

Equity in Online Learning

Diverse Lenses on Improving Online Learning Theory, Research, and Practice



Digital Learning Lab

Equity

disability

“Equity does not mean that all students obtain equal education outcomes, but rather that differences in students’ outcomes are unrelated to their background or to economic and social circumstances over which students have no control”

--OECD (2018)



Background

- Pre pandemic: equity issues related to differences in
 - *who* attended online,
 - unclear impact of online learning on student achievement (and variation of single class grade vs. graduation), and
 - concerns regarding disparate access and outcomes for minoritized groups



WHO is online?

- Pre pandemic: equity issues related to differences in *who* attended online,
 - **K-12** online courses primarily for:
 - Offering courses not otherwise available at school, enrichment
 - Meeting the needs of specific groups of students (actors, athletes)
 - Credit recovery--re taking a class that is required for graduation that a student failed



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 - **Credit recovery**--re taking a class that is required for graduation that a student failed -- **Majority of use cases, second track?**



WHO is online?

Pre pandemic: equity issues related to differences in *who* attended online,

- **College students have a wide variety of patterns:**
 - Single course vs. entire curriculum
 - Over $\frac{1}{3}$ of college students solely online
 - Almost every college has some online courses
 - Each year about $\frac{1}{3}$ of college students take an online course



Choosing online or face-to-face (students)

Online

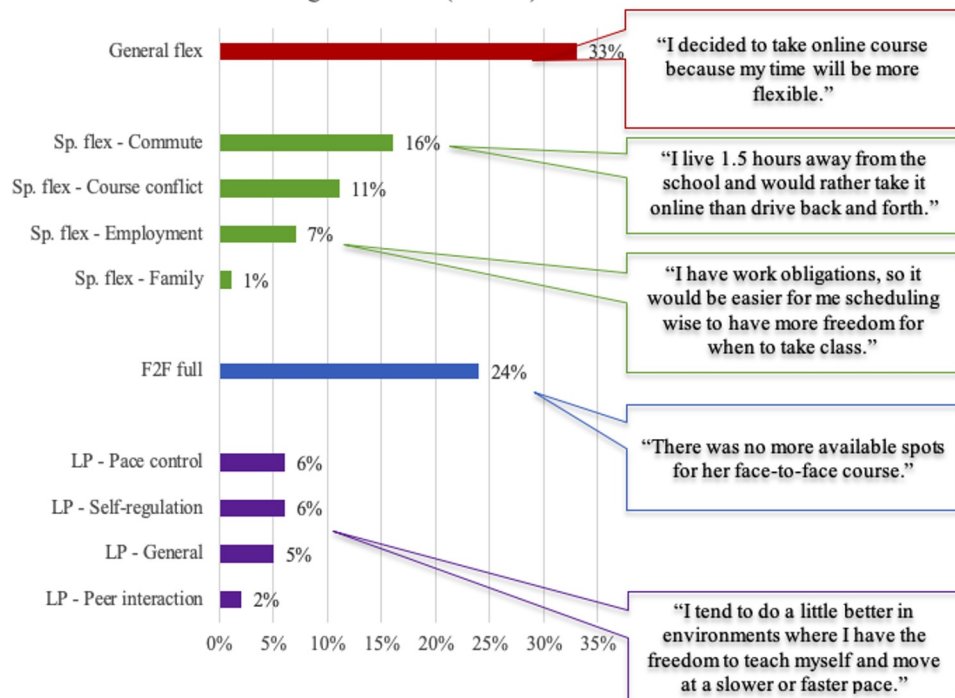
- Flexibility
- Convenience
- Access

Face-to-Face

- Perceived learning affordances
 - Chosen for more difficult courses
 - Chosen for more important courses



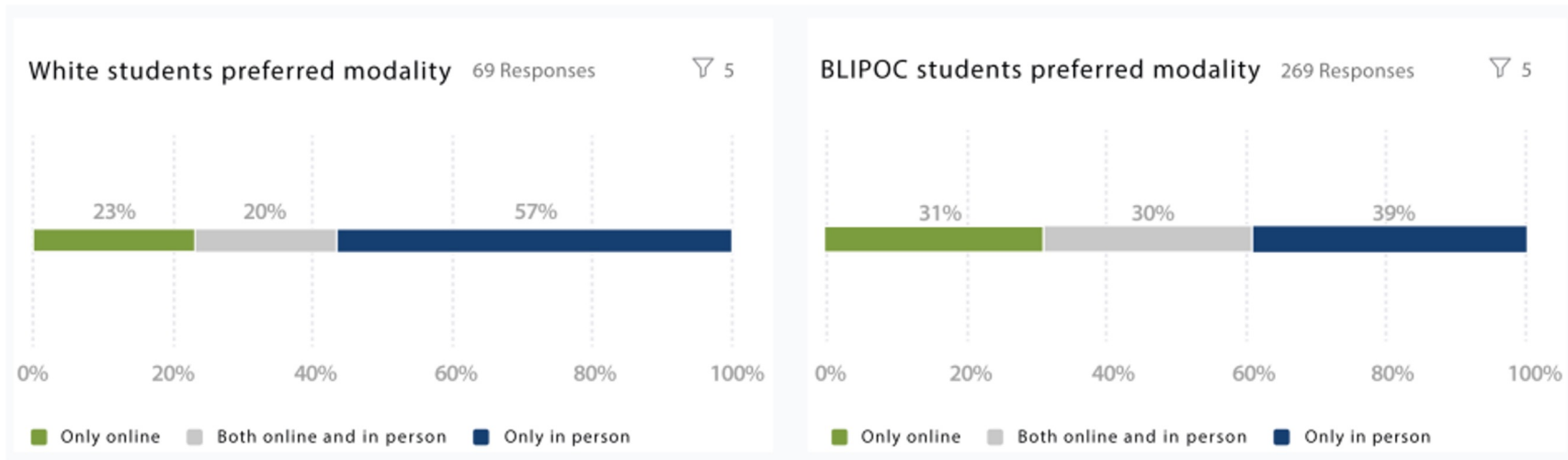
Reasons for Choosing OL Course (n = 219)



Choosing online or face-to-face (students)

Figure 1: Students' preferred course modality, by race/ethnicity

UPDATE



What do we know about online learning?

- Students generally perform **worse** in online compared to face-to-face courses when controlling for population differences (.10 to .30 SD below peers)
 - Especially for underrepresented minority students, younger students, less prepared students
 - Reduced grade in next course in sequence
- Increased withdrawal and dropout rates
- **BUT** also increased graduation rates



Pandemic impact

- Amplified achievement gaps
- Unfinished learning
 - Higher in math vs. reading
 - Wider disparities for same age-group, heterogeneity increase in classrooms
- Higher levels of drop out, not going to college



Framework for Equitable Online Participation

- **Physical:** Hardware, software, and internet access
- **Human:** Literacy, education, self-regulation
- **Social:** Community, teachers, peers



Physical

Computer

Broadband

Physical space: quiet, work-able



Human, Individual

Literacy

Digital literacy

Self-regulated learning skills



Social, Community

Problem solving

Scaffolding

Motivation



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Providing evidence-based resources
for educators, students and researchers
to improve achievement and equity in online learning

Thank you!

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