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A Survey of Innovative Approaches to Teaching and Learning

Reinhardt University's CITEL has provided you with a curated survey of innovative approaches to learning. This is with the understanding that there is no one six fits all nor "best practice" to teaching and learning. This survey is by no means a comprehensive review of conversations about innovation in teaching and learning, rather, it is intended to introduce you to topics of interest that you can explore on your own.

If you are interested in learning more about any of these topics, review the References. And as always, we are also available for consultations at CITEL:

Dr. Mason Conklin (Director) is available for consultations regarding Educational Technology, Online Course Design, CITEL Grants, Canvas, and our QEP "Where in the World RU Going?" Click here to schedule a consultation.

Mrs. Lydia Ellen Laucella (Assistant Director) is available for consultations regarding Instructional Design, FTF and Online Course Design, Innovative Pedagogies, and Canvas. Click here to schedule a consultation.

Overview

Teaching With Technology. Technology is constantly changing at a rapid pace; it is near to impossible to stay current with all the recent trends. This brief survey will introduce you to some of the current top trends in teaching with technology.

Teaching Without Technology. This survey will introduce you to some approaches to teaching without technology, a sort of blast from the past if you will. Now, this might be hard to enact in a post-COVID world, however, these are interesting approaches to consider in terms of how we approach teaching and learning in a digitally-driven world.

Data/Opensource/ Crowdsourcing. This survey will provide you with an overview of innovative ways that data, open sourcing, and crowdsourcing are being used to drive learning and inform teaching.

Personalized Learning/ Alternative Learning Paths. Twenty-first century learning approaches education with a student-centered approach. This survey will provide you with a variety of ideas about personalized learning and alternative learning paths.

Embodied Learning. With the science of learning in mind, embodied learning approaches learning from enacting all senses. Embodied learning also explores our understanding of our role as humans and our interactions in a highly digitized world.

Metacognitive Approaches. This survey provides you with the latest metacognitive approaches to learning, such as developing a Growth Mindset and Brain-Based Learning.

Competencies Approach. This survey provides a review of the competencies approach to learning, that is, focus instruction on developing the skills and competencies students need to be successful in college and beyond.

Play Learning. Play learning is not just limited to younger students. This approach to learning can be interpreted as reading the world around you and interacting with it. It is also about creating safe spaces to explore, make mistakes and grow by focusing on the learning process instead of the outcome (a grade). This survey will provide you with some innovative approaches to play learning.

Problem-based learning (PBL)/ Experiential Learning. Students learn best when they get to engage with relevant, real-world material. This survey provides you with new approaches to PBL and experiential learning.

Equitable Learning. There is renewed interest equalizing learning. In this survey, you can review new approaches to learning that address the importance of creating equitable learning opportunities for all.

Compassion Pedagogy. Compassionate approaches to learning place a relevance on a student's individuality, focused on developing the whole person, and put empathetic practices at the forefront of teaching. In this survey, you will learn about various compassionate practices.

Teaching with Technology

- **Artificial intelligence:** Artificial intelligence for adaptive student learning and teaching support.
- **Animations/ Simulations: C**an help students envision certain content. Can facilitate learning for students with learning disabilities and when used as an assessment tool, gives students agency over their learning.
- **Online labs:** Online labs are becoming more mainstreamed in STEM fields to allow for more accessibility.
- **STEM-focused learning:** There is increased inter-disciplinary integration of STEM-fields across curriculums.
- **Badging/ Micro credentialing:** Badging and microcredentialing can be used as a student incentive or for professional development.
- **QR codes for learning:** QR codes can increase accessibility to content and new can even be used as a polling tool or other instructional tool in the classroom.
- **Virtual/ augmented reality (AR):** These tools can bring the experience to students who wouldn't normally be able to experience the event in person. There are cheap options to incorporate AR and VR in your classroom, like with Google's AR & VR.
- **Learning with robots (supportive instruction)-** Robots can provide extra dialogue with students and can help instructors target specific skills that students need to develop.
- **Virtual studios**- This is a studio-type learning that is highly collaborative, and feedback driven (e.g. Canvas Studio).
- **Drone-based learning-**This approach to learning transcends geographical barriers and can provide multiple perspectives to students.
- **Understanding/ incorporating ICT (Information and Communication Technology)-** This approach allows students to develop critical thinking skills by helping them understand connectivity and interrelatedness, like through the Internet of Things.

- **Learning through social media** –Social media can offer long-term and networked learning opportunities.

Teaching without Technology

- **Renaissance learning-** Some scholars argue that in a post-digital world there is return to learning without technology. This approach involves active learning techniques like storytelling, interaction and active exploration.
- **Offline Networked learning:** Networked learning is the connecting of people and information to support learning.

Data/Opensource/ Crowdsourcing

- **Open data and data ethics:** Authenticity and transparent data practices can create relevant and real-world specific learning.
- **Open textbooks** – Openly licensed textbooks which improve accessibility and reduces barriers to learning**.**
- **Student-led analytics** – Using data to help learners set and achieve their own goals.
- **Big-data inquiry/thinking with data** – Understanding and analyzing the world by working with large sets of data.
- **Learning from the crowd** – Using the public as a source of knowledge and opinion.
- **Formative analytics** – Developing analytics that help learners to reflect and improve during a course (I.e. high score/low score).

Personalized Learning/ Alternative Learning Paths

- **Personalized learning paths:** Creating personalized learning paths, like Canvas Pathways.
- **Genius hours:** Let students experiment with a subject of their choice for part of direct instructional time.
- **Mobile learning:** Learning anytime, anywhere.
- **Place-based learning:** Learning across contexts, disciplines and spatiality.
- **Cross-over learning:** Learning in informal contexts.
- **Underground Education: L**earning from the world around you.
- **Learning with Internal Values:** Using students' interests to inspire learning.
- **Translanguaging**: Enriching learning using multiple languages and/or using a student's native language.

Embodied Learning

- **Embodied Learning**- Self-awareness and awareness of your position in the world. Also, the nonmental aspects of learning.

- **Posthumanist perspectives:** Embodiment of learning in digital and real world.
- **Multisensory learning:** Stimulation of multiple senses during the learning process to support learning.
- **Navigating Post-Truth Societies** – Focus on building critical reading and thinking skills to enable students to navigate pseudoscience and fake news.
- **Immersive learning** – Intensifying learning by experiencing new situations.

Metacognitive Approaches

- **Growth Mindset:** A metacognitive approach to learning that focuses on what we can learn from our success and failures- which is also part of USG's Momentum Year suggestions: https://www.completegeorgia.org/what-momentum-year
- **Brain-Based Learning**: An approach to learning to understand how the brain learns in order to affect students' understanding of their own learning.
- **Making Thinking Visible:** Helping students visualize their thinking process.

Competencies Approach

- **Mastery Transcripts:** Developing skills-based transcripts: Mastery Transcript Consortium.
- **Skills Mapping-** A visual representation of skills that are needed, this can help students understand gaps in their learning.
- **Grading alternatives-** Alternative to letter grades.
- **Learner profiles**- Tracking progress through learner profiles which can also be linked to personalized learning/ alternative learning paths.

Play Learning

- **Finding Wonder:** Helping students create and maintain wonder in the learning process.
- **Games-based learning (GBL):** Using certain gaming principles in application to education.
- **Gamification:** Application of gaming techniques, scenario building, strategic planning and assessing alternatives- freedom to think outside the box.
- **Storytelling/ Narrative-Based Pedagogies:** The use of narrative and storytelling to increase retention.
- **Stealth Assessment**: borrows from GBL, the ability to continually track students' data progress, provide mastery paths, and simulated learning environments. This can be used to test hard to measure outcomes like perseverance, creativity and strategic thinking.
- **eSports:** Competitive online gaming that can transfer to education in developing digital literacy and collaborative skills.

Problem-Based Learning/ Experiential Learning

- **Action-Based Learning**: A team-based approach to learning to solve real-world problems.
- **Computational Thinking: B**reaking down bigger problems into smaller ones.

- **Maker Learning-** Problem and project-based learning that promotes hands-on learning experiences to solve authentic problems (makerspaces- encourage collaboration and free flow of ideas).
- **Augmentation Pedagogy:** Making claims and then providing evidence and argumentation to support or deny those claims.
- **Design Thinking:** A five-stage process: empathise, define, ideate, prototpye, and test. To learn more about design thinking, click here.

Equitable Learning

- **Decolonizing of Instruction:** Focus on indigenous ways of learning, exploring alternate texts, teaching critical literacy and encouraging the recognition of individual student values to encourage student self-reflection and self-monitoring.
- **Multi/ critical literacies.**
- **Digital literacies and competencies.**

Compassion Pedagogy

- **Understanding Individuality:** Emphasizing and celebrating individual differences.
- **Social/Emotional Learning:** Tapping into the social-emotional aspects of the learning process.
- **Roots of Empathy/ Teaching Empathy:** An approach to developing the soft skill of empathy.
- **Social Justice Pedagogy:** Active citizenship that is centered with an agenda for promoting an egalitarian society. At the center of this approach is treating all students with dignity and care.
- **Intergroup Empathy:** Understanding and relating to the perspectives and experiences of of others**.**

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