to design your own long-term growth plan, collaborate with others, and document your growth!

Joseph, you’ve already earned 180 Activity Points!

You’ve recently earned:
- NSTA Resource Optimizer
- Add NSTA Resources

You’re close to earning:
- Onyx Commenter
- Post 5 more comment/questions

Activity Progress Bar

Welcome Teacher Candidates!

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Here is the course syllabus.

Thank you,
F. Mendez.
Southern Illinois University Case Review

- Overview of the e-PD system and need to address scale and sustainability. Research Efficacy Studies

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- Use of NLC as e-Text in preservice teaching
SIU/C: University Case Review

- Southern Illinois University/Carbondale’s satellite campus provides an elementary education degree program for the second largest county in Illinois (Cook county Chicago being the largest). We are located near the Illinois/Wisconsin border in Grayslake, Illinois.

  Go Salukis!

Required Science Education Courses:

- EDUC 426: Introduction to Teaching Elementary School Science
Southern Illinois University Case Review

- **NCATE: ACEI-2.2** for Science: Candidates know, understand, and use fundamental concepts of physical, life, and earth/space sciences. Candidates can design and implement age-appropriate inquiry lessons to teach science, to build student understanding for personal and social applications, and to convey the nature of science.

- **IL-PTS.1** STANDARD for Content Knowledge: The competent teacher understands the central concepts, methods of inquiry, and structures of the discipline and creates learning experiences that make the content meaningful to all students.
Southern Illinois University Case Review

Problem:

- Each semester a common pre assessment on science content is administered to determine weaknesses in science concepts.
  - Too few questions per concept/content area
  - Question composition: only knowledge items

- How will I provide quality individualized professional development for my elementary education preservice teachers?
  - It has to be personalized for each student,
  - It has to be engaging, self-paced, easy-to-use, & high quality, &
  - It has to not create more work for me!
Southern Illinois University Case Review

Solution: NSTA Learning Center (NLC) e-Text!

- **Pre and Post Content Assessments** on all the core science concepts to identify each student’s content weaknesses & recommend resources

- SciPacks bundled by core concepts to significantly increase content knowledge AND understanding of key concepts

- An array of professional resources provided by experts in their fields with **Individualized Libraries** to organize professional resources and download personal teaching materials

- PD Plan & Portfolio Tools to map SciPacks & other resource interventions

- **Discussion Forums** and Live Chats with Online Advisors provide venues for asking questions and learning from educators around the world
CI426 - 800: Intro Teach Elem Schl Science

The is the SIU/C Home Page for CI 426: Science Methods and Processes for Science Teachers.

Below you will find the list of pre assessments available to you during this course. Your instructor will inform you as to which pre assessment to take first. Next you will complete the Sci Pack that goes with that pre assessment. Finally you will take the post assessment for the same science concept(s). Please note: The post assessment option will not appear until after you have completed the pre assessment for a particular concept.

- Force and Motion Post-Assessment
- Earth, Sun & Moon Pre-Assessment
- Solar System Pre-Assessment
- Cell Structure and Function Pre-Assessment
- Elements, Atoms and Molecules Pre-Assessment
- Nature of Light Pre-Assessment
4. The Sun can be seen only in the daytime, but the Moon can be seen sometimes at night and sometimes during the day. The Sun, Moon, and stars all appear to move slowly across the sky.

It’s remarkable how many older students and adults claim that the Moon is only out at night! While there are a few days near “New Moon” when the Moon is not visible because it’s too close to the Sun, the rest of the month it spends about equal amounts of time in the nighttime sky and daytime sky. The reasons that many people think the Moon is only visible at night include erroneous teaching (“the Sun is for the day and the Moon is for the night”) and the fact that there is less contrast between the Moon and sky during the day, so it is not as prominent as the Sun.

Observing the shapes and changing appearance of the Sun, Moon, and stars is not too difficult for students in grades K–2. However, observing these objects moving slowly across the sky is far more difficult. Most students will enter your classroom with a concept of motion that is likely to be limited to motion that they can see directly. Since the Sun, Moon, and stars take about twelve hours to move from one horizon to the other, they do not appear to move at all.
Benefits of NLC e-Text for preservice instructors:

**Up-To-Date**
- Never need a new text again! High-quality & proven to deliver results
- **science teaching best practices** by the experts
- Create course specific library through collections

**More Time**
- System for managing, tracking & reporting content acquisition progress
- Instant access to all SciPacks, SciGuides, etc.
- **Advanced Search** for anything science

**Great Organization**
- NLC resources easy to find and download with access to 100s of inquiry lesson plans aligned to standards
- **Student activity** and e-Text usage easily monitored
- Science Resources accessible from home
Benefits of NLC e-Text for students:

**Individualized Plan**
To increase specific content knowledge and improve conceptual understanding of core science constructs
Exposure to leading educators and science experts doing science

**Interactive Text**
Student competency and self-confidence increases in science best practice teaching methods & strategies
E-Text grows in usefulness as students continue to learn

**Lifelong Learning**
Free access continues for one year: Sci Packs, SciGuides, e-Book Chapters, and the four science journals
Learning & access to free resources & online help continues forever!
Southern Illinois University Case Review

- Remember Jamilynn...

Hello, I am Jamilynn and I am an aspiring Elementary teacher currently working towards my degree. For one of the courses I am taking I am to create a Unit Plan on a topic of my choice in science. I have chosen the subject of recycling, renewable resources and nonrenewable resources as the topic to be taught to middle school students. I am having a little trouble trying to think of lessons to teach renewable and nonrenewable resources that are more hands on or experiment based. If anyone has suggestions about lessons, or any resources available, that would be greatly appreciated.

Thank You
Hi Jamilynn! I just completed a unit on wind energy. I located some kits on Amazon from Thames & Kosmos Wind Power that I bought to use with my middle school students. The cost of the kits was just under $40.00. I live in Washington State, and we have a windmill farm in Ellensburg, which is 3 hours from us. Many of my students had seen them. The kits allowed us to compare the use of the 3 long blades to the shorter, 5 paddles in terms of efficiency and energy output. The student learned so much; it was amazing. In conjunction with the unit, I used several of the articles from NSTA, & I had my students read and take notes. My middle school students found them really intriguing. I am attaching the articles I found useful.

Wind Collection
Open in New Window

Science Shorts: Wind at Work
- Journal Article - Elementary School

Breezy Power: From Wind to Energy
- Journal Article - Elementary School

Science 101: How do windmills generate power?
- Journal Article - Elementary School

I took a workshop one summer and they showed us some EPA sites we could use to discuss water topics. They have changed since then, but one that is similar is the EPA water homepage at http://water.epa.gov/learn/resources/index.cfm

Another is EPA Watersense ... actually has a rather nice online GIS program where we can bring up a local map with point-source pollution locations marked (IN Map).

And a search using the term "water conservation" brought up 15 interesting articles at all levels - one that was high school, but that could be adapted, had students designing public service announcements that I could see students doing and publishing on YouTube. Still another for middle level students (to get them thinking about the issue of water conservation) was at http://learningcenter.nsta.org/product_detail.aspx?id=10.2505/4/ss04_027_08-42 ... I know that before we discuss water sources, my students don’t know where their drinking water comes from (groundwater) or that of the two large neighboring cities and it makes them think about their actions more.

Tina Harris 423 posts

As I was perusing the forum topics this one caught my eye, not only for my use in school but also I’d like to learn more about the topic as it seems to constantly have new input with all the neat things being discovered. . . I’d like to gather more hands-on activities of how students can help do their part in using our natural resources more responsibly. Everyday things like around the house water conservation. . . I’d like my students to do some kind of water usage audit in their own home - look at their family, and themselves specifically. I will return to this community forum topic for more idea and thoughts.

Sandy Gady 405 posts

Deborah Clevenger 6 Posts
Southern Illinois University Case Review

The SIU/C individual student results mirror the 3 studies Dr. Byers shared earlier.

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<tr>
<th>SciPack</th>
<th>First Name</th>
<th>PreTest Score</th>
<th>SciPack Final Assessment Score</th>
<th>PostTest Score</th>
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<tr>
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<td>Justine</td>
<td>32%</td>
<td>76.70%</td>
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University of Texas Tyler Case Review

- Overview of the e-PD system and need to address scale and sustainability. Research Efficacy Studies
- Use of all e-PD resources with administrative reports and assessments
- Demonstration of How to Use the Learning Center for your preservice teachers
- Use of existing free NLC resources in preservice teaching

NSTA Learning Center

Research Supporting Effectiveness

University of Texas Case Review

Southern Illinois University Case Review
University of Texas Tyler

- **Case Study**
  - Setting: East Texas – rural and suburban
  - University of Texas at Tyler
    - 6000 students
    - Enrollment in STEM Methods Courses per semester – elementary ~60, MS/HS ~15
  - 3 Campuses: (Tyler, Longview, Palestine)
University of Texas Tyler - Elementary

- **Problems**
  - Not enough time to offer enough in-class inquiry experiences for students to feel confident when writing inquiry based lessons
  - Needed access to content and pedagogy information across all science content areas and elementary (recently changed to K-6) grade levels
  - Trying to meet professional development standards for preservice teachers
The Learning Center provides the ability to:

- individualize some assignments so professor can model differentiated instruction
- develop libraries as large or as small (just required items) as they like
- assess content knowledge
- develop and document independent goals for their professional lives
- meet professional development standards
UT-Tyler Elementary - Portfolios

**Purposes**
- A form of differentiated instruction for preservice teachers
- Overlay of professional decision making
- Evidence of meeting the professional development standards

**Requirements**
- Meet to develop goals individually or in small groups
- Develop goals which are subject to change as students explore their content/pedagogy needs
- Future – potentially more emphasis on the portfolio than currently
...I simply put an announcement on Blackboard praising the top folks to date over the weekend. The only man in class had the overall top points. Several young women announced, “We can let Terry get away with that!” And so it began....
University of Texas Tyler – Secondary

Problem

- Original - Each year classes in STEM Education were being cancelled due to not meeting the minimum enrollment numbers required
  - Professors are required to provide independent studies so students can graduate on schedule
  - Students did not evaluate the independent studies as effective means of instruction
- Now – Science and mathematics preservice teachers are in same courses. Preservice science teachers are outnumbered. So the Learning Center provides additional support.
University of Texas Tyler – Secondary

**NSTA Learning Center**
- Provided Structure
- Pre- and Post- Assessment Tools
- Remediation Tools
  - Sci Packs
- Instructional Tools
  - Science Object
  - Sci Guides
  - PD-Planning and Portfolio Tool
  - Resources
  - Upload capability
- Accountability

**Benefits**
- Replaced my text
- Allowed me to tailor experience for each student
  - Biology vs. Chemistry, etc
- Improved Independent Studies
- Support for preservice teachers and new teachers
- One year subscription
  - Methods
  - Student Teaching
  - Induction/Mentoring Tool
    - Teaching (alt-cert)
University of Texas Tyler – Secondary

- Independent Study Outline/Independent Support
  - Pre-assessments
    - Content Indexer
      - Identifies SciPacks
  - PST’s complete the PD Plan and utilize the portfolio
  - PST’s upload their work and samples of student work
  - PST’s develop their own collections for use in student teaching (Aligned to TEKS)
  - Download transcripts and certificates of complete
- Best Part: If students have issues with the system or content questions they can “Ask NSTA”

- Student Teachers and Alt-Cert Teachers
  - Have access to their NSTA Learning Center from previous semester
  - We plan to pilot the new discussion tool to better support student teachers and new teachers
  - Becomes a Toolkit

LIVE SUPPORT ONLINE
Click here
University of Texas Tyler

- Created Customized Collections for "Course Library"
  - Elementary Collection
  - Middle School Collection
  - High School Collection
    - Physical Science
    - Earth Science
    - Life Science
  - Articles, activities, science objects, etc.
University of Texas Tyler

- Administration Tool
  - Track Access
  - Pre-Post Assessments
  - Individual Results and downloads
  - Access to Portfolio
  - SciPacks Completed
- Allows me to track my students while creating a unique experience
  - Result: Less complaints about Independent Studies to the Department
  - Increased SET Scores
Questions

- Overview of the e-PD system and need to address scale and sustainability. Research Efficacy Studies

- Use of all e-PD resources with administrative reports and assessments

- Demonstration of How to Use the Learning Center for your preservice teachers

- Use of existing free NLC resources in preservice teaching

The NSTA Learning Center

Research Supporting Effectiveness

University of Texas Case Review

Southern Illinois University Case Review
Recognize our Collaborators
# Thank You

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