

Equity: Fostering student engagement for improved equity and inclusion

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Agenda

- Introduction
- Equity in Access
- Relationship between Equity & Engagement
- Barriers to equitable engagement
 - First-generation college students
 - Cultural and lingual differences
 - Gender-based participation
 - Level of preparedness
 - Introversion vs extroversion



Equality vs. Equity

Equality is treating everyone the same exact way, regardless of differences.

Equality focuses on inputs.

Equity is providing everyone with what they need to succeed.

Equity focuses on outcomes.



Illustration by Angus Maguire http://madewithangus.com/

Defining Access:

- Equitable opportunities
- May require additional services
- Removal of actual *or* potential barriers





Does access have built in equity implication?

In what ways can access present barriers to equity?

When does online learning not automatically improve access?





Common barriers to access



Infrastructure needs

Network access, especially high-speed access that will allow video and video-conferencing

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Hardware needs

Computer/tablet/smartphone powerful enough to run the LMS and have multiple apps open at once.



Software needs

This includes both licenses/seats, and also *choosing* software that has mobile or minimal versions available

How can instructional technology help overcome these barriers?





Accommodations that Impact Equitable Access



Infrastructure

- Mobile hotspots for loan to students in areas with cellular coverage
- Lists of eduroam institutions in the student's area
- Mailing flash-drives of materials (with adapters!)
- Assistance to instructors, to create asynchronous and



Hardware

- Laptop/tablet/smartphone loan
- Laptop/tablet/smartphone supply program
- Flexible device options



Software

- Centrally-funding seats/licenses
- Compatible with smartphones and streaming laptops
- Free trial period to ensure first day of class readiness





The Ed tech experiment, no one asked for...

Near-immediate school closures tested the limits of our technological capabilities and processes

Novices and experts alike, all experienced technology fatigue

Connected, active classrooms became more necessary, yet more difficult to facilitate



The tale of two technology realities

95%

of undergraduate students own a laptop, tablet, or smartphone.

30%

of undergraduate students own a laptop, smartphone, and a tablet.

2017 Educause <u>Study on Undergraduate Students and</u> <u>Information Technology by</u>



of faculty ban or restrict mobile phone usage in the classroom (2017)



of undergraduate students report using their devices for non-class related activities. (2017)

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So students have these devices, how can we use them to address other known barriers to equity?





Equity as a Matter of Engagement



The Importance of Equitable Engagement

- Students who are highly engaged are 1.5 times more likely to complete a degree Svanum and Bigatti (2009)
- Engaged students, on average, require one fewer semester to complete their degree. Svanum and Bigatti (2009)
- Students who actively participate are more motivated (Frisby & Myers, 2008; Junn, 1994), engage in more critical thinking (Garside, 1996), and show improvement in communication skills (Dancer & Kamvounias, 2005).



First Generation College Students Realities

Barriers to Equity

Cultural and Lingual Differences



Gender-related Participation



Introversion vs Extraversion Expression of

Engagement





First-gen Students

Possible Barriers

Uncertain climbers (Richardson & Skinner)

Lack of confidence in math, English, and study skills

More likely to have competing job and/or family responsibilities

Lack of cultural, social, and emotional connection to college and/or 'imposter/syndrome'

Fostering equity through technology

Build confidence through peer-to-peer listening and learning

Asynchronous learning opportunities enable flexible time management

Timely peer and instructor feedback fosters feelings of acceptance and belongingness





Cultural & Lingual Differences

Possible Barriers

Individualistic tendencies can inhibit student interaction and collaboration

Collectivist tendencies and focus on intimate relationship can hinder expressive communication

Action-orientation vs. theorybased vs. socially interactive

Language proficiency and/or confidence may slow response time or impact comfort with responding

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Easier facilitation of multimodal activities like 'think, pair, share'

Digital learning tools help scale instructor facilitation and guidance of small group discussions

Asynchronous assignments provide more time for crafting answers



Gender-based Participation

Possible Barriers

Students scoring higher on masculinity and androgyny (who also score high on masculine traits) report higher levels of in-class participation¹

What is considered 'participation' more heavily weighted towards 'speaking up' and devalue other means of participation

Female-presenting students may underestimate their abilities, particularly in science² while male student may be overconfident of their abilities in STEM fields³

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Give equal weighting to male and female student responses with polling tech

Providing transparency on class feedback can help all students reinforce their sense of competency

Anonymous polling functionality provides safety for any student to respond truthfully





Introversion vs Extraversion

Possible Barriers

Instructor tendency to lean towards own participation style

Tendency to reward 'thinking out loud'

Rapid answering rewarded more than thoughtful reflection

Fostering equity through technology

Intentionally consider how to guide students from extroversion to introversion and vice versa, as both modes of being have benefits

Use virtual office hours as a way to value participation

Asynchronous learning opportunities provide space for introverted students to gather and share their thoughts, while extraverts can also shine in synchronous activities



Give Every Student a Voice

- Intentionally design diverse activities that provide opportunities for independent, small, and large group work
- Consider how 'quiet' work is valued when thinking about class participation
- Provide opportunities for asynchronous work

Learning Activity	How it is good for introverts?	How it is good for extraverts?
Online Chat in a Web	They can take time to construct	They can respond verbally or in
conferencing platform.	their answers by typing them in	writing in Chat when a question to
	Chat.	consider is posed.
One-Minute Paper	They can self-assess by	They are encouraged to be
	formulating their questions and	reflective and self-assessing.
	responses clearly.	
Online Polling	Gives an opportunity for providing	Gives an opportunity to share their
	feedback privately/anonymously.	thoughts.
Discussion	Gets them involved with peers	Gets them a chance to hear others'
	and faculty.	ideas.
Team Projects	Gets them involved with peers;	Allows for full participation and
	lets them choose a role.	collaborating.
Think-Pair-Share	Gives both time and one-to-one	Gives a chance to share with the
	sharing.	larger class after pair sharing.
Pairs work	Is less taxing than larger team	Allows for peer sharing and talking.
	work.	
Assignment Rubric Self-	Provides the opportunity for	The reflection assignment allows
Assessment	students to reflect on their own or	them to share their self-assessment
	team's quality of work.	thoughts with the instructor.





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