

movinglives  
*forward*

# Online and Hybrid Learning: Instructional Methods that Affect Learning

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# Research on Hybrid Learning

# Mixed Instruction Courses

## Face-to-face and online components

- Hybrid
- Blended
- Flipped
- Inverted
- Supplemental
- Replacement

## Potential to improve learning OR reduce costs

- Fewer limitations
  - Space
  - Pace
  - Time

# Early State of Research

Support for mixed instruction is inconsistent

Inconsistent classifications of courses

- Difficult to find themes in research
- Difficult to meaningfully discuss instructional methods
- Difficult to advance research and practice

Need meaningful classifications

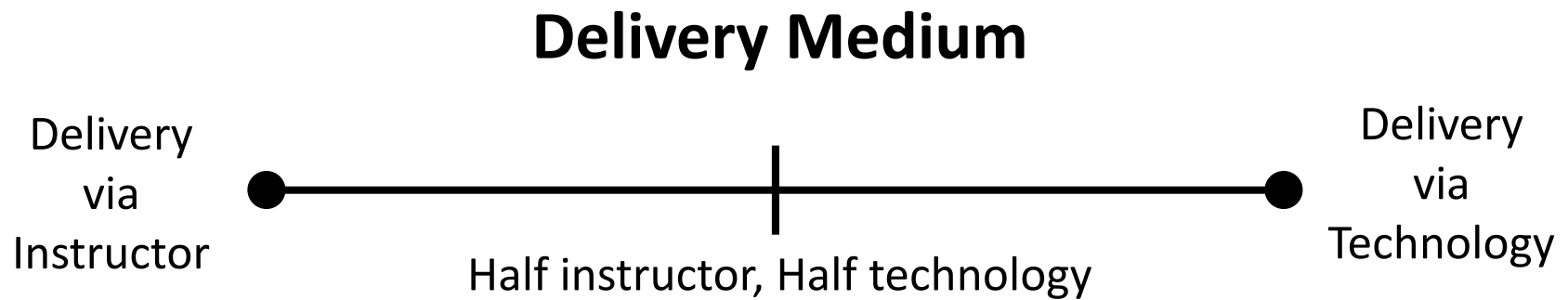
# Creating the Taxonomy

Previous definitions of terms

Common dimensions of definitions

- Delivery Medium
- Instruction Type
- Synchronicity

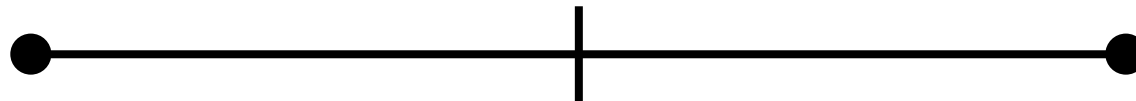
# Taxonomy Dimensions



# Taxonomy Dimensions

## Instruction Type

Receiving  
Content

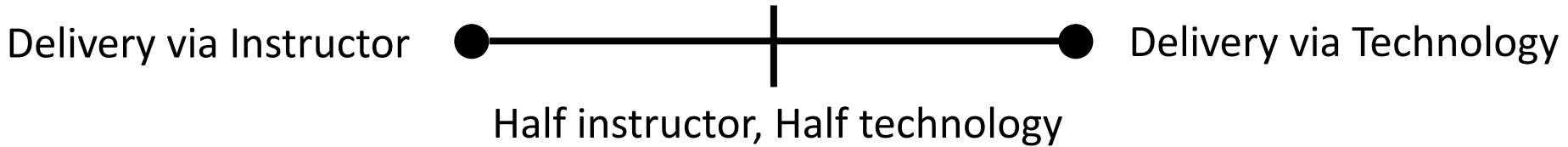


Applying  
Content

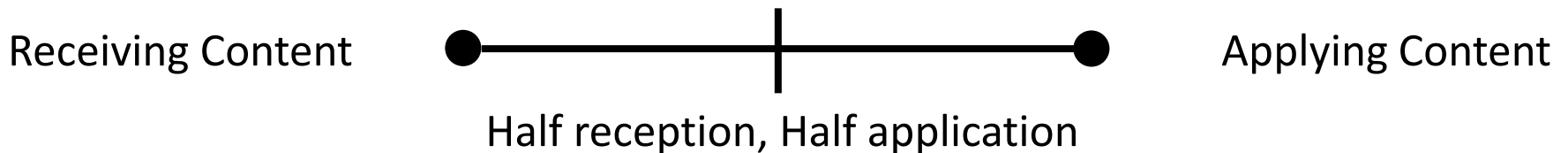
Half reception, Half application

# Taxonomy Structure

## Delivery Medium



## Instruction Type





# Fundamental Instructional Experiences

Delivery via Instructor

Instructor-transmitted



Instructor-mediated



Receiving Content

Applying Content

Technology-transmitted

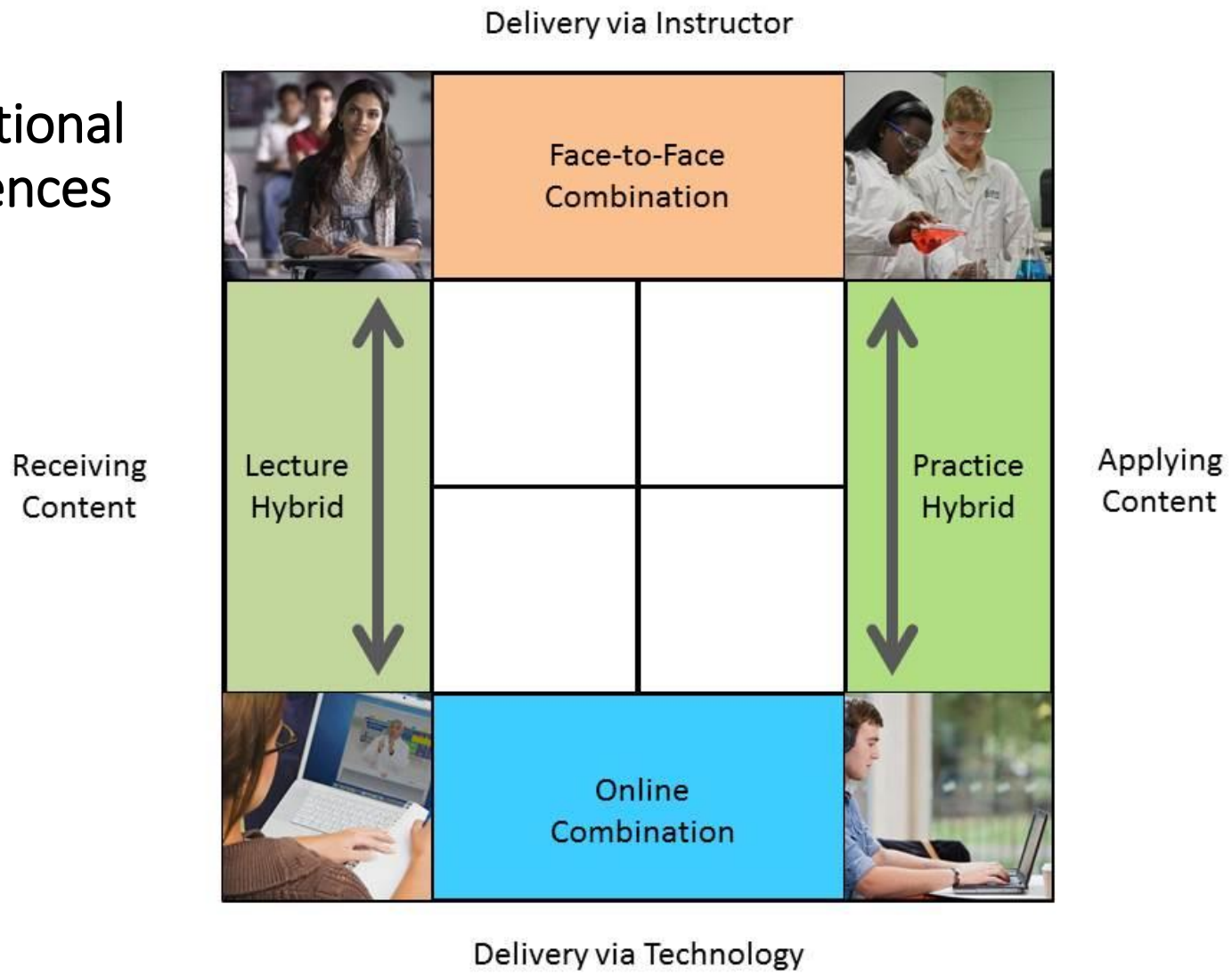


Technology-mediated

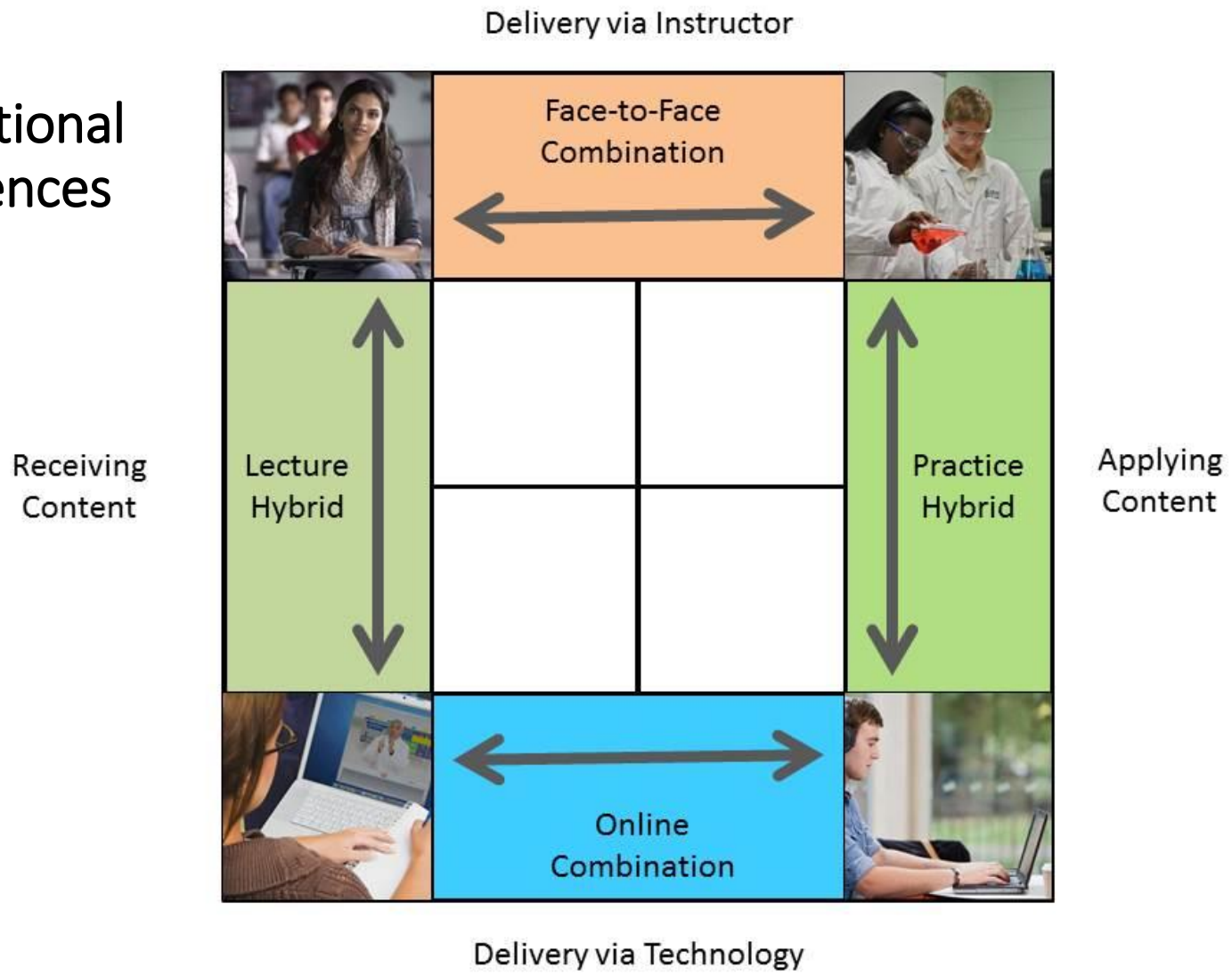


Delivery via Technology

# Paired Instructional Experiences

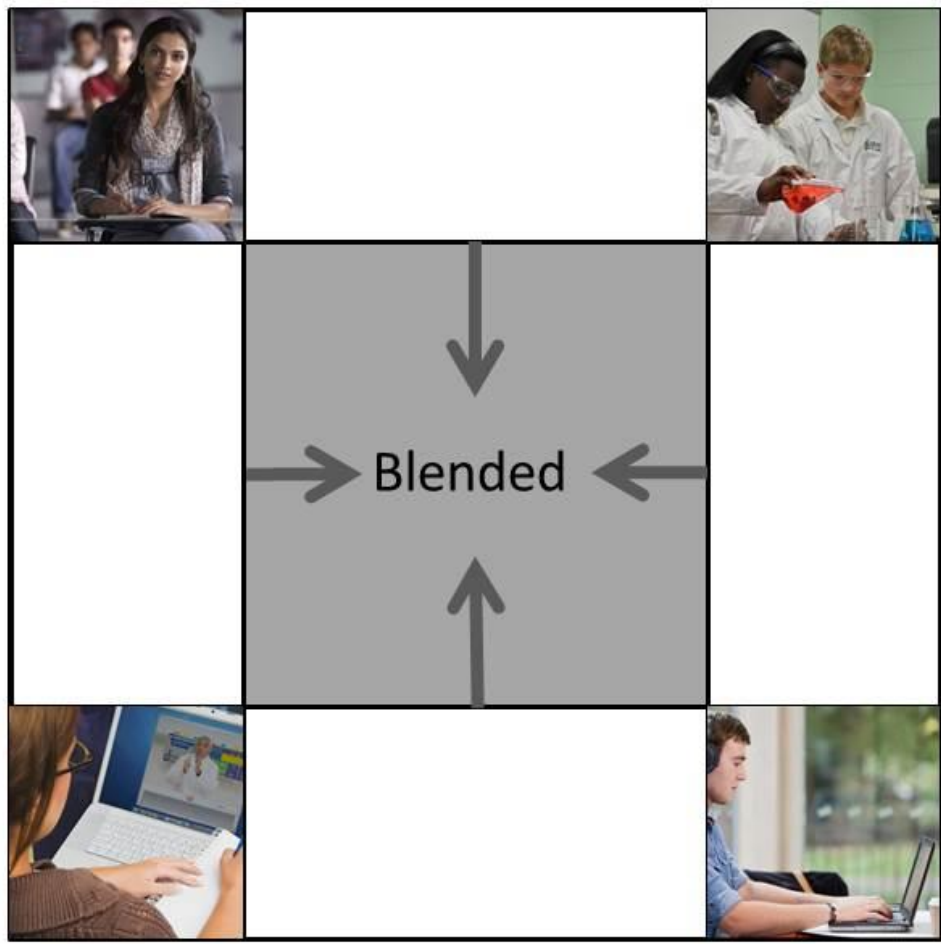


# Paired Instructional Experiences



# Blended Instructional Experiences

Delivery via Instructor

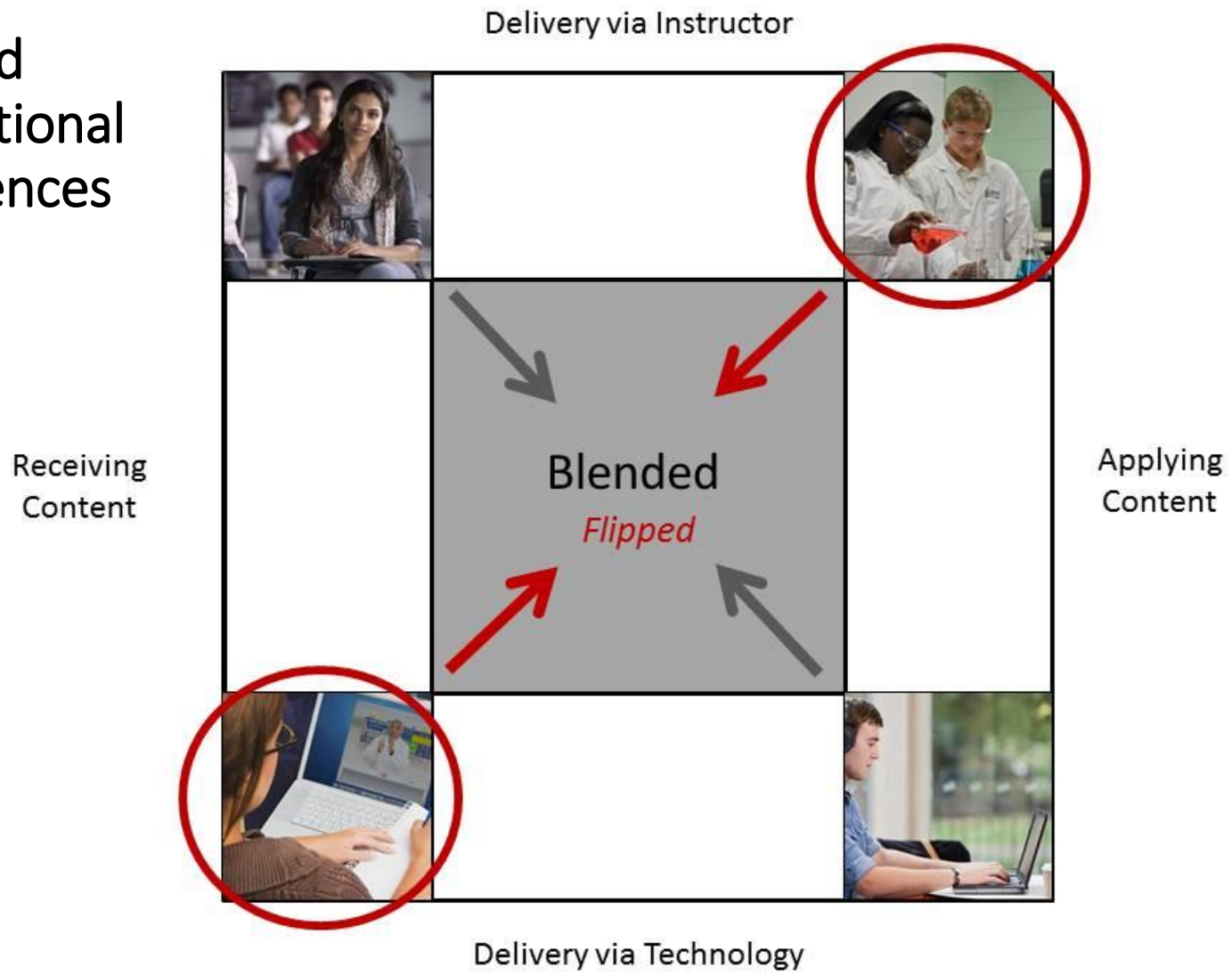


Receiving Content

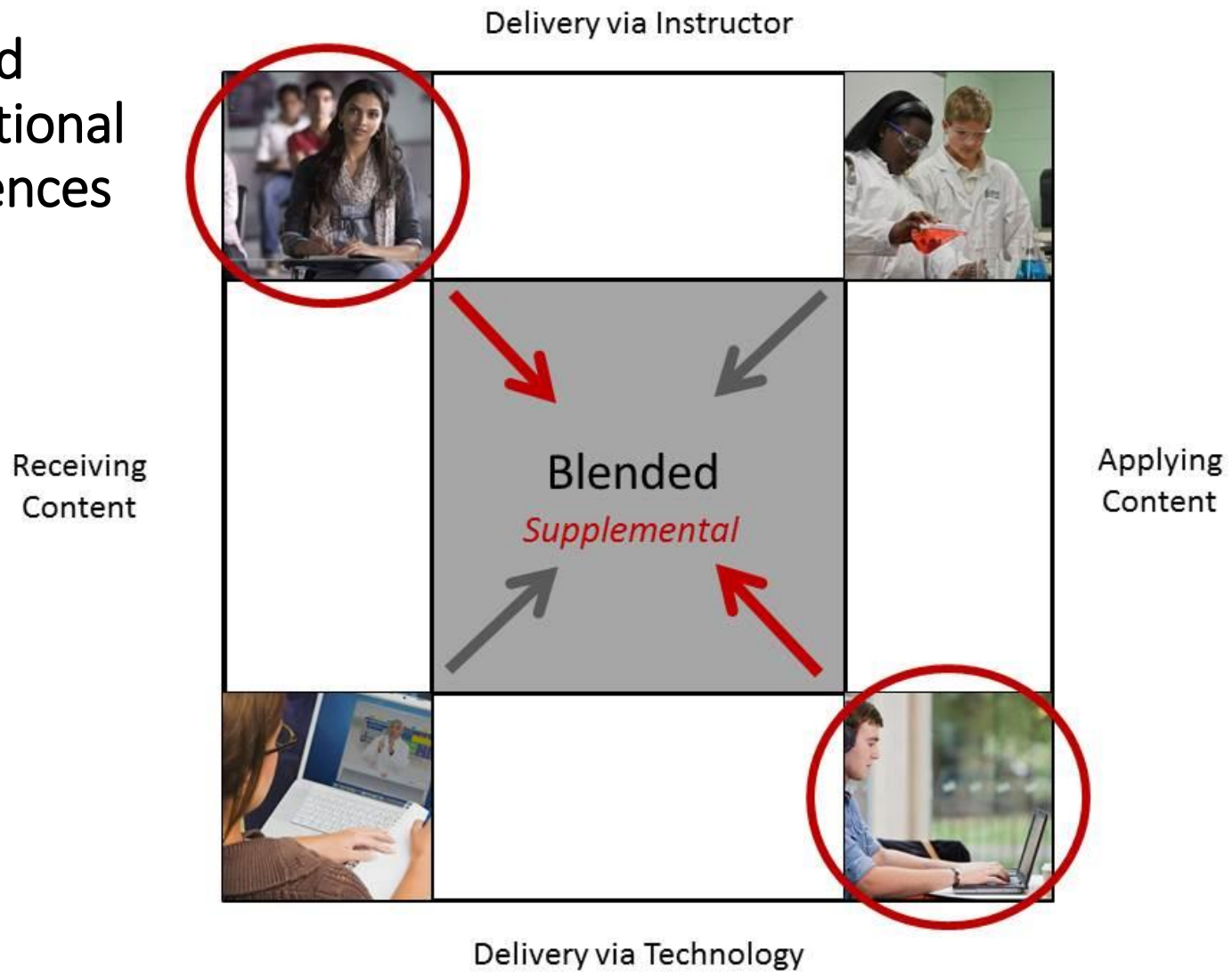
Applying Content

Delivery via Technology

# Blended Instructional Experiences

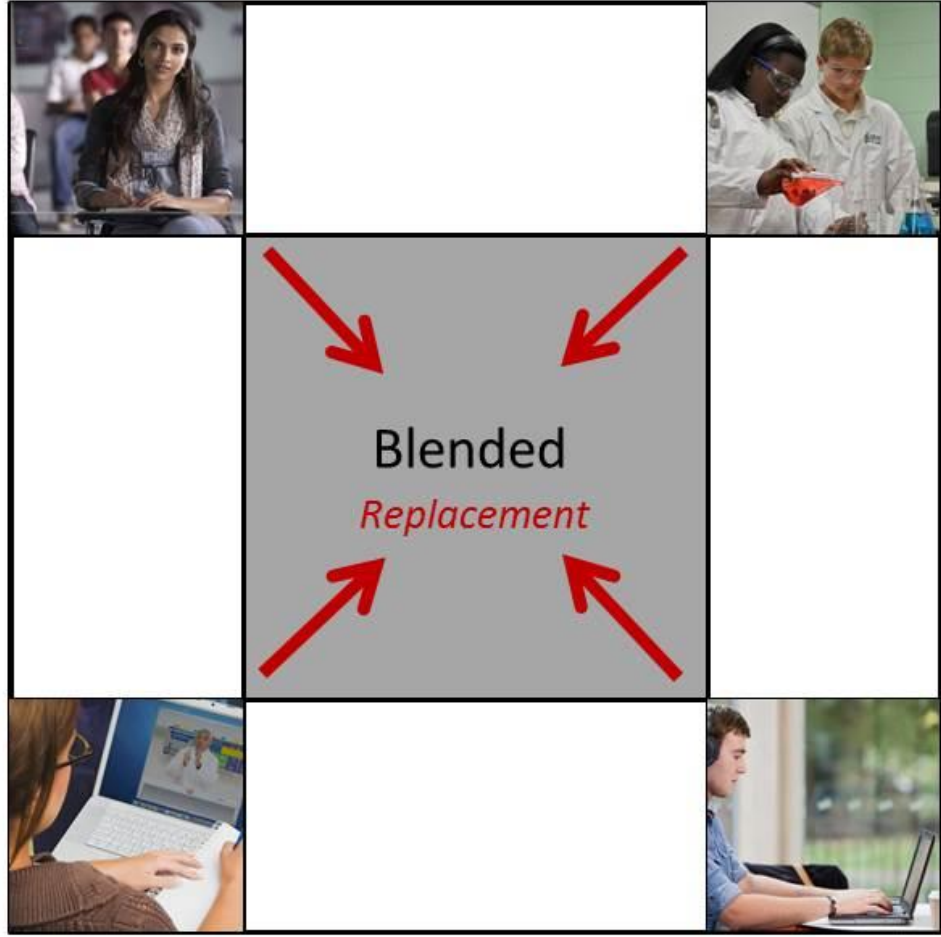


# Blended Instructional Experiences



# Blended Instructional Experiences

Delivery via Instructor

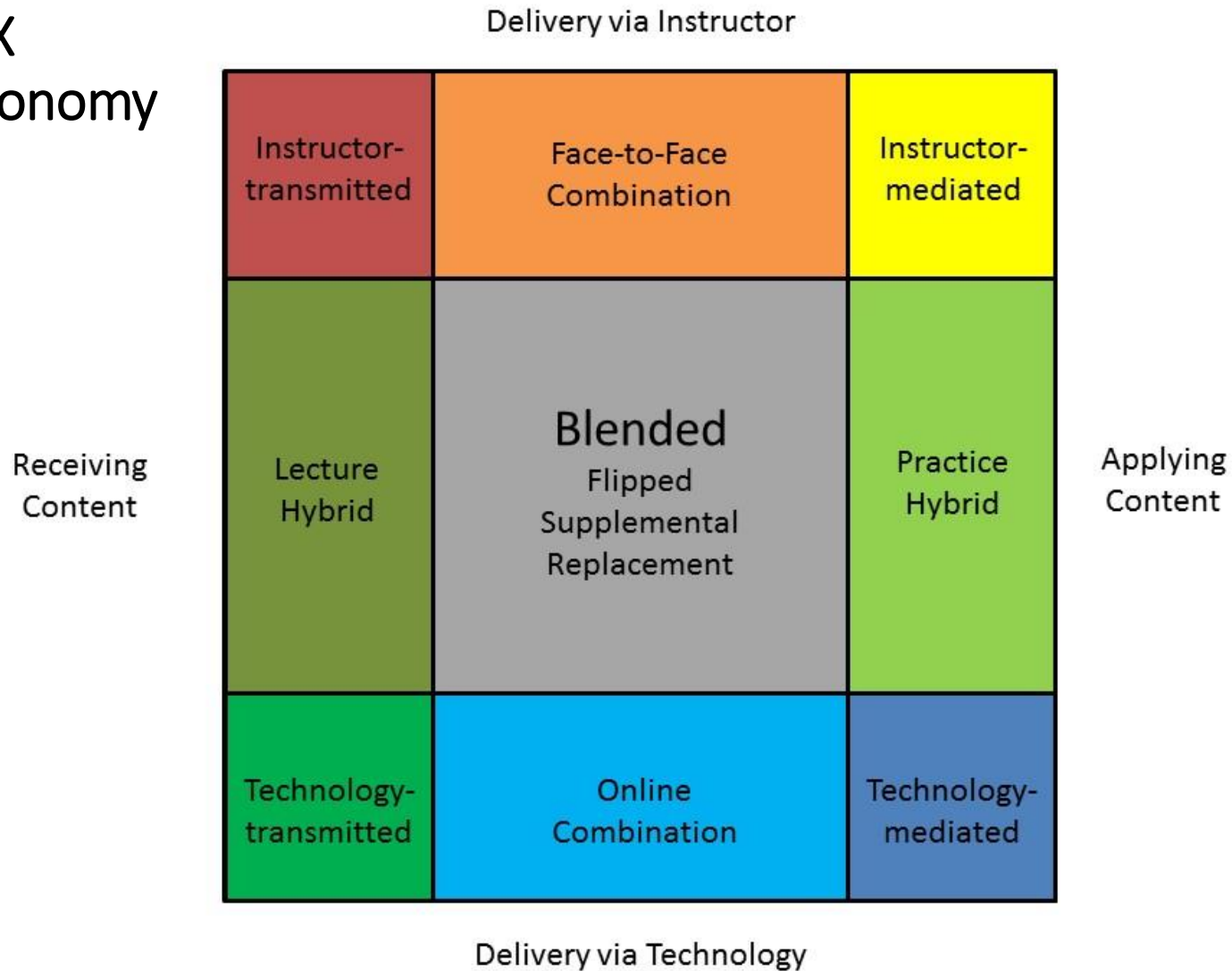


Receiving Content

Applying Content

Delivery via Technology

# MIX Taxonomy





# Analysis

# Methods

Keywords: hybrid, blended, flipped, or inverted

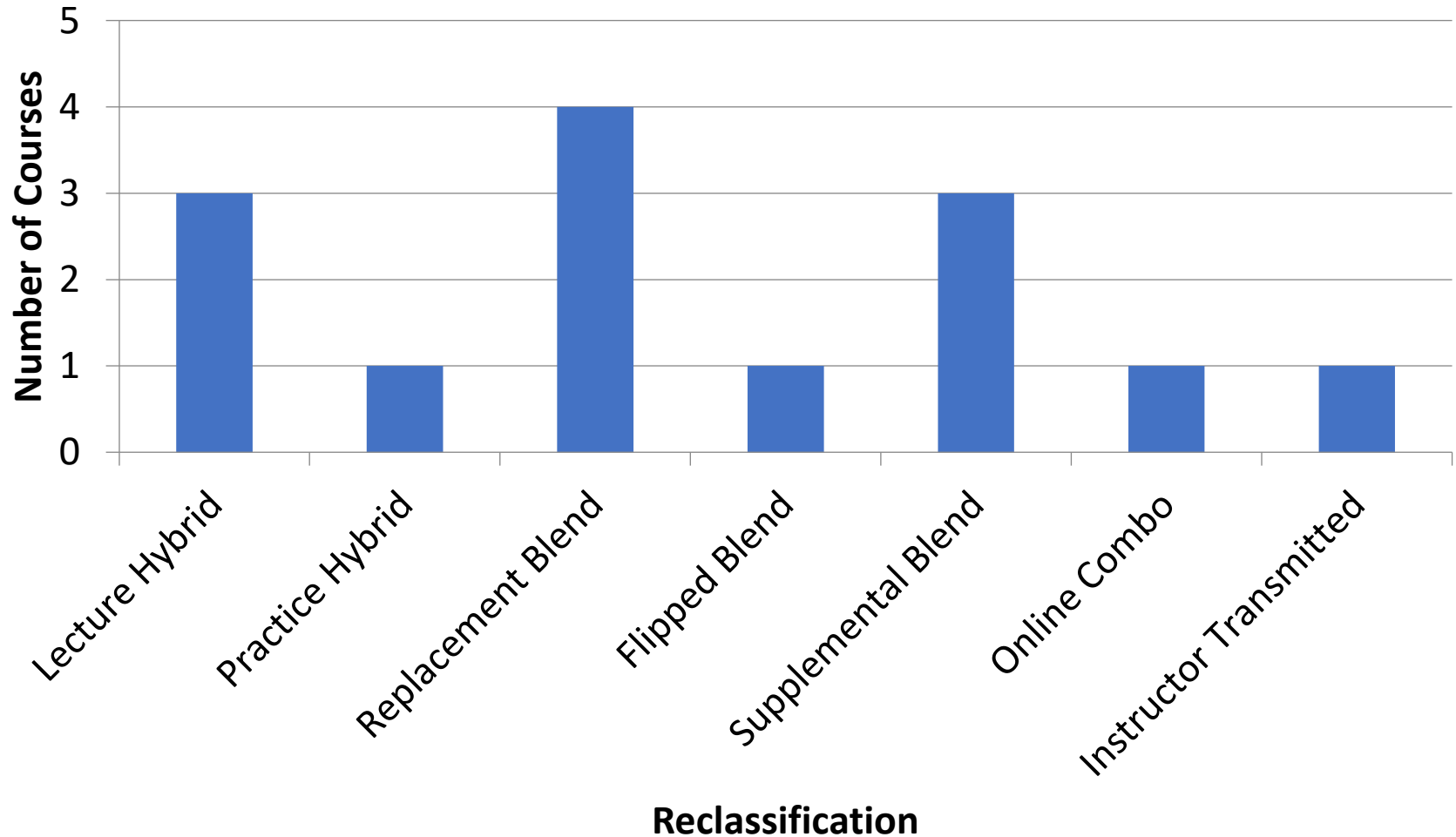
- Journals from 2000-2015
- Education databases and Google scholar

Include quasi-experimental research

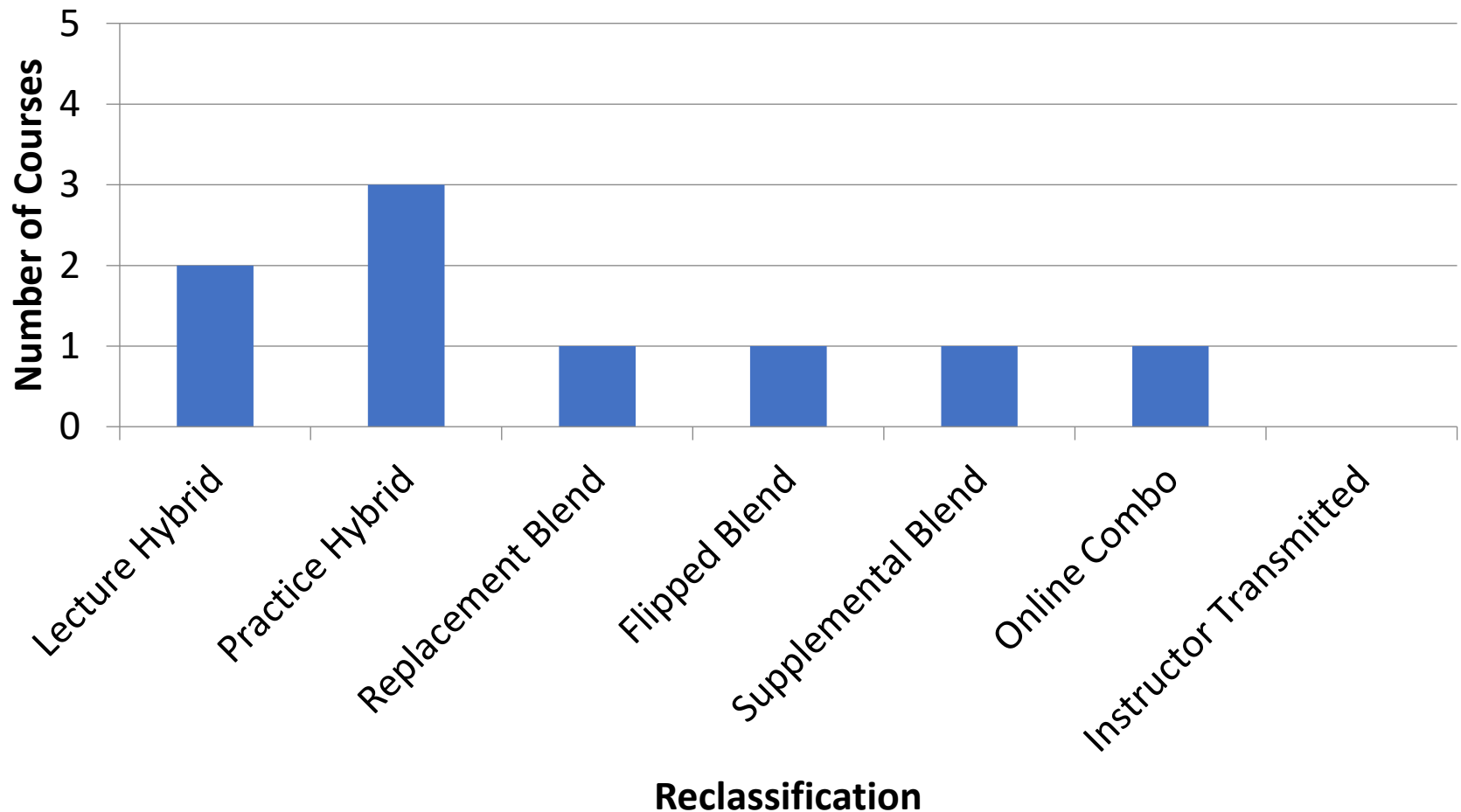
- Included control group (traditionally taught class)
- Measured quantitative learning outcomes
- Higher education courses for credit

N = 49

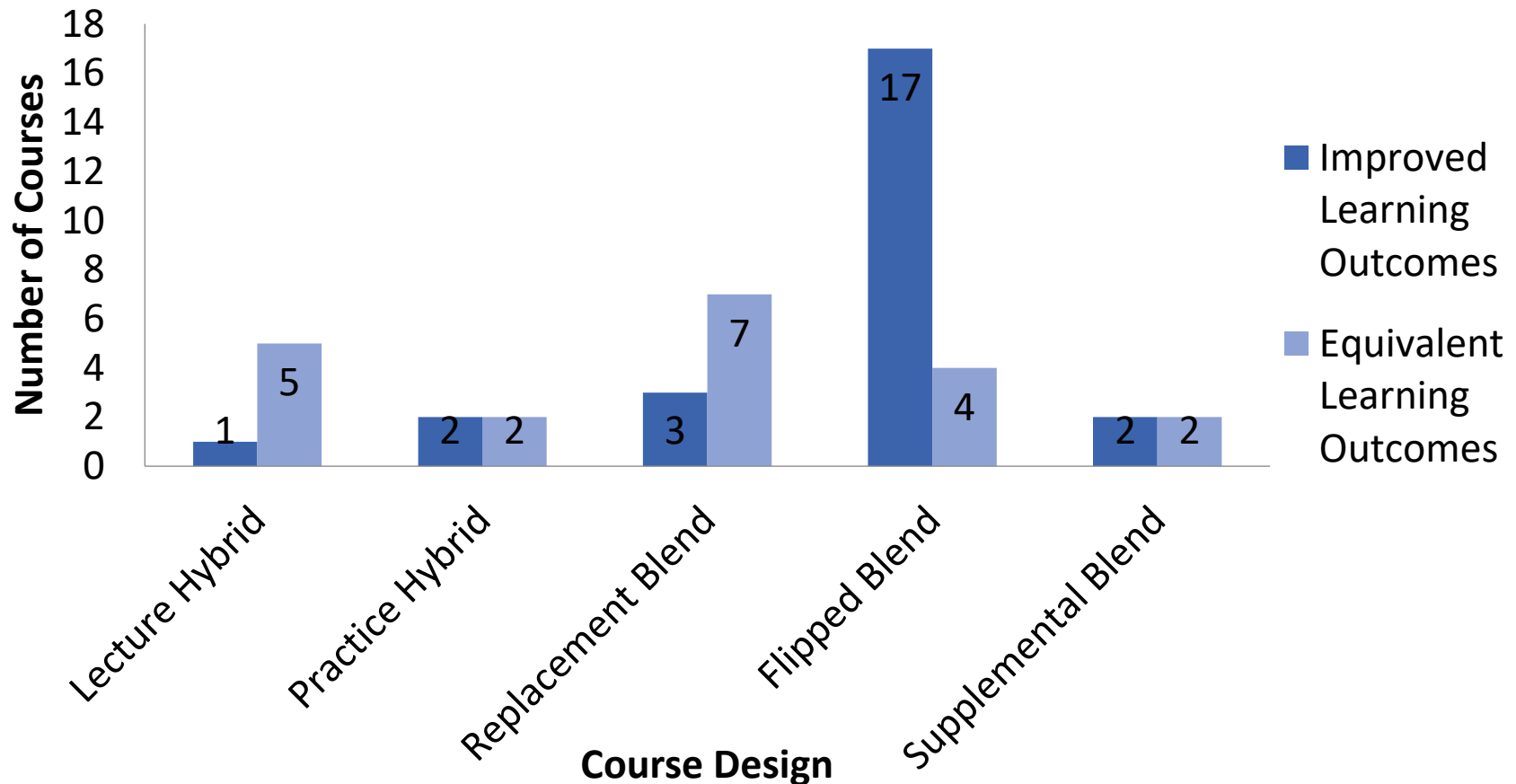
# Reclassified Hybrid Research



# Reclassified Blended Research



# Learning Outcomes of Mixed Instruction



# How Courses Changed

## Moved instruction online

- 19 changed only delivery medium
  - 15 (79%) had equivalent learning outcomes

## Time in class

- 22 reduced time in class
  - 18 (82%) had equivalent learning outcomes
- 27 maintained time in class
  - 23 (85%) improved learning outcomes

# How Courses Changed

## Added feedback during content application

- 30 added feedback in class
  - 23 (77%) improved learning outcomes
  - 23 out of 26 (88%) if feedback was new element

# Areas of Disagreement

- Face-to-face lectures in flipped courses
- Feedback from technology
- Continuing application activities online



But what if I can teach  
online only?

# The Foundations

- Align learning objectives, instruction, activities, assignments, and assessments
- Use good equipment
  - Headphones to avoid echo
  - A good microphone to improve clarity and reduce background noise
- Be consistent in disseminating information
  - There's a higher barrier to asking questions
- Highlight important points verbally and visually

# Promoting Social Learning

- Use video when talking with students whenever possible
- Create ways for students to talk with each other
  - Discussions (though not necessarily require responses)
  - Something that you can't see
  - Provide feedback on assignments, get help during assignments
  - Breakout rooms for small group work (though be wary of graded group work)

# Course Design

- If students never met in-person, do an icebreaker activity
- If students are new to online learning, short and frequent assignments provide more information about how they are doing
- Quick feedback on assignments increases instructor presence, even if it's just "Good job"
- Try different media (video vs. audio, sync vs. async)
  - More options available than face-to-face

# Thank You!

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