

Students' Utilization of Flexibility of Time and Place in a Fully Online Academic Course

Dr. Tal Soffer, Tali Kahan, Prof. Rafi Nachmias

Tel Aviv University

June 2016, Florence

Background

Background

- Differences between students:
 - background
 - interests
 - motivations
 - knowledge
 - learning styles
 - available time
 - geographic location



Flexible learning

- Flexible learning addresses differences between students by providing varying degrees of choices to learners regarding:

What

Where

When

How

Why

to learn

Background

The Study

Findings

Discussion

Flexible learning

- There are diverse approaches to flexible learning:

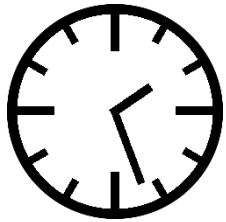
Authors	Categories of flexibility
Collis, B., Vingerhoets, J., Moonen, J. (1997)	Time, content, entry requirements, instructional approach and resources, delivery and logistics
Collis, B., Moonen, J. (2001)	Technology, Pedagogy, implementation strategy and institutional framework
Bergamin, P. B., Ziska, S., Werlen, E., Siegenthaler, E. (2012)	Time, space, methods, learning styles, content, organization and infrastructure, and requirements



Flexibility of time and place

Flexibility of time:

- ✓ Time of interacting with the course
- ✓ Duration of learning
- ✓ Pace of learning



Flexibility of place:

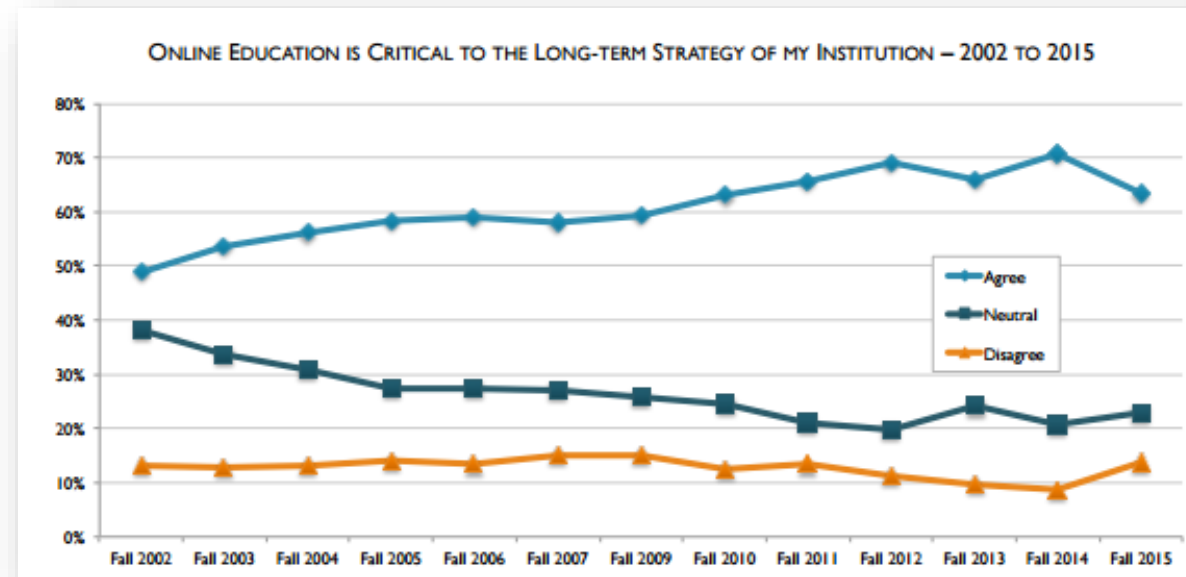
- ✓ Where the learning occurs
(i.e. online vs. face-to-face)



Studies indicated that flexibility is perceived as beneficial to online instruction and constitutes a key factor in students' enrolment to online courses.

Online academic courses

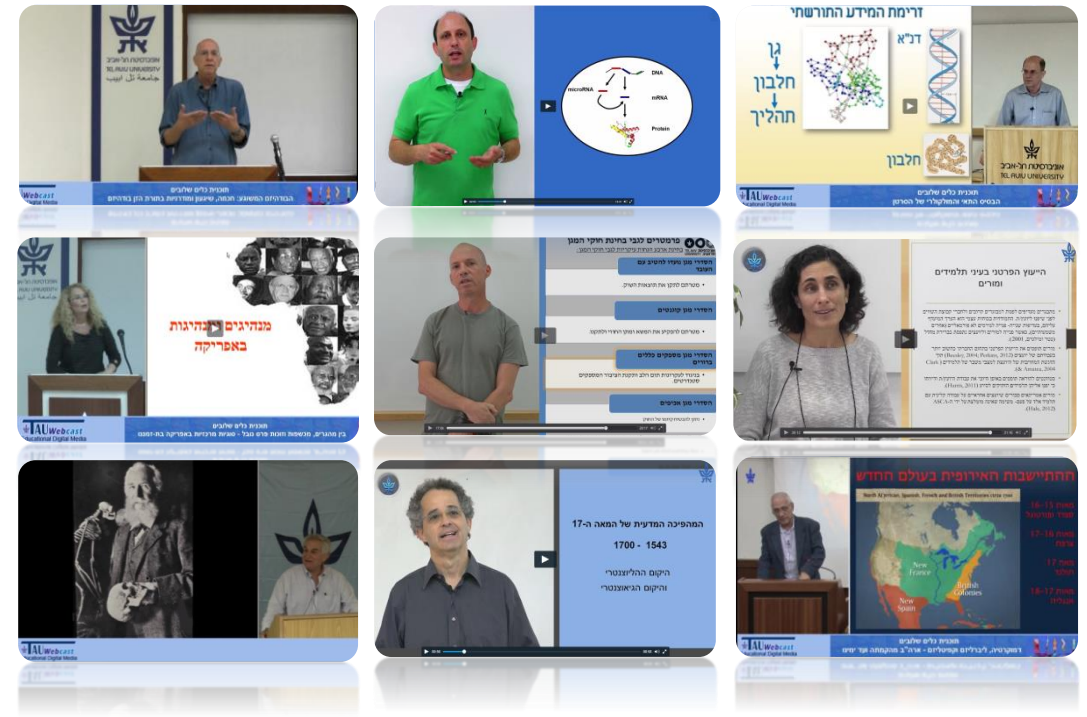
- Rapid growth has been exhibited in online academic courses offered by higher education institutions.



<http://onlinelearningsurvey.com>

Online courses at Tel Aviv university

- Online courses from diverse disciplines:
 - Exact Sciences
 - Life sciences
 - Medicine
 - Education
 - Humanities
 - Law
 - Arts



Background

The Study

Findings

Discussion

The Study

The study

Goal:

To gain insight into how students utilize the flexibility of time and place which is provided in an online course.

Research Questions:

1. How do students utilize flexibility of time and place in a fully online academic course?
2. What types of students can be identified based on their learning time and place?



Research field

- One fully online academic course in Humanities.
- 195 undergraduate students.
- The course lasted 13 weeks.
- The course was delivered via the university LMS.
- The course contained 14 learning units with:
 - ✓ video lectures
 - ✓ lectures summaries & supplementary materials
 - ✓ discussion forums
 - ✓ online assignments
 - ✓ a final exam on campus



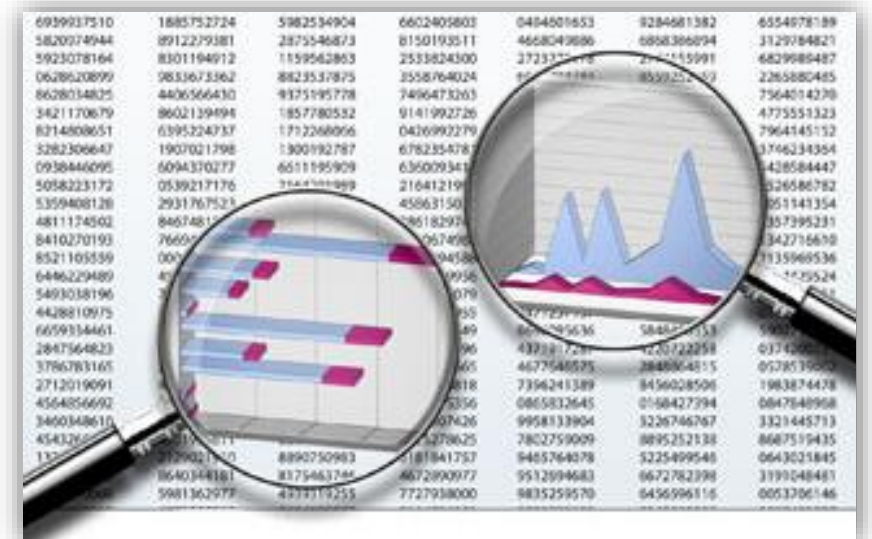
Flexibility of time and place in the course

	Flexible	Inflexible
Time	<ul style="list-style-type: none">• Learning resources available from course beginning• No limitations regarding learning times• No limitations regarding learning pace	<ul style="list-style-type: none">• Assignments deadlines• Exam date
Place	<ul style="list-style-type: none">• No limitations regarding learning place	<ul style="list-style-type: none">• Final exam on campus



Method

- Educational Data Mining
- Descriptive statistics
- K-Means cluster analysis



Background

The Study

Findings

Discussion

Method – variables

- The following variables were computed per student:

Time variables

Place variables

Semester Quarters		Days		Hours		Place	
<i>% actions in</i>	<i>Quarter 1 Quarter 2 Quarter 3 Quarter 4 After end of semester</i>	<i>% activity on</i>	<i>Sundays Mondays Tuesdays Wednesdays Thursdays Fridays Saturdays</i>	<i>% actions in</i>	<i>Morning (06:00 - 12:00) Noon (12:00 - 18:00) Evening (18:00 - 24:00) Night (24:00 - 06:00)</i>	<i>% action</i>	<i>On campus Out of campus</i>

Background

The Study

Findings

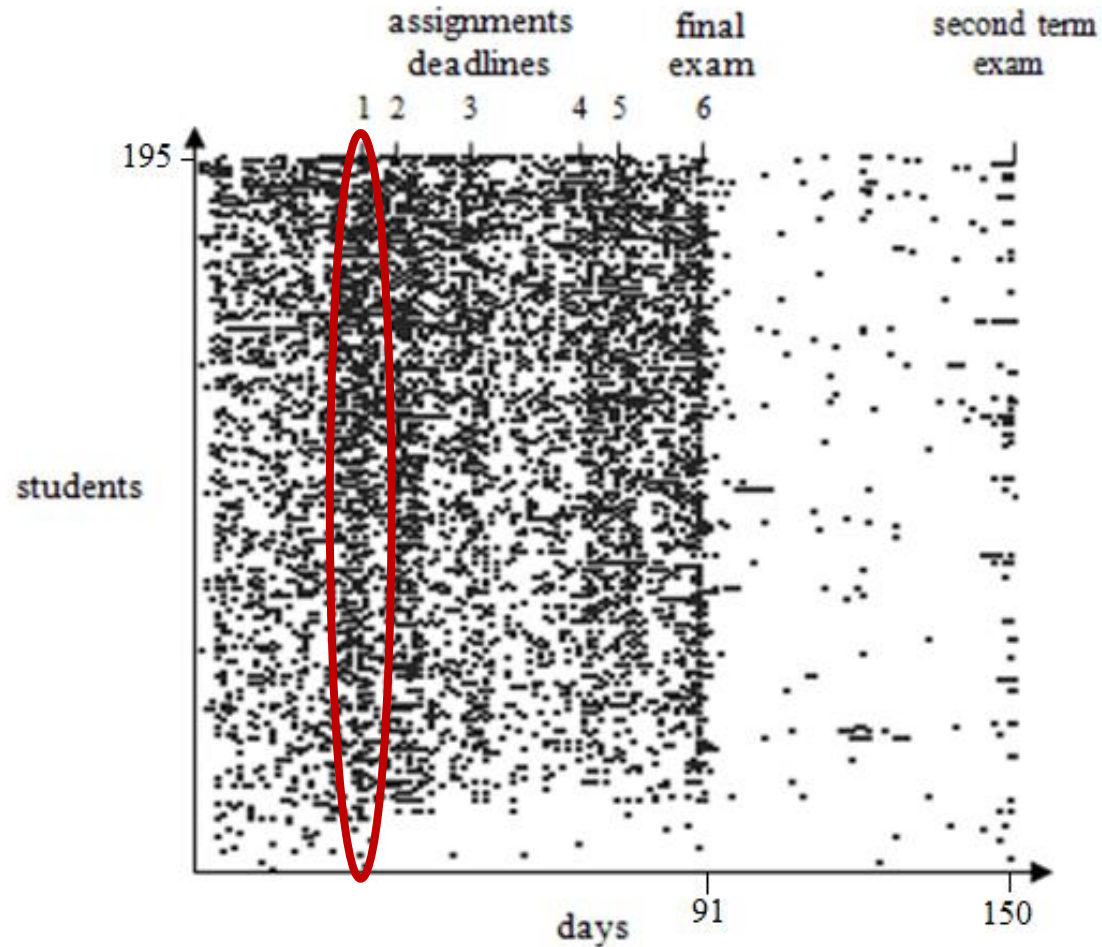
Discussion



Findings

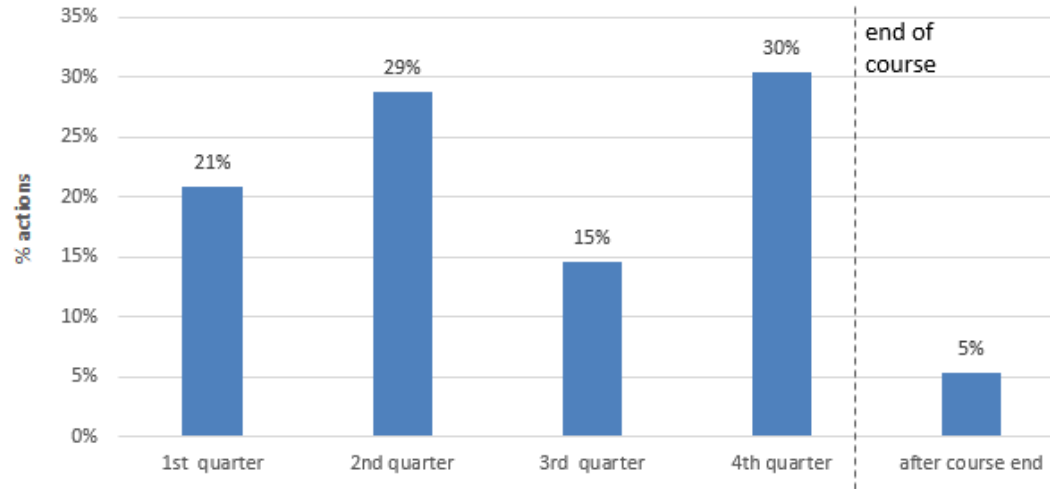
1. Students' utilization of flexibility of time and place

- Students' entries to the course website over the semester (N=195):

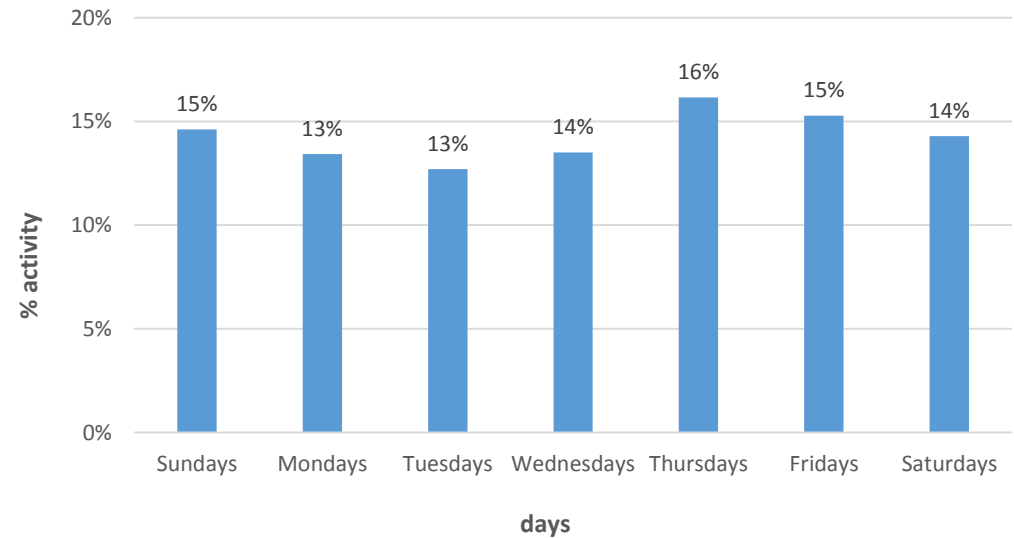


1. Students' utilization of flexibility of time and place

- Average student activity over the **semester quarters**:

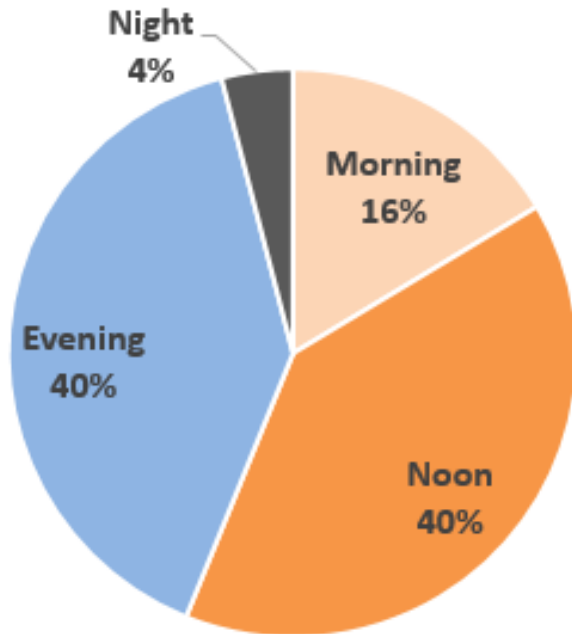


- Average student activity over the **days of the week**:

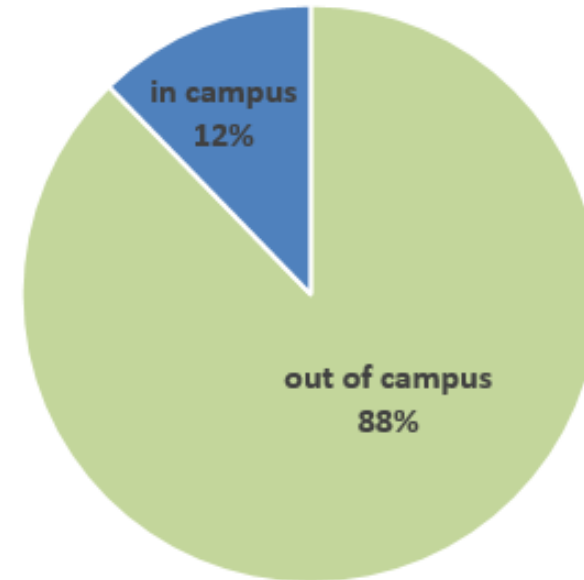


1. Students' utilization of flexibility of time and place

- Average student activity over the **hours of the day**:

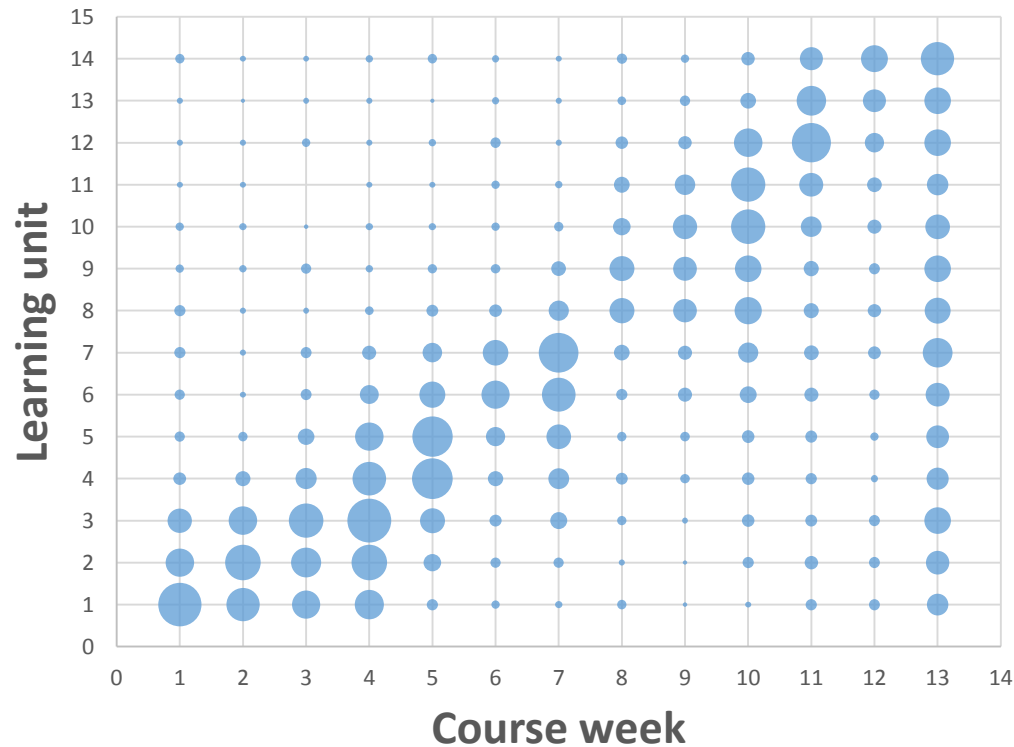


- Average student activity **in and out of campus**:



1. Students' utilization of flexibility of time and place

- Total number of students in each learning unit, each week (N=195):



Background

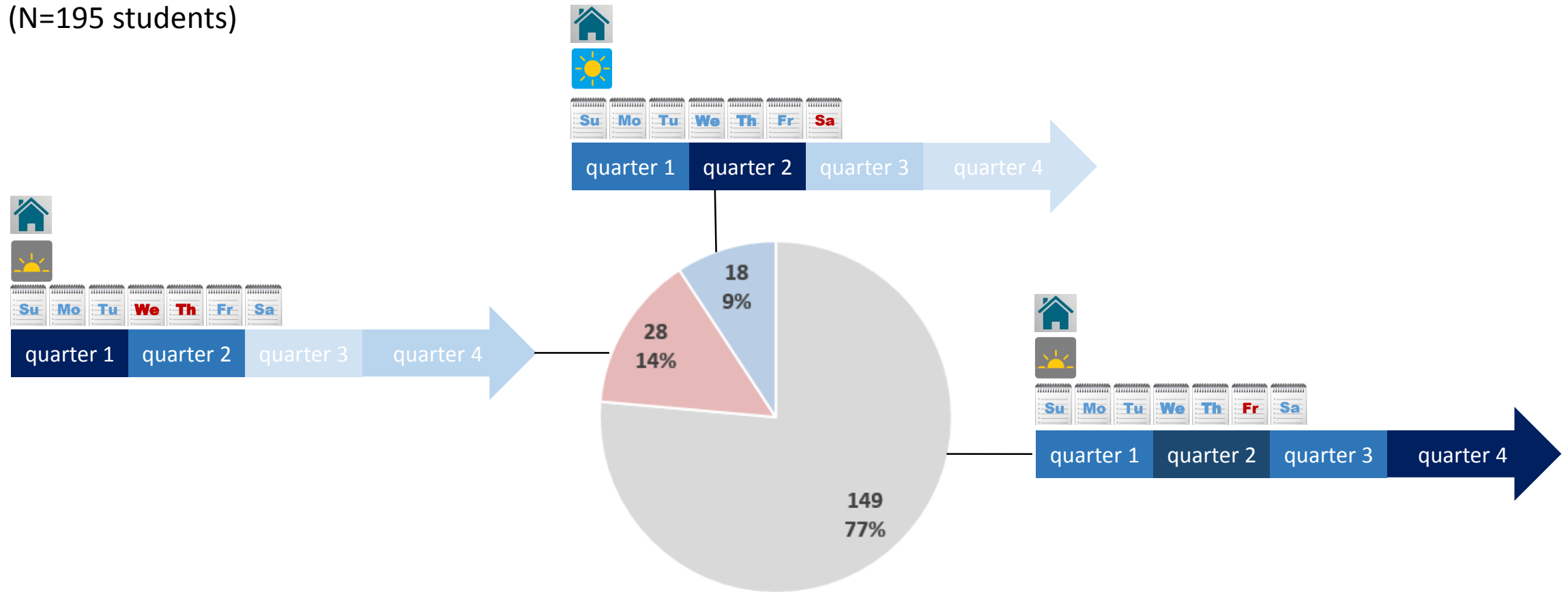
The Study

Findings

Discussion

2. Types of students by learning time and place

(N=195 students)



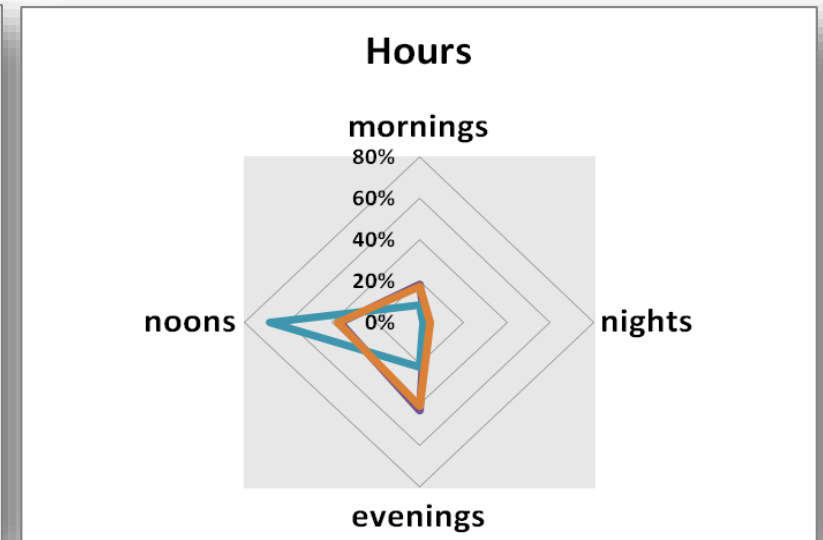
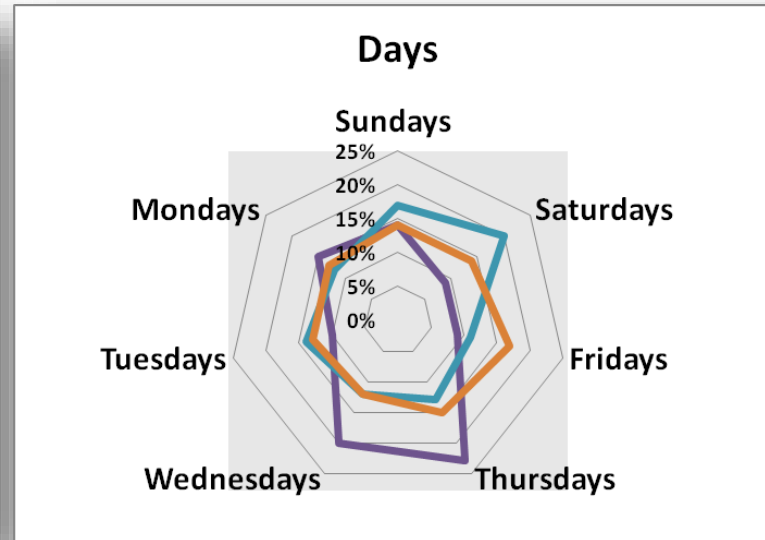
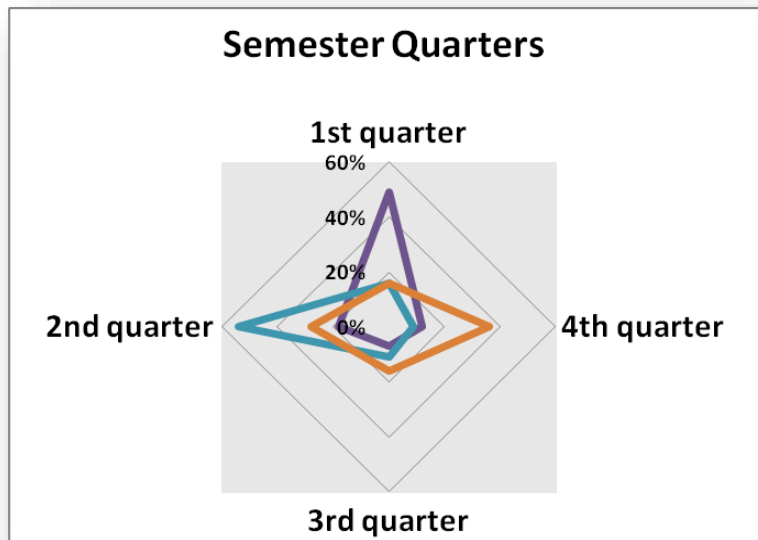
Background

The Study

Findings

Discussion

2. Types of students by learning time and place



Cluster 1 Cluster 2 Cluster 3

Background

The Study

Findings

Discussion

Discussion

Discussion

1. Students utilized the flexibility of time and place in diverse ways.

- **Flexibility of Time:**

- The vast majority of the students spanned their activity over the semester.
- The students spanned their activity over the days of the week - which may imply that they divided their workload, with preferences of specific days of more intense activity.
- The students were active at different hours of the day, mostly at noon and evening hours.

- **Flexibility of Place:**

- Most of the students' activity took place out of campus.

2. Three types of students were found, which were distinguished mostly by their learning time.



Limitations

- This is a preliminary study to a larger-scale study which examines how students utilize diverse flexibility aspects (e.g. time, place, learning resources usage, learning strategy) in fully online academic courses of varied disciplines and structures.



Thank You! 😊