Customizing Students' Educational Experiences

Mark Ludorf
Professor of Psychology
Stephen F. Austin State University
mludorf@sfasu.edu

Customizing Students' Educational Experiences

- Why?

- How?

- Results?

Customizing Students' Educational Experiences

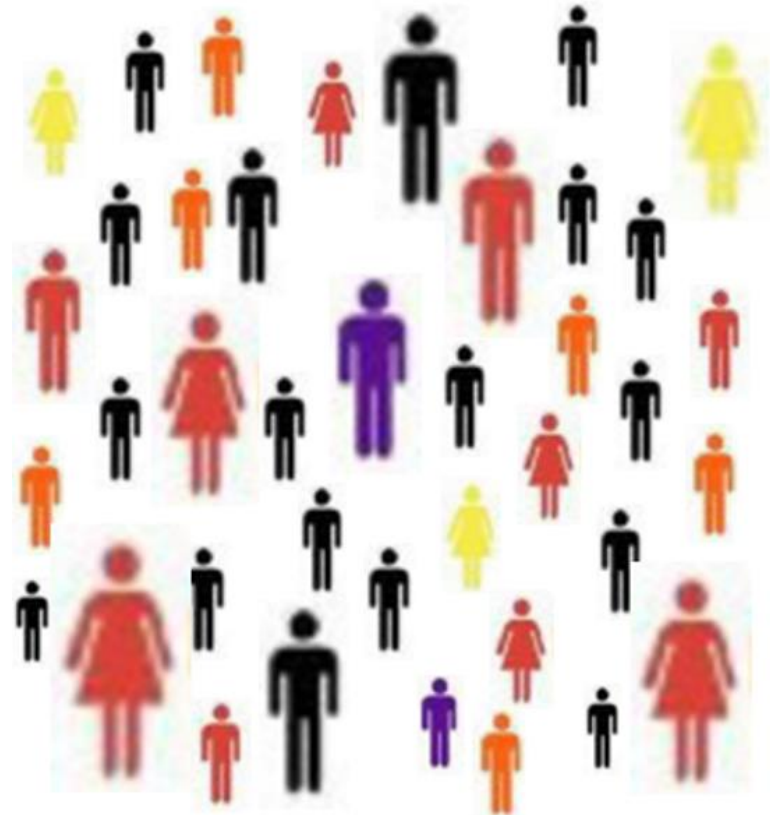Why?

Student Heterogeneity

1822

2022

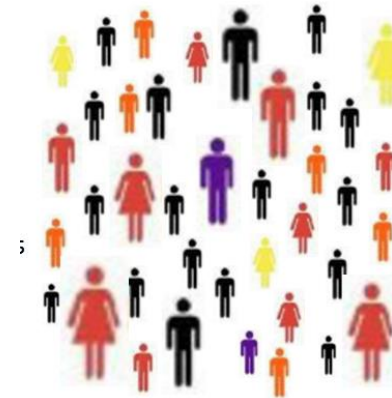# Customizing Students' Educational Experiences

Undifferentiated

No strategies to address student heterogeneity

All students complete same assessments
e.g., 3 tests, 2 papers, final examination, discussions, etc.

Differentiated

Strategies to address student heterogeneity

Each student selects one or more assessments to complete
e.g., tests and papers only
Or
e.g., papers, final examination, and discussions

Customizing Students' Educational Experiences

How?

Possible Assessments
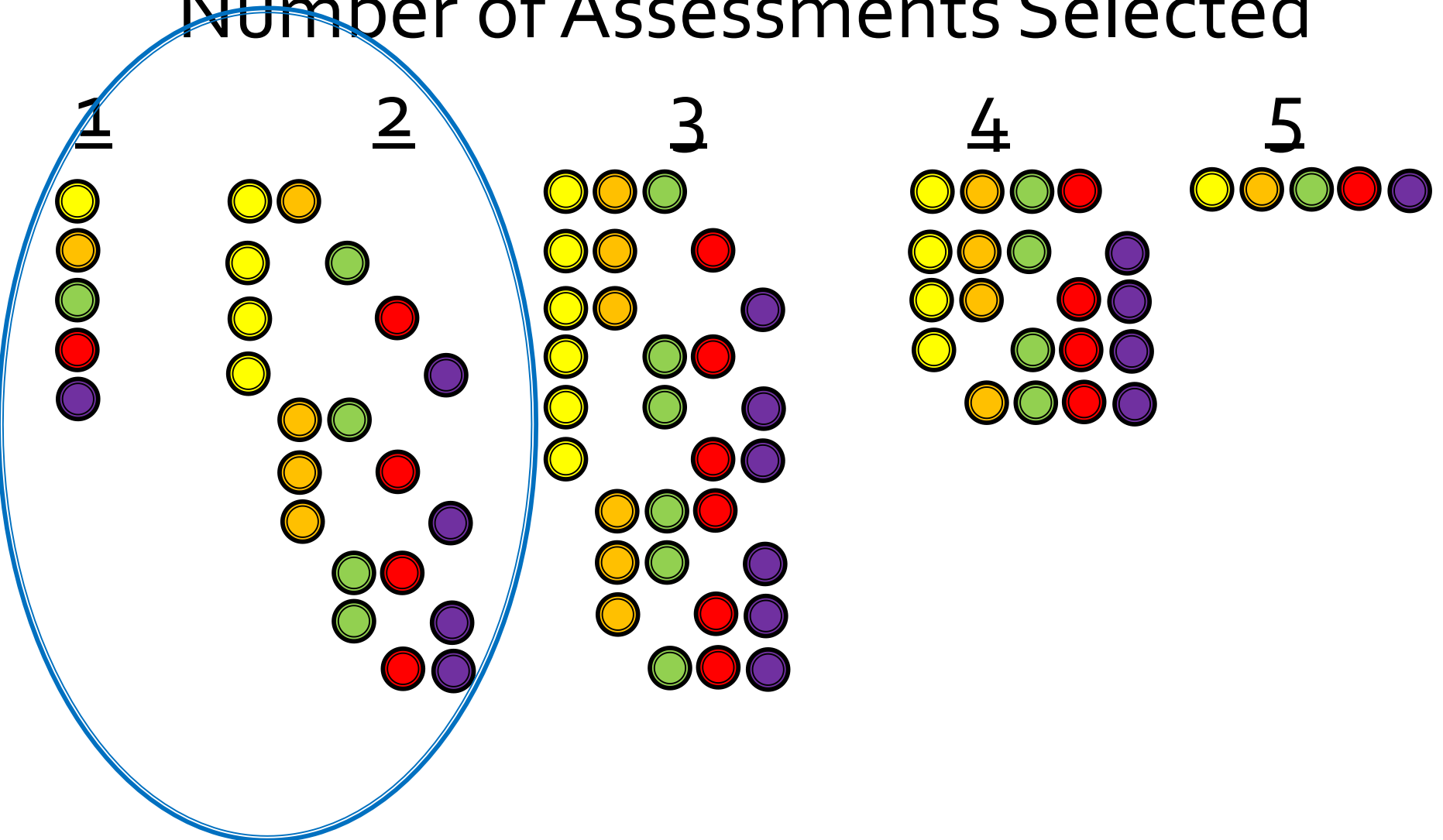
Quizzes

Exams

Discussions

Blogs

Paper

Possible Assessment Combinations (*N* = 31)

Number of Assessments Selected

Customizing Students' Educational Experiences

- Other Possible Customizations
  - Allow students to select on a week-by-week basis the assessments they will complete
  - Allow students to assign point values to each assessment activity
  - Disaggregate the entire educational process (**input** (teaching), **output** (assessment); and **management** (interaction with students)

Customizing Students' Educational Experiences

Results

Results-1

$\overline{X}$ Performance	Overall Average ($\overline{X}$)					Overall Variability (s)
	2/3 Assessments = 77.24 < 4/5 Assessments = 89.10*					2/3 Assessments = 14.08 > 4/5 Assessments = 4.92*
	Chapter Quizzes	Chapter Discussion	Section Quizzes	Laboratory Reports	Final Examination	
2/3	70.94	85.99	61.25	89.72	64.75	
4/5	92.29	94.17	86.42	84.31	84.75	

Study 2: Assigned versus Selected Assessments -*The Perfect Experiment*

Participants

Data were received from 43 students enrolled in two sections (*N* = 21 and 22, respectively) of a senior level online *History and Systems of Psychology* course.

Procedures

- **Students in Section 1 assigned assessments (i.e., quizzes and discussions).**
- **Students in Section 2 selected which assessments to complete.**
- **All students taught in same *classroom*.**

Data and Analyses

- **Quiz, Discussion, and Final Paper performance recorded.**

Results-2

	Quiz		Discussion		Final Paper	
	Selected	**Assigned**	**Selected**	**Assigned**	**Selected**	**Assigned**
Average	*80.58*	*73.47^*	*82.15*	*70.03^*	78.40	78.40
Standard Deviation	**10.31**	**21.32***	*20.29*	*28.91*	**9.65**	**16.08**
N	21	22	16	22	21	19
		*p < .05		*^p < .17*		

Qualitative Results

Conclusions

- **Students generally had a positive attitude** about being able to select their assessments (e.g., *Being able to choose which assessments one wants to be graded on gives the student a feeling of control over the material to a certain degree*.), though some had **mixed attitudes** (e.g., "*More complicated than it should be at first, glad students were given options regarding the weight of their chosen assessments.*")

- Students felt **empowered in the learning process** since they were **not "forced" to complete assessments** which did not match their perceived strengths.

- Allowing students to customize their assessment plans **addresses student diversity**.

- **Artificial Intelligence (AI)** will shape the education of the future. **AI** will be used to easily assess the level a student is at and assign the appropriate **input** and **output** for each individual student. What role will professors play?

Thanks

Mark Ludorf
mludorf@sfasu.edu