

Identifying elearning student needs through learner profiling: An exploratory, two-step cluster analysis study

Experience from Univ. Texas at Brownsville,
U.S.A.

Presenters

Sam PAN

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Background

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- Archival data

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- EDUCAUSE Center for Applied Research (ECAR) student technology survey 2013

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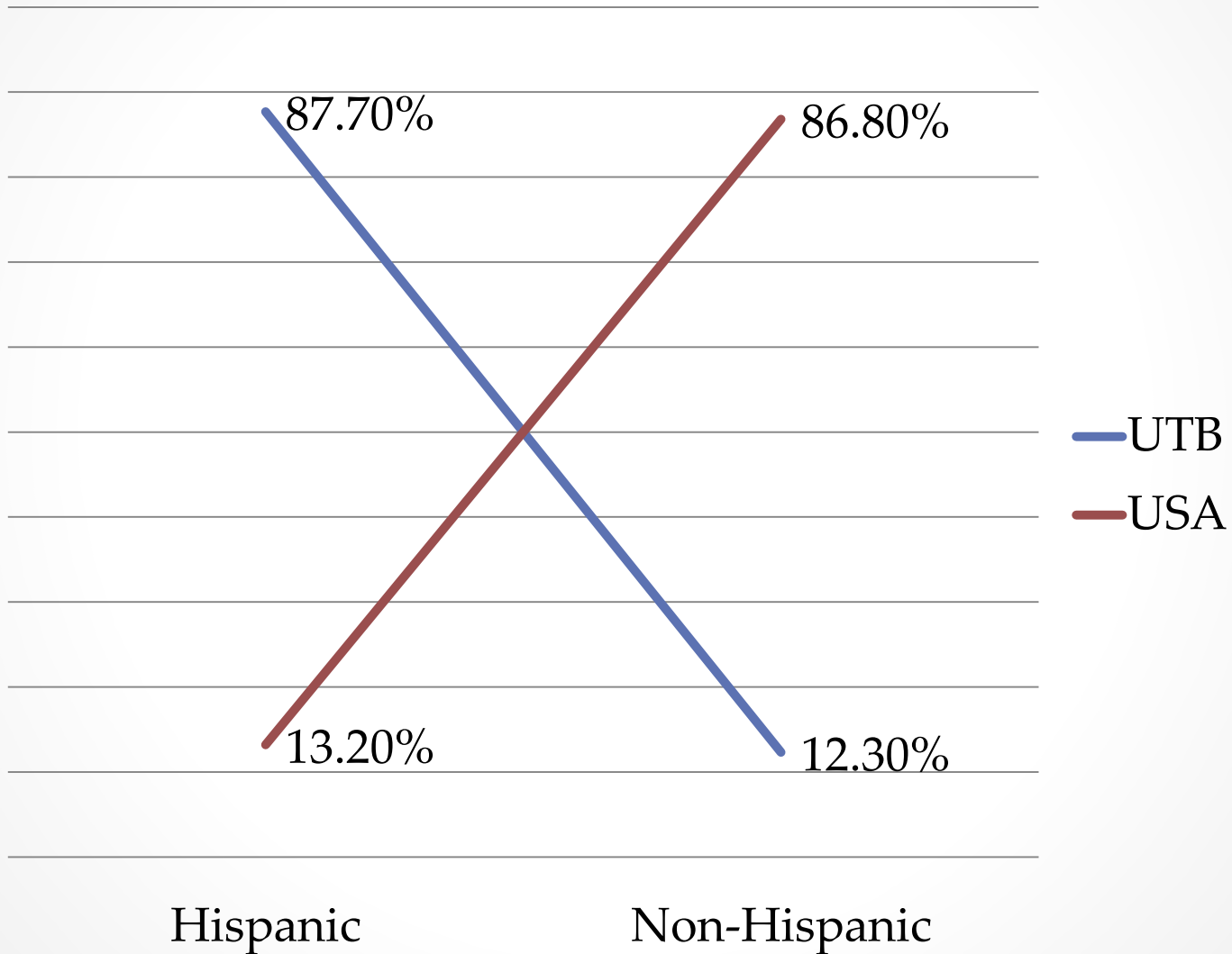
Background

- Archival data
- EDUCAUSE Center for Applied Research student technology survey 2013
- Web questionnaire using branching or skipping logic
- About 1900 students

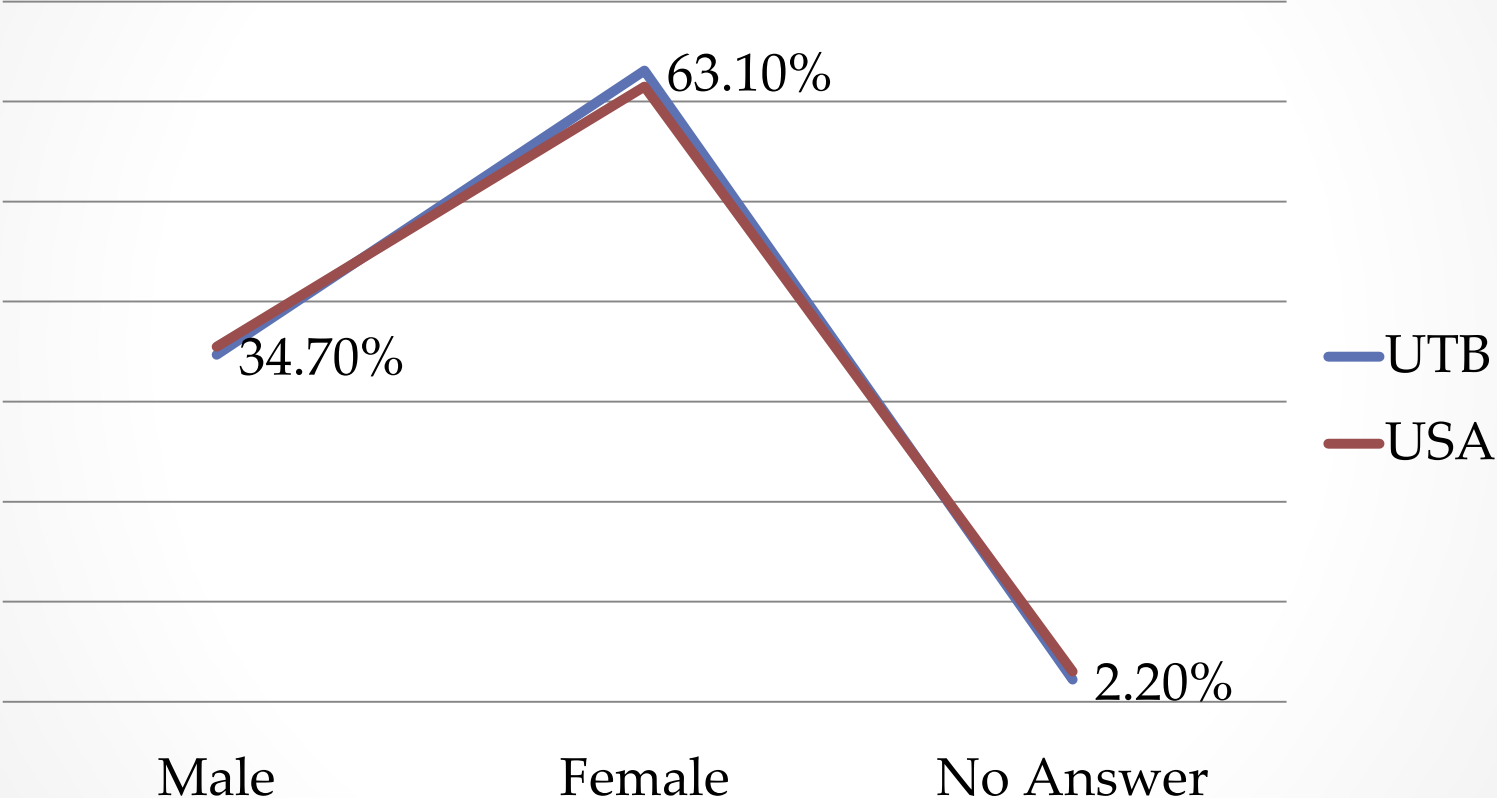
Background

- Archival data
- EDUCAUSE Center for Applied Research student technology survey 2013
- Web questionnaire using branching or skipping logic
- About 1900 students
- Mostly Hispanic...

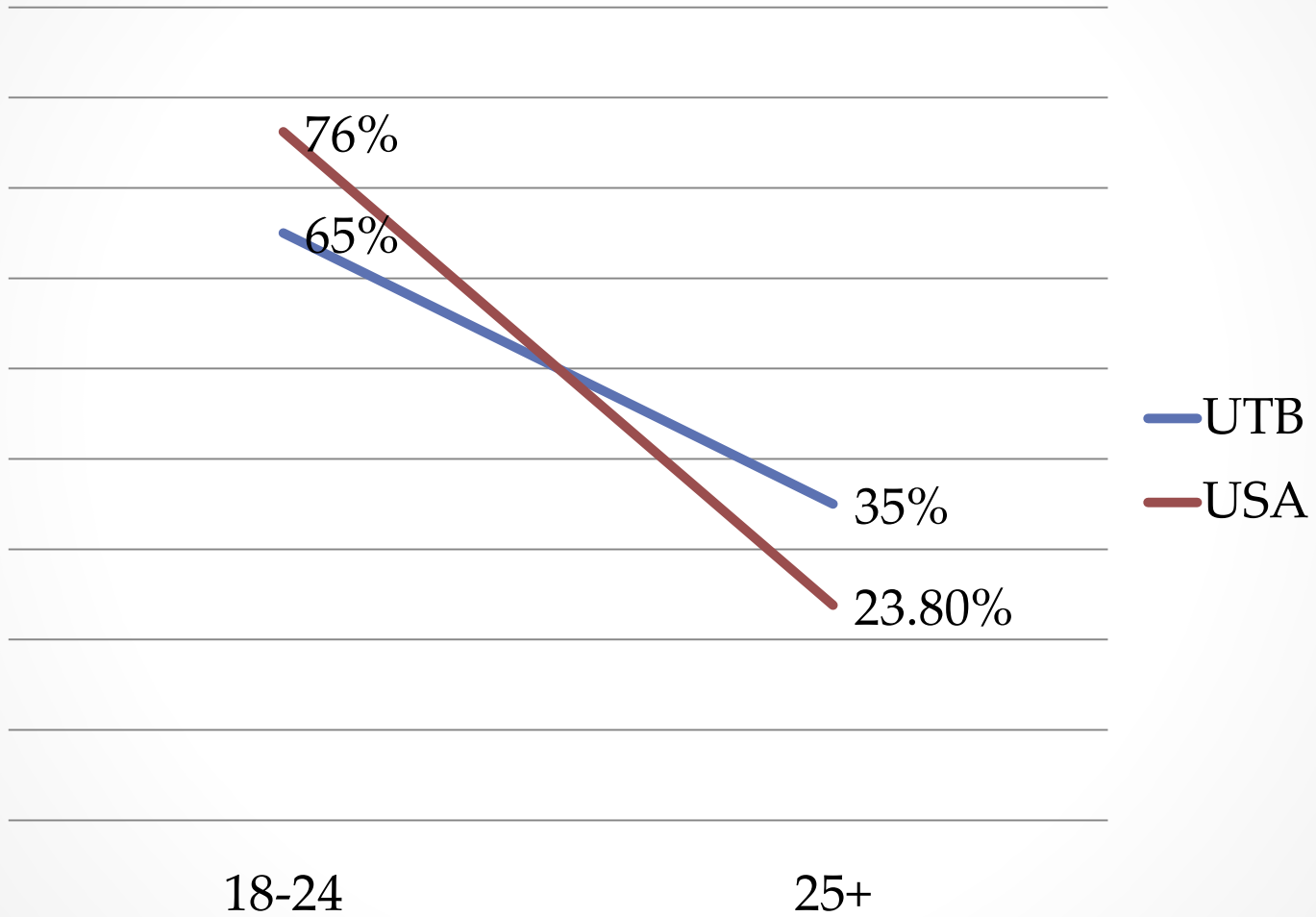
Hispanic Ratio



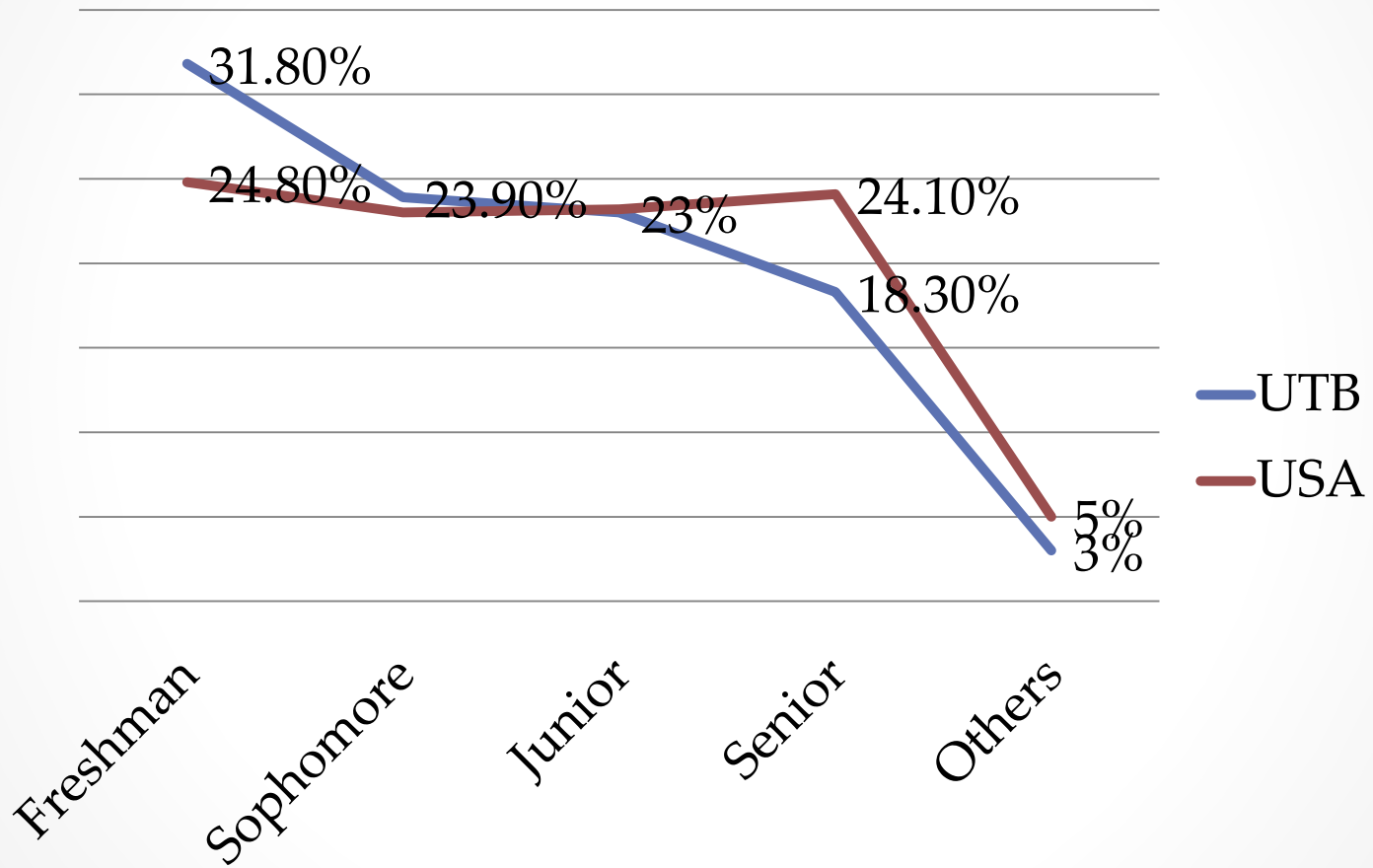
Gender



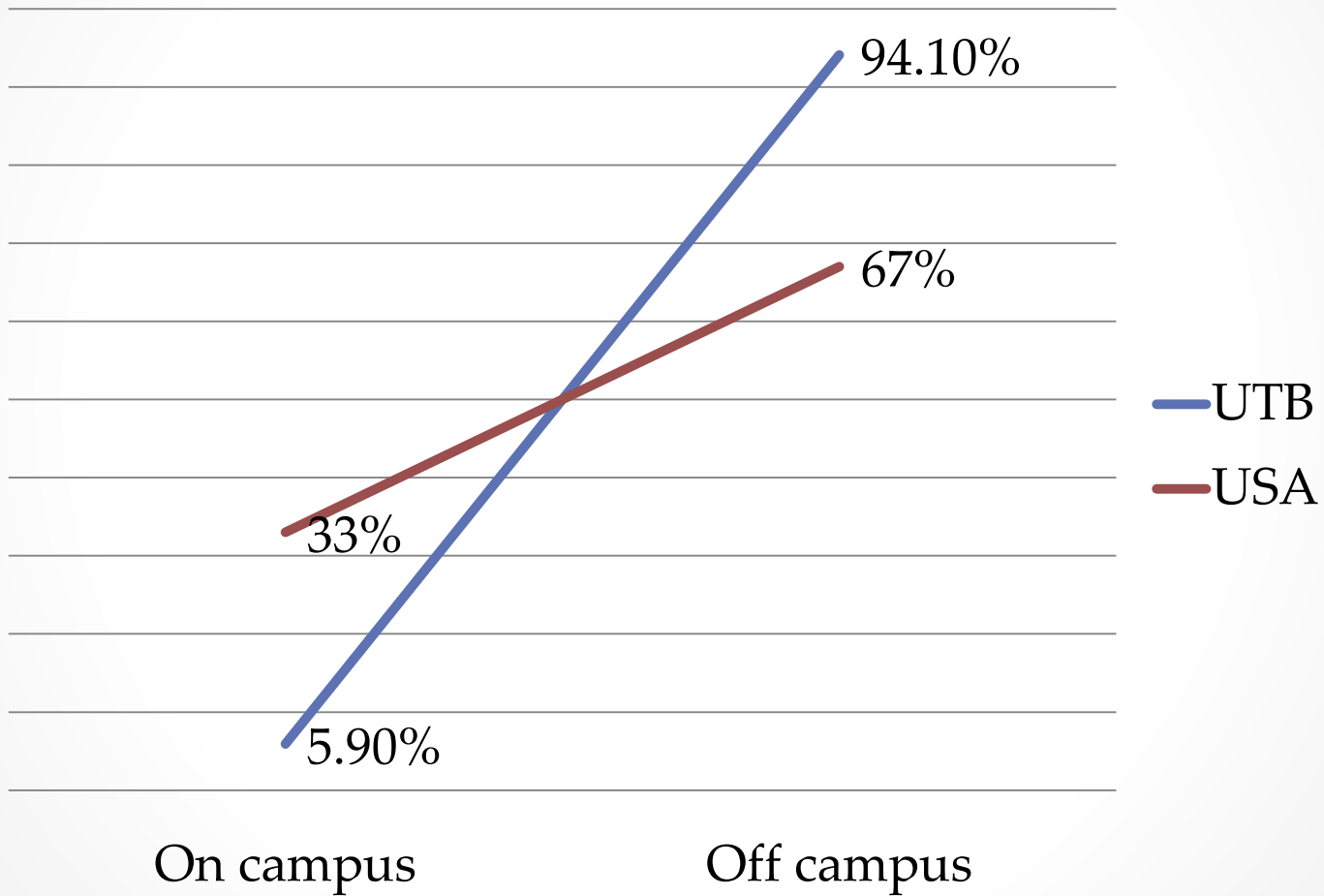
Age



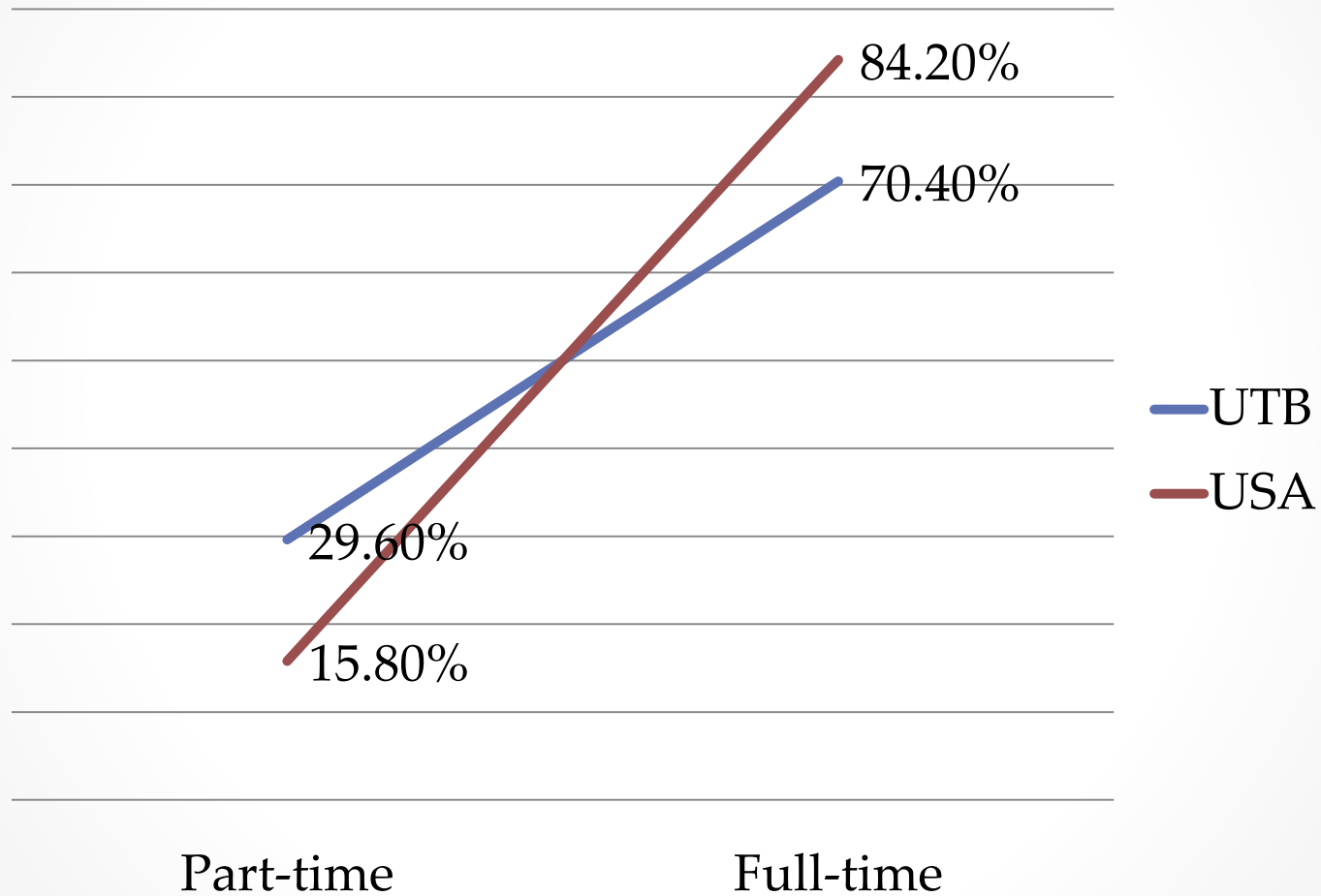
Class Standing



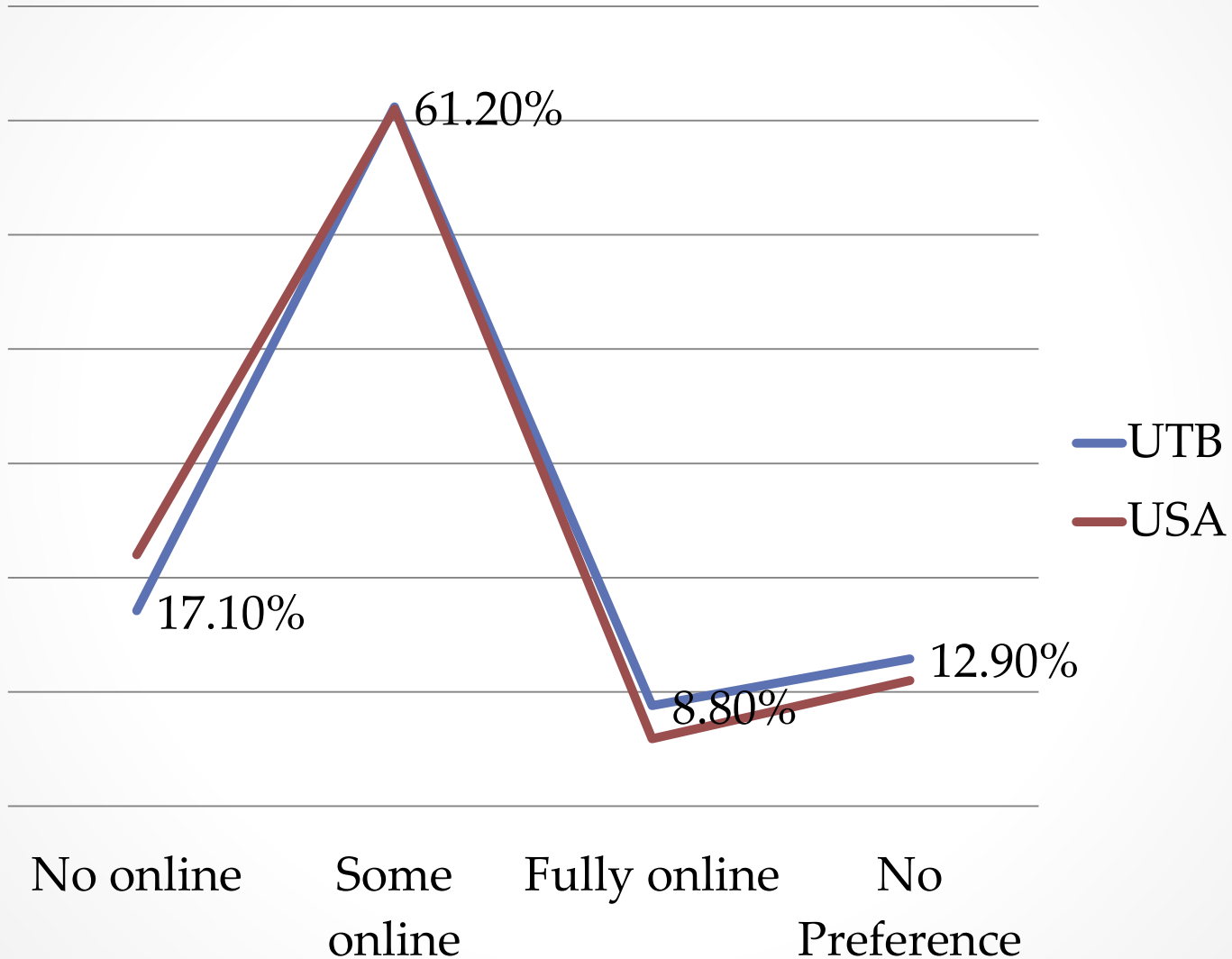
Live On/Off Campus



Part-time/Full-time



Learning Env.: Learn Most



CMS is rated **very or extremely**
important tool to achieve the
academic success

UTB 85% (U.S.A. 70%)

Goals

1. *Follow up on relationship between (a) learner preference in types of elearning courses, (b) affinity for technology, and (c) perceived separation of school life and social life*

Goals

2. *Explore plausible patterns (profiles) based on two learner characteristics/behaviors (i.e., perceived distance between social life and school life and perceived affinity for technology) and their relationship with choices of learning environments where students learn most.*

$$P = .01 * A - .35 * D1 - .13 * D2 - .31 * D3 + 3.449, R^2 = .02, F(4, 1747) = 8.451, p < .01$$

P = separation of school life and social life

A = Affinity for technology

D1 = Dummy vari. for hybrid group

D2 = Dummy vari. for Web group

D3 = Dummy vari. for no preference group

Goals

- 3. Provide recommendations for policy makers of campus technology*

Research Questions

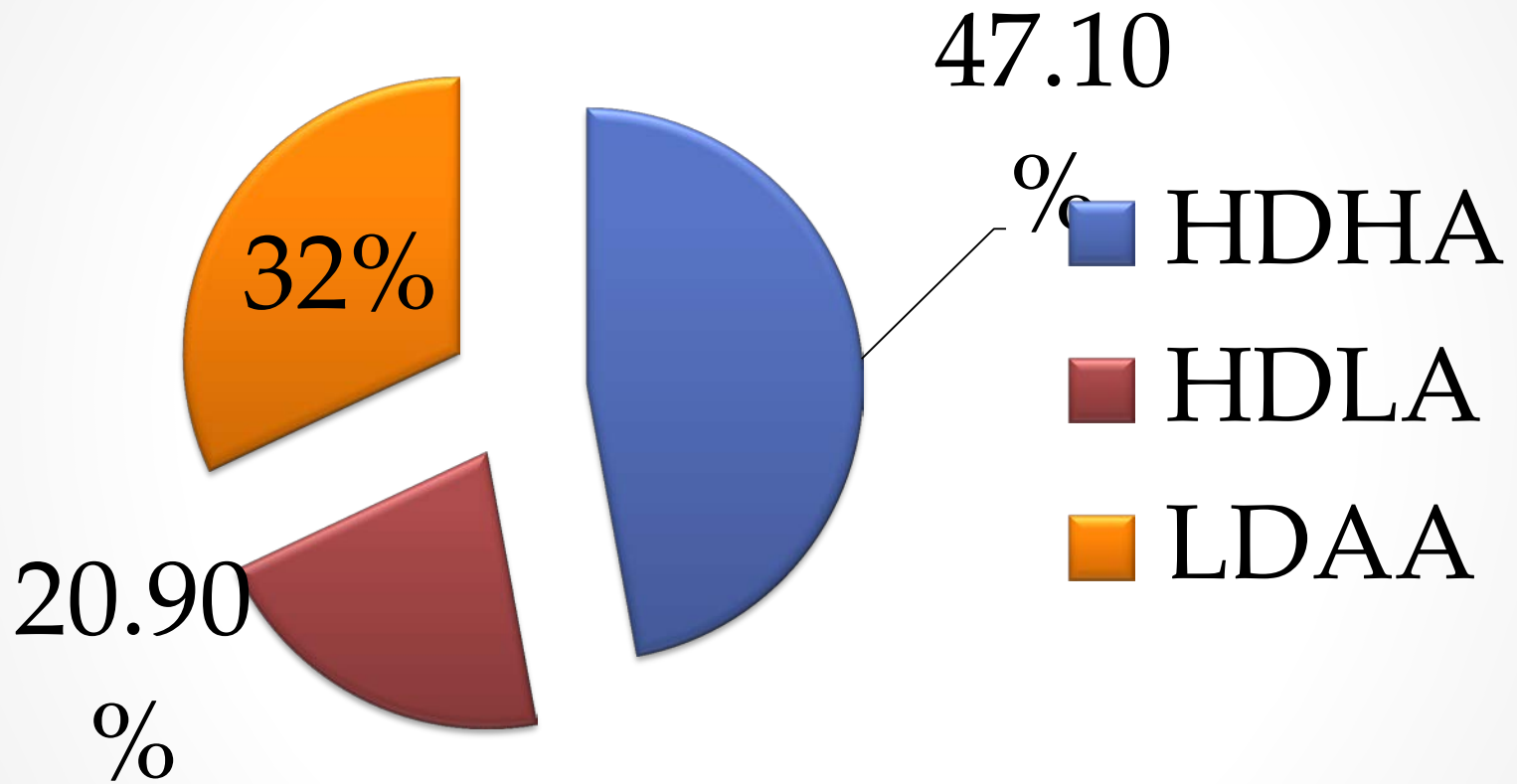
1. Given learner affinity for technology and perceived separation of school life and social life, what are plausible learner profiles?

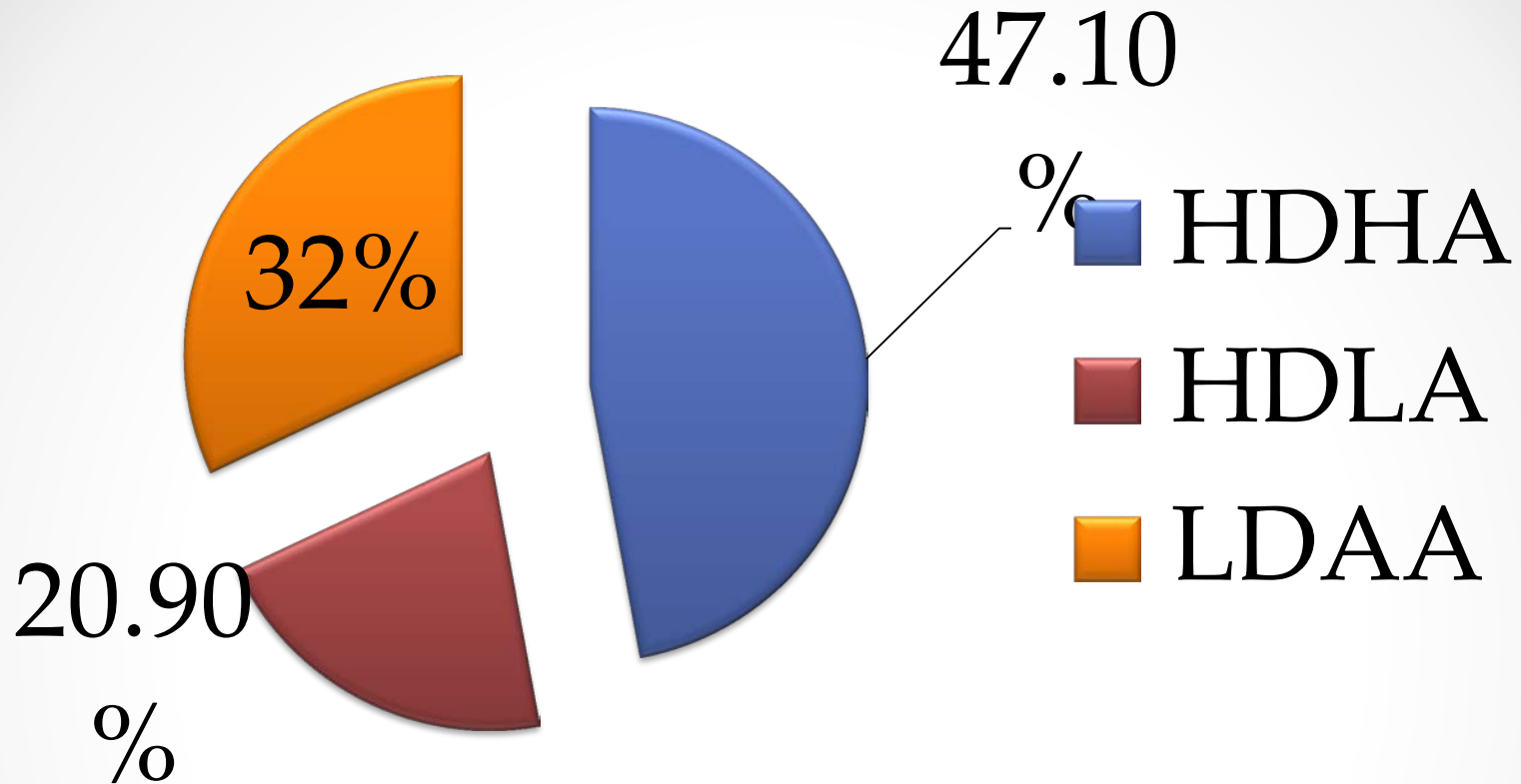
Research Questions

1. Given learner affinity for technology and perceived separation of school life and social life, what are plausible learner profiles?
2. Is there any difference between learner groups in how they perceive elearning as the environment where they learn most?

Research Questions

1. Given learner affinity for technology and perceived separation of school life and social life, what are plausible learner profiles?





Silhouette = .5

Ratio of largest cluster to smallest cluster =
2.26

N = 1,700

Research Questions

2. Is there any difference between learner groups in how they perceive elearning as the environment where they learn most?

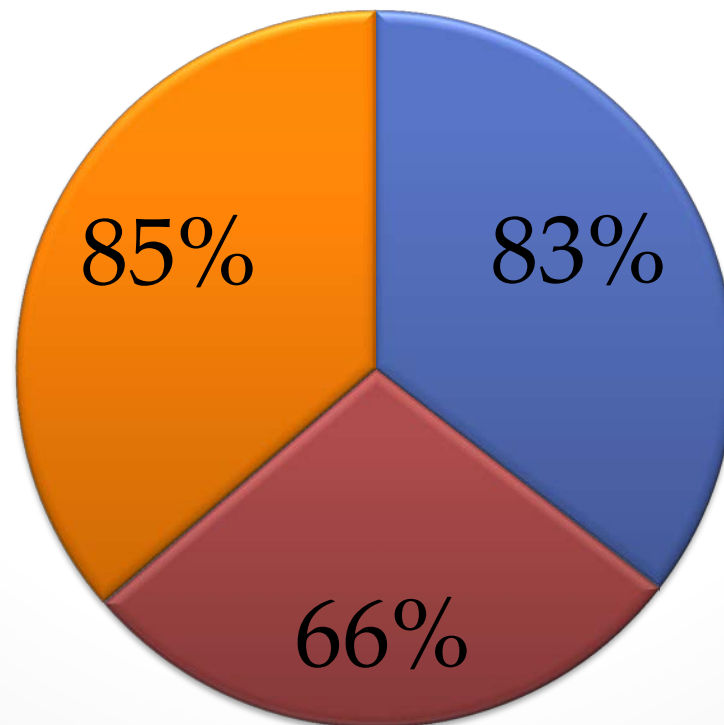
There is a significant difference in the way students in three different profiles perceive elearning as the environment where they learn most, Pearson X^2 (2, N=1481) = 48.27, $p < .001$, Cramér's $V = .18$.

Pairwise comparison using the Holm's Sequential Bonferroni Method

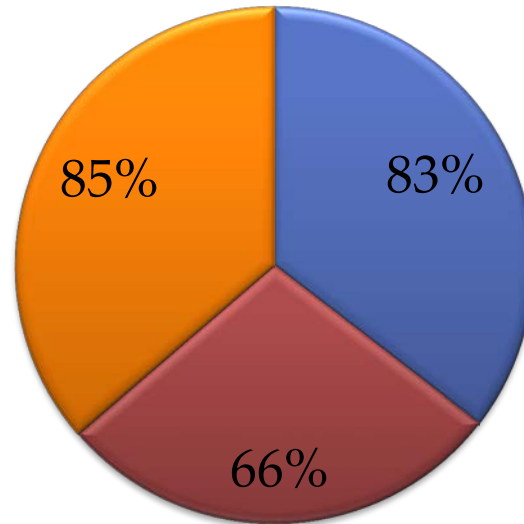
Comparison	Pearson X^2	<i>P value</i> (α)	Cramer's V
HDLA vs. LDAA	38.59*	< .001 (.017)	.23
HDHA vs. HDLA	35*	<.001 (.025)	.19
HDHA vs. LDAA	1.04	.308 (.050)	.03

Proportions of students who perceived elearning is the environment they learn most

■ HDHA ■ HDLA ■ LDAA



■ HDHA ■ HDLA ■ LDAA



1. $LDAA/HDLA = .85/.66 = 128.79\%$

2. $HDHA/HDLA = .83/.66 = 125.76\%$

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Probability of a student in favor of elearning was 1.29 times more likely when the student was LDAA, as opposed to HDLA.

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$$2. \text{ HDHA/HDLA} = .83/.66 = 125.76\%$$

Probability of a student in favor of elearning was 1.26 times more likely when the student was HDHA, as opposed to

- HDLA.

Recommendations

If the institution is dedicated to building an elearning enterprise, student affinity for technology shall be attended to.

- Putting more course content (lectures) online (Instructor)
- Use more technology to communicate campus student life (University)
- Use more technology for non-instructional purposes (University)
- Use more technology to communicate course matters (Instructor)

Primary Contact

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School/Life Separation

