5 Considerations in Equitable Design

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How We Roll

Using data to solve problems of practice

Questions
- Propose questions in the field
- Chat or tweet using #QualityinAction
- Share your own resources, blog pots, links, articles, etc.

Data
- Provide data to answer these questions
- Share quantitative, qualitative, mixed-methods, meta-analyses, narratives, public communication, anecdotes, and more
- Dash in some theory
- Share your data

Claim
- Determine what we *do* know
- Leave here knowing 5 things about equitable design
Links

1. DetaResearch.org
2. DetaResearch.org/publications
3. DetaResearch.org/research-support/
4. DetaResearch.org/news/
5. ProfessorJoosten.BlogSpot.com
What mode is better, f2f or online? is more equitable?

Mode comparison research has been conducted for over 50 years. Mode comparisons alone are comparing inputs and useless.
Traditional, face-to-face or onsite learning is the gold standard.

Say what?

While many people are comfortable with f2f, let's discuss the research. Research indicated that the course modes, discipline, and level could influence outcomes.
Mode comparison research is harmful to the creation and advancement of our knowledge of student learning.
Comparing Student Satisfaction With Distance Education to Traditional Classrooms in Higher Education: A Meta-Analysis

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Meta-analysis provides a method of quantitatively summarizing and comparing empirical literature to reduce Type I and Type II error. The meta-analysis described here indicates a slight student preference for a traditional educational format over a distance education format (average $r = .031$, after the deletion of outliers), and little difference in satisfaction levels. A comparison of distance education methods that include direct interactive links with those that do not include interactive links demonstrates no difference in satisfaction levels. However, student satisfaction levels diminish as additional information is added to the available channel of instruction (e.g., written to audio to video). The findings support those of researchers arguing that distance education does not diminish the level of student satisfaction when compared to traditional face-to-face methods of instruction.
2004 | DE course students outperformed traditional students on exams and course grades.
Applications of DE outperformed their classroom counterparts and many performed more poorly.
2010 | Students in online conditions performed better and outcomes exceeded those of students receiving face-to-face.

Blended or hybrid instruction combining online and face-to-face elements had a larger advantage to purely face-to-face instruction than did purely online instruction.
Research Annotations

The History And State Of Blended Learning

DETA Database | Research Support
Finding meta-analyses
No Significant Difference

About The Database
The No Significant Difference database was first established in 2004 as a companion piece to Thomas L. Russell's book, 'The No Significant Difference Phenomenon' (2001), IEDC's fifth edition, a fully indexed, comprehensive research bibliography of 3005 research reports, summaries and papers that document no significant differences (NSD) in student outcomes between alternate modes of education delivery. Redesigned in 2010 and provided as a service of WCET/WHOHE (Cooperative for Education Technologies), a division of the Western Interstate Commission for Higher Education, the database was designed to expand the offerings from the book by providing access to appropriate studies published or discovered after its publication.
Research Review: Educational Technologies and Their Impact on Student Success for Racial and Ethnic Groups of Interest

The National Research Center for Distance Education and Technological Advancements (DETA)

WCET – the WICHE Cooperative for Educational Technologies
Under certain circumstances, students were more likely to succeed in blended and online courses than in their face-to-face (face-to-face) counterparts.

Wladis, Conway, & Hachey, 2017
Gavassa, Benabentos, Kravec, Collins, & Eddy, 2019
DETABase | Publication
UWS DLE ux
Mode preference
Students reported that after the initial phase of COVID-19 vaccinations their preference for course enrollment as all on-campus (n = 917; 29%), mostly on-campus (n = 653; 21%), blended (n = 529; 17%), mostly online (n = 189; 6%), and all online (n = 850; 27%).
Be open to emerging course modalities

Research indicates that digital, blended, and online can provide quality learning and create equitable experiences for students.
How do we design quality and equitable experiences?

Efforts to ensure quality and equity are not an afterthought. They are part of the vision, mission, strategy, planning, and resources.

#QualityinAction
Online Course Quality Indicators

Eight indicators

These indicators were developed based on quantitative and qualitative cross-institutional studies conducted by the DETA Research Center.

**Design**
- specific and measurable learning objectives
- alignment to assessments and learning activities
- authentic, real-world experiences

**Organization**
- well-organized course
- easy to navigate
- logical and consistent format
- alignment between topics and subtopics
- manageable sections

**Support**
- manage students expectations
- provide orientation to the course (purpose, format, and getting started)
- illustrate alignment of objectives, assessments, and activities
- clear instructions and directions
- description of grading and assessment plan

**Clarity**
- reduce barriers to learning
- provide clarity in the expectations of student activity (participation and performance)
- include explanations, descriptions, standards, requirements, guidelines, and context

**Instructor-interaction**
- express interest in student learning
- actively participate in online discussions
- facilitate learning and peer interaction
- expand students’ thoughts and knowledge
- provide new prompts and additional content
- provide timely and detailed feedback on assessments and student inquiries

**Peer-interaction**
- facilitate active learning through frequent and engaging peer involvement and meaningful collaborative work
- provide opportunities and technologies available for students to learn from each other

**Content-interaction**
- strategically enhance the student interaction with accessible and interactive content (provide CER)
- support dialogue, critical reflection, and analysis, and real-world applications of the content
- provide materials that are current, rich, and sufficient in breadth and depth
- identify important topics and provide context

**Richness**
- provide richness in learning materials and activities, support and instructions, instructor interactions, and tools and media

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What is quality?
A Cross-institutional Study of Instructional Characteristics and Student Outcomes: Are Quality Indicators of Online Courses Able to Predict Student Success?
Tanys Joosten, Rachel Custolis, Lindsey Harness

Abstract

A study was conducted to examine instructional characteristics and their relationship to student outcomes in online courses at a 2-year and 4-year higher educational institution. Instructional characteristics included learner support, course design and organization, content design and delivery, interactivity (student-instructor and student-student), and assessment and evaluation. A student survey instrument was created that captures student perceptions of the instructional characteristics of their course, their learning, and their satisfaction with the course. The data collected from the student survey was merged with data from institutional student information systems (e.g., demographics and course grade).

Instructional characteristics influence student outcomes. No difference for racially minoritized or first gen.
DETABase Research Support
DETA Research Toolkit
Student Survey Instrumentation Packet

This document provides a student survey packet for studies and variables as well as an associated codebook for surveys and student information system data to help guide quantitative data collection.

Instructional and Course Design Characteristics

Learner Support
Variable Names: ICLEARNS3-ICLEARNS19a
17-items 5-point Likert Scale; Range: (1) "Strongly Disagree" to (5) "Strongly Agree"
Explanations on how to get started in the class were clear.
Exclusions included the purpose and format of the course.
Students with adequate notice and time to acquire course materials.
Interaction with the instructor, content, and other students was
DETABase Publication
The #DETAABIHE
Design institutions
Consideration Two

Consider design

Research indicates that design improves outcomes. Design intentionally moving beyond instincts, socialization to academia, and previous experiences.
What can I do to move beyond zoom lectures and exams?

Traditional instructionist approaches, lecture-based approached, are still favored by the majority of college courses.

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DETABase Publication
The #DETAABIHE
Centering the students
Move beyond the mode of online and f2f to focus on more meaningful characteristics - pedagogy.
The four dialecticals of blended learning

Each learning experience has a place on these four dialecticals:

1. Technological. This dialectical illustrates the leaness or richness of the technology or media characteristics used in the course (see Daft & Lengel, 1986; Joosten, 2020). Some faculty and instructors may use more lean technologies in their courses such as text-based or oral communication (e.g., face-to-face, textbooks). Others may use more rich technologies such as recorded video (e.g., YouTube) or live meeting tools (e.g., Zoom, Microsoft Teams, Blackboard Collaborate Ultra, Cisco Webex).

2. Temporal. The temporal dialectical is reflective as to whether the students meeting in real time (synchronous) or working independently over time (asynchronous). Students may be meeting in real time onsite (e.g., for a lab or group work) or online using a web meeting tool (e.g., Zoom). Or, students may be working independently outside of class (e.g., online threaded discussions or quizzes) allowing more flexibility in when and where they complete their learning activities. During the emergency response to the pandemic, some referred to this model of blended that focuses on the temporal aspect as ‘bichronous learning’ or using a blend of synchronous and asynchronous learning (Martin, Polly, & Ritzaupf, 2020).

3. Spatial. This dialectical provides flexibility by allowing students to learn together or independently from each other providing greater access for students being able to move in time and space. Spatial and temporal dimensions of social processes are often tied together and are essential components in understanding and structuring human behavior (see Giddens, 1984) including teaching and learning.

4. Pedagogical. This is the most critical of dialecticals when examining the relationship to learning. As Picciano describes (2009), the course could be driven by pedagogy and not the technology. While often faculty and instructors are looking for solutions to supplement their instruction, it is the changing in the instruction and teaching itself to integrate more active learning pedagogies or ways of teaching that can positively influence student success. Each dimension can be approached with some degree of nuance based on the faculty or instructors’ lived experience before and during the global pandemic informing their planning for the future of perfecting their blend for their course, their students, and their program. It often takes several semesters for educators to find the sweet spot of the blend that has the greatest positive relationship to student outcomes.
Consideration Three

Use more active learning pedagogies and constructivist approaches

Instructionist approaches are antiquated, outdated, and ineffective. Students want authentic learning experiences, and industry wants students with authentic skills.
How do you ensure students are successful in their online courses?

Preparing students and managing expectations even before the course starts can be key.

#QualityinAction
Are students ready for online?

**Online Learning Readiness**

Tanya Joosten & Rachel Cusair

Published online: 21 Feb 2020

ABSTRACT

This paper examines the relationship between student characteristics of online learning readiness and student outcomes in online courses at two higher educational institution. Data were collected from student surveys (student characteristics of readiness and outcomes) and merged with institutional student information systems data (e.g., demographics and course grades). Multiple regression analyses revealed that several student characteristics of online learning readiness significantly influenced student outcomes. MANOVA analyses were conducted to examine between group differences of each student characteristics among
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Prepare students to learn
Consideration Four

Prepare students for technology and design

Students need to know how to use technology to work and communicate as well as manage flexible environments to learn in tech-enhanced, blended, and online environments?
How do you ensure quality and equitable design?

Efforts to ensure quality and equity are not an afterthought. They are part of the vision, mission, strategy, planning, and resources.

#QualityinAction
Preparing for a new pedagogy and technology by enhancing instructor readiness.
Consideration Five

Prepare and develop instructors

Faculty and instructors need to understand how to create a structure that facilitates activities and produces documentation that learning objectives were achieved no matter the mode but while understanding what each mode can offer and taking advantage of it.
One more time...
Be open to emerging course modalities

Research indicates that blended and online can provide quality learning and create equitable experiences for students.
Consideration Two

Consider design

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