

# Using a Digital Learning Platform to Increase Levels of Evidence-Based Practices in Global Teacher Education Programs

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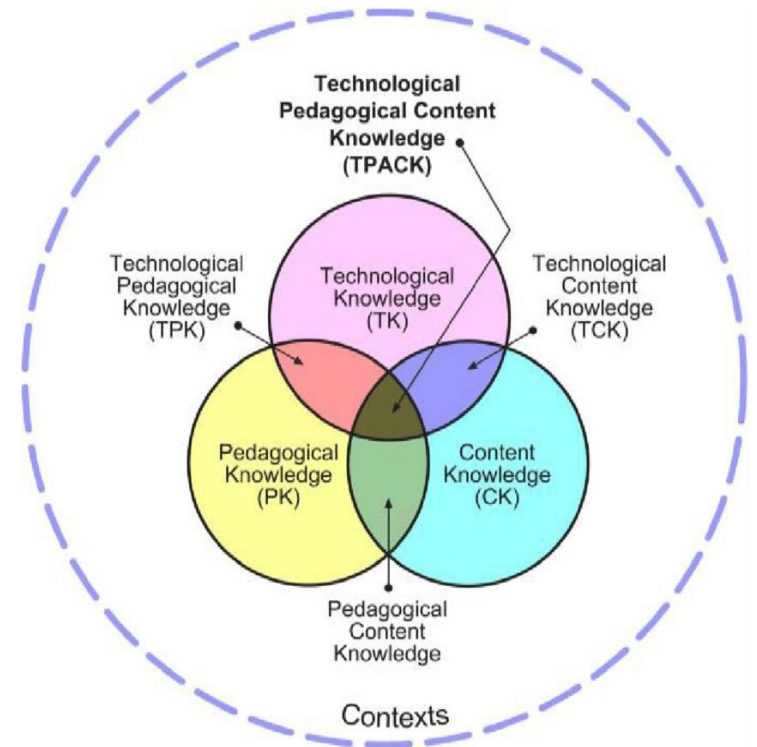
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Science & Knowledge Lab, Birkbeck  
University of London

# This Project Aims

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- To create a **learner-centered** and **technology-rich learning environment** in teacher education programs so that professors and teacher candidates
  - can develop global awareness, collaborative problem-solving skills, and self-directed learning experiences.
  - can learn evidence-based practices and wellbeing.
- To **initiate online learning community partnerships** between Fordham University and overseas universities engaged with teacher preparation and computer science.

# Theoretical Frameworks



# Learner-Centered Approach

- Emphasizes that all instructional decisions begin with knowing who the learners are
- Five categories:
  1. Activity-based learning (e.g., exchange of ideas)
  2. Learner choice (e.g., learners choosing assignments, when and where they study, and how they want to approach a topic)
  3. Collaboration (e.g., team-based learning and peer exchanges)
  4. Real-world challenges (e.g, problem-solving & community outreach)
  5. Metacognition (e.g., transparency of progress, learning pathways, reflection on learning, and self-motivation)

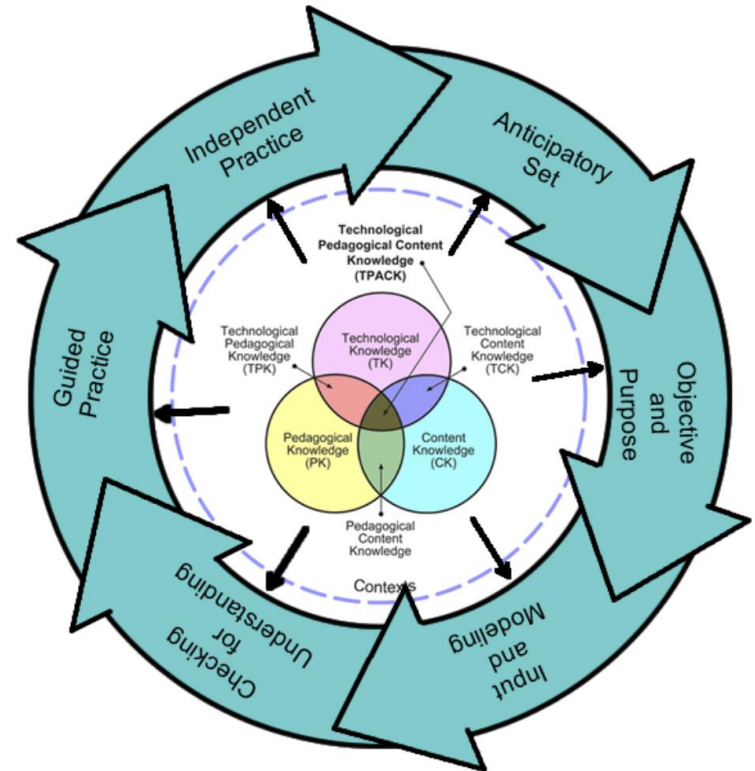


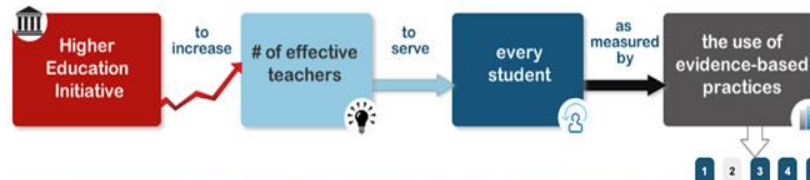
Source: Diogenes, R. (2015). *What is learner-centered?* <http://acrobatiq.com/what-is-learner-centered/>

# Technology Pedagogy & Content Knowledge

Outlines the ways educators can use technology to integrate **content** (targeted learning objectives) and **pedagogy** (instructional methods for teaching the content) to **apply complex knowledge structures across contexts**

(Koehler & Mishra, 2009).





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# What Does the Platform Do?

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1. Enables teacher candidates to monitor and direct their own use of EBPs and wellness.
2. Provides them with instant communication, unlimited potential for collaboration, and automated learning analytics.
3. Tracks candidates' learning progress and outcomes - candidates and faculty to monitor growth of candidates' competences and receive efficient feedback.
4. Helps faculty build shared knowledge and provide induction support for graduates; monitor candidates using EBPs and wellness.
5. Teacher candidates can
  - a. request and provide feedback, co-author instructional materials, view publishing criteria and help resources, and examine exemplars.
  - b. use the platform to assess and track their wellbeing, identify healthy goals, learn mindfulness practices, and offer peer emotional support through shared experiences and resources.
  - c. upload resources that can be critiqued and adapted to meet the needs of various contexts.

# Learning Platform cont.

- Provides a vehicle for teacher-candidates to practice daily instructional tasks such as:
  - determining student assessments of curriculum standards
  - analyzing student work
  - planning instruction for students with diverse learning needs in an online collaborative environment
- Provides data to measure growth toward mastery of instructional competencies.





# Example EBP Module

## Universal Screening

Overview | [School Examples](#) | [Video Discussions](#) | [Implement this Practice](#) | [Earn a Badge](#) | [Learn More](#)

[Back to Assessment EBP List](#)

### OVERVIEW

**Universal Screening** is the first step in identifying the students who are at risk for learning difficulties. It is the mechanism for targeting students who struggle. [Join Our Conversation](#)

### SCHOOL EXAMPLES

- [Sandown North Elementary School Daily Nurse's Log](#)
- [Sandown North Elementary School Systematic Screening Flowchart](#)
- [Sandown North Elementary School Screening Letter](#)
- [Dr. Crisp Post Screening Steps](#)

### VIDEO DISCUSSIONS

Universal Screening in RTI



### IMPLEMENT THIS PRACTICE

[Universal Screening Activity Sheet](#)

### EARN A BADGE

Create and submit materials to earn a Badge



### LEARN MORE

The following ebook is available at Fordham University:

Lesaux, N. K. (2011). *Making Assessment Matter: Using Results to Differentiate Reading Instruction*. New York: Guilford Publishing. Retrieved from: <https://avoserv.library.fordham.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=nlbk&AN=415761&site=ehost-live&scope=site>

\*For universal screening related to behavior, please click [here](#).

## Disabilities and Descriptions

[↩ Back to Disability Awareness](#)

A definition of a “child with a disability” means the child’s educational performance is adversely affected due to the specific disability (definition of a child with a disability), lists and describes the 14 primary disabilities. These definitions guide how the state determines eligibility for special education under special education laws (<https://www.disability.gov/resource/categories-of-disability-under-the-individuals-with-disabilities-act>)

There are 14 disability categories under the IDEA listed below with more information and links to evidence-based practices.

**Are you curious about prevalence rates of disability categories? [Complete this chart to understand the number of students with disabilities in New York State by disability category](#) and to understand the concept of high and low-incidence disabilities.** IRIS Center Disability Awareness Activity.

Note: Eligible students diagnosed with attention-deficit/hyperactivity disorder (ADHD) may receive services or accommodations guaranteed by Section 504 of the Rehabilitation Act of 1973 or the Individuals with Disabilities Education Act. ([Learn More](#))

[Attention-Deficit Hyperactivity Disorder \(ADHD\)](#)

[Autism](#)

[Deaf-Blindness](#)

[Deafness](#)

[Developmental Delay](#)

ADHD

Autism

Deaf-Blindness

Deafness

Developmental Delay

Emotional Disturbance

Hearing Impairment

Intellectual Disability

Multiple Disabilities

Orthopedic Impairment

Other Health Impairment

Specific Learning Disability

Speech or Language Impairment

Traumatic Brain Injury

Visual Impairment Including Blindness

# Digital Portfolio

- Monitor their own learning about EBPs and wellbeing.
- Demonstrate their ability to design learning experiences for students.
- Submit completed performance tasks for peer review and possible publishing into the field-testing database performance tasks.
- Use instructional designs and subsequently analyze the impact of their instruction on P-12 student learning, and collaborate with community members.



# Field-testing

- Opportunity to submit completed lesson plans for peer review and potential publishing in the field-testing database.
- Two advantages of database
  1. The resources are designed by and for beginning teachers
  2. They use pedagogical knowledge acquired in the teacher preparation program.

Project REACH > My Home Page > My Field Tests

## List of Field Tests Given, Received, and Requested

### Field Tests I have Given

You have not yet field tested any lessons.

[Field Test a Lesson](#) [Field Test a UDL Solution](#)

### Field Tests I have Received

Your lessons have not yet been field tested.

### Field Tests I have Requested

You have not requested any field tests.

[Ask for Field Test on a Lesson](#) [Ask for Field Test on a UDL Solution](#)

### Field Test Requests I have Received

You do not have any field test requests.

Field Test Details | Ratings | Analysis & Reflections | Student Work | Preview & Publish

### Field Test for Lesson Addition and Subtraction of Integers and Rational Numbers

Feedback by: [ ]  
Date Used: [ ]  
Date Created: [ ]  
Grade Used: [ ]  
Attachments: [ ]

You must answer all required questions. \* indicates required question.

1. How engaged were your students?  
Little [ ] [ ] [ ] [ ] [ ] Very

2. Rate this learning experience as an effective tool to make visible in the classroom student understanding of central ideas of the subject or discipline.\*  
Little [ ] [ ] [ ] [ ] [ ] Very

3. Rate this learning experience as an effective tool to increase student content knowledge.\*  
Little [ ] [ ] [ ] [ ] [ ] Very

4. Rate this learning experience as an effective tool to help develop student literacy skills.\*  
Little [ ] [ ] [ ] [ ] [ ] Very

5. How useful was this experience overall (activity, worksheet, etc.)?  
Little [ ] [ ] [ ] [ ] [ ] Very


Description of Classroom Use  
Analysis of Student Learning  
Reflections and Recommendations  
Student Work Samples




# Student Work

You can upload examples of your students' work and display them in this gallery. Please make sure that you do not include any pictures of students or personally identifiable information with your uploads.


Gallery
List View
Shares Sent
Shares Received




Mary Had a Little Lamb from Lesson Plan ...



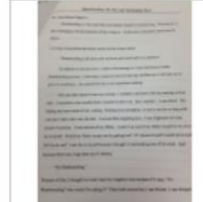
My Birthday




10th Grade Imperialism from Lesson Plan ...




Student B




Skateboarding Personal Essay




US and Mexica War




US & Mexico War




Student Work 1



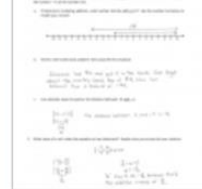
Test from UDL Solution Margie's UDL Test




My Birthday from Lesson Plan 10th Grade ...





IE9 Test





Mid Module Assessment from Lesson Plan A...

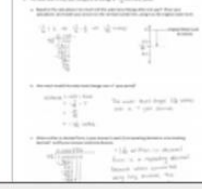












Upload Student Work

# Self-Assessment

Monitor the results of their self-diagnostic survey and set learning goals for knowledge and skills that they would like to acquire.

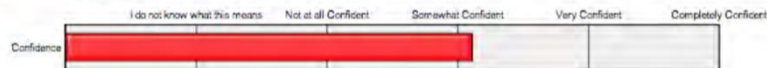


## Project REACH Research Survey

Based on your self-assessment, it appears your current frequency of use for each category of evidence-based practices is:

[Start your Assignments](#)

### Assessment of Confidence



### Frequency of Use of Evidence-Based Practices



**My Assessments**  
 Project REACH » My Home Page » Assessments » Assessment Form

Feedback Related Items

Edit Assessment 0 0 0 0

\* Indicates required field

**Assessment Details**

Title\* (help) UDL

Students Assessed (help)  All Students  Specific Groups

Accommodations & Modifications (help)

Formative/Summative (help) (criteria) Formative ↓

Assessment Purpose (help)

Evidence-Based Practice (help) Assessment ↓

Feedback Source\* (help) Self ↓

Feedback Format\* (help) Written ↓

Feedback Type\* (help) Formal ↓

Use Of Feedback (help)

Depth of Knowledge (help)  Basic application of skills/knowledge  Strategic Thinking  Recall  Extended Thinking

Results will lead to these implications for instruction (help)

**Attachments & Materials**

Attachments (help)  
[Add an Attachment](#)

Materials (help)

- I have a Web site to reference
- I have a book or textbook to reference
- I have a supply list to create
- There is an instructional program that I'm using

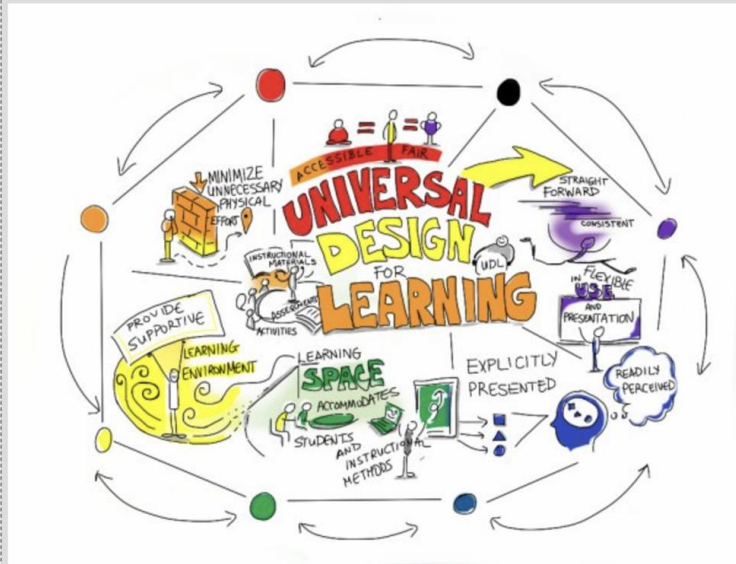
Save Unit Assessment Delete this Assessment

# Blog Communication

Whoa! That is fantastic! Did you draw that yourself?

I really love how you managed to make clear the nature of UDL: it's all ultimately about fairness and accessibility. I've been looking over my own lesson plans and classroom techniques and I'm pretty pleased that a lot of what you displayed here is what I've been striving for (and occasionally achieving) without knowing it had a name! Would you share that image with us? I'd love to show my colleagues.

Allyson Choon wrote on 2015-02-18 23:21:52:



For teachers, I think UDL means multiple points of entry. This means that learning can be approached in multiple ways. There is no single method to teaching and learning. Multiple points of entry is a means to help all students learn. Through multiple points, teachers have the power to minimize learning barriers created by the curriculum by presenting information in different ways, providing students the option to express what they know, and presenting multiple means of engagement for students. For teachers, efficient and effective teaching uses multiple points of entry points to respond to the different ways students learn and perceive information.

For students, UDL means that there are learning opportunities for everyone. UDL is necessary because each student varies greatly in how they perceive information, organizes and expresses ideas, and engages in learning. UDL provides the opportunity to let every student thrive academically.

# Evidence-based Practices (EBPs)

- The U.S. Department of Education strongly encourages the use of EBPs to support students in ALL educational settings.
- Widely used in assessing, teaching, and managing behavior problems in the United States
- Research - Struggling students who are exposed to EBPs show overall improved outcomes.
- The EBP trend serves to elevate the accountability of educators, calling on professionals to implement EBPs.
- Little is known about how teacher education programs prepare their candidates to use EBPs.



Roberts, Torgesen, Boardman, & Scammacca, 2008; Russo-Campisi, 2017



# Research Projects on EBPs & Wellbeing

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- Purpose of research project on EBPs - the extent to which candidates' knowledge and skills are improved as a result of their learning of EBPs on an online learning platform
- Data collection:
  - Formative assessment data automatically collected when candidates use the platform
  - Performance tasks data (i.e., pre/post knowledge surveys, text, lesson plans, blog posts, and shared images/audio/video for common phrases and themes will be also collected
  - Focus groups to gather their perceptions about the EBPs infused on the platform
- Expected outcomes
  - Levels of knowledge and skills candidates gain
  - Helps us predict user behavior and guide future platform development

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