

PURPOSE

- College students frequently engage in note-taking activities to be able to reproduce knowledge they have gained during classes.
 - Various note-taking options exist, alongside reasons for choosing them
 - Handwriting notes via pen/paper
 - Handwriting notes via stylus/tablet
 - Typing via computer/keyboard
- Previous research has discussed more fatigue with handwriting, but did not consider advent of stylus/tablets.

RESEARCH QUESTIONS

RQ1: Among college-aged students in Exercise and Sport Science department, how do perceptions of hand fatigue vary across different note-taking methods?

RQ2: Among college students in the Exercise and Sport Science department, what are the factors that influence choice of note-taking methods?

METHODS

Study Design: Multi-Method; survey and semi-structured interviews

Participants: EXSS Majors at UNC-Chapel Hill

Sampling Strategy: EXSS Class Recruitments, Flyers

Data Collection: Online Qualtrics survey

- Pilot of adapted hand fatigue questionnaire based on FSS and CIS questionnaires:
 - Participant characteristics
 - Note-taking method utilization and preferred methods
 - Participant description of important note-taking rationale
 - e.g., speed, organization, legibility, recall of information
- Optional semi-structured interviews on Zoom
 - Exploration of preferred and least preferred note-taking methods
 - Course and instructor specific qualities that may affect decision making of note-taking strategies

Data Analysis:

- Descriptive statistics and frequencies for quantitative variables
- Repeated Measures ANOVA test, and Fisher's Exact Test
- Template analysis for qualitative analyses
 - Identify themes related to reasons note-taking rationale and social factors influencing note-taking preferences.

TAKE-HOME MESSAGES

Students most preferred handwriting via stylus/tablet and least preferred handwriting via pen/paper.

Perceived hand fatigue was highest in handwriting via pen/paper and lowest in typing. These two methods were statistically different. (RQ1)

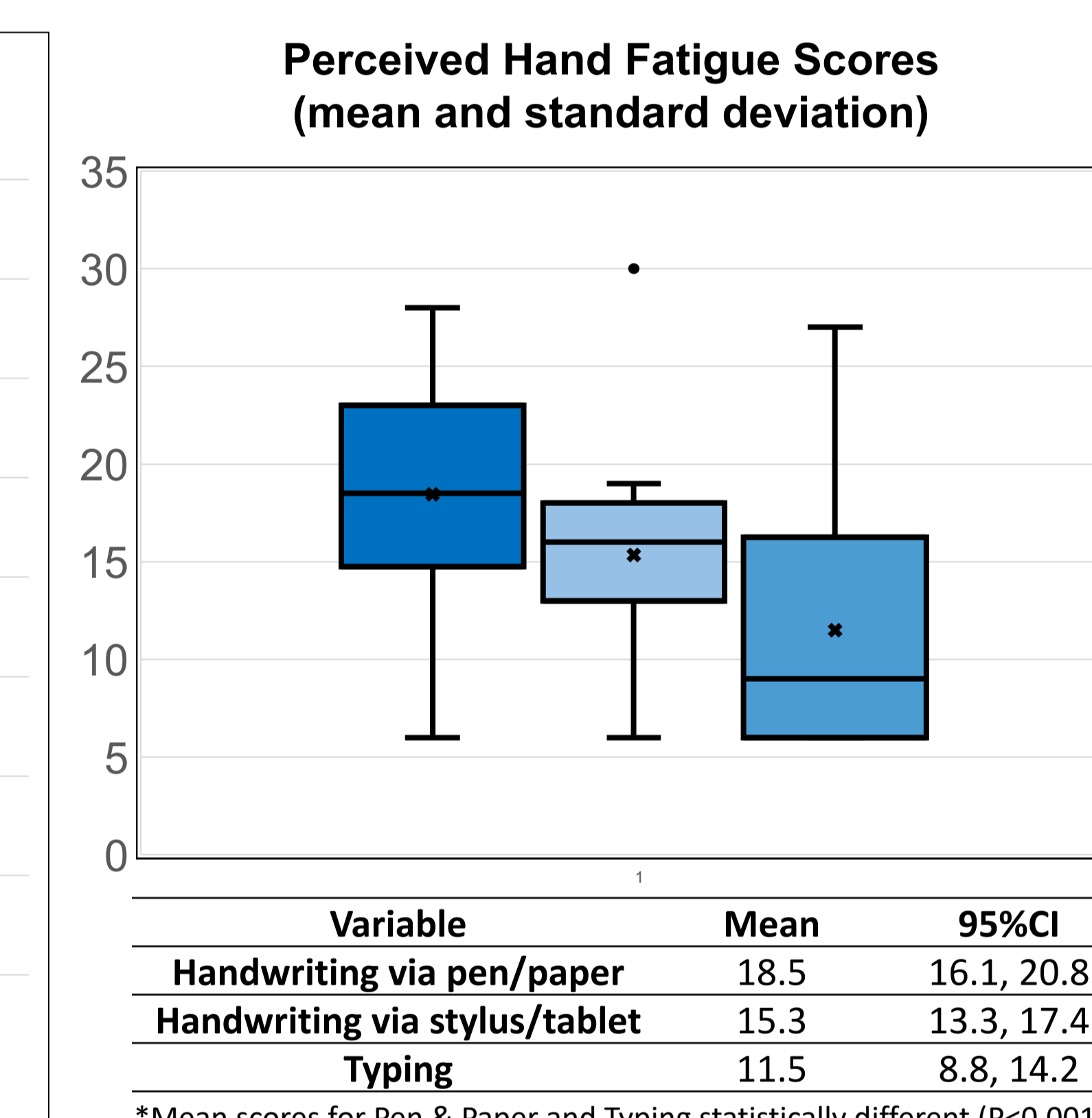
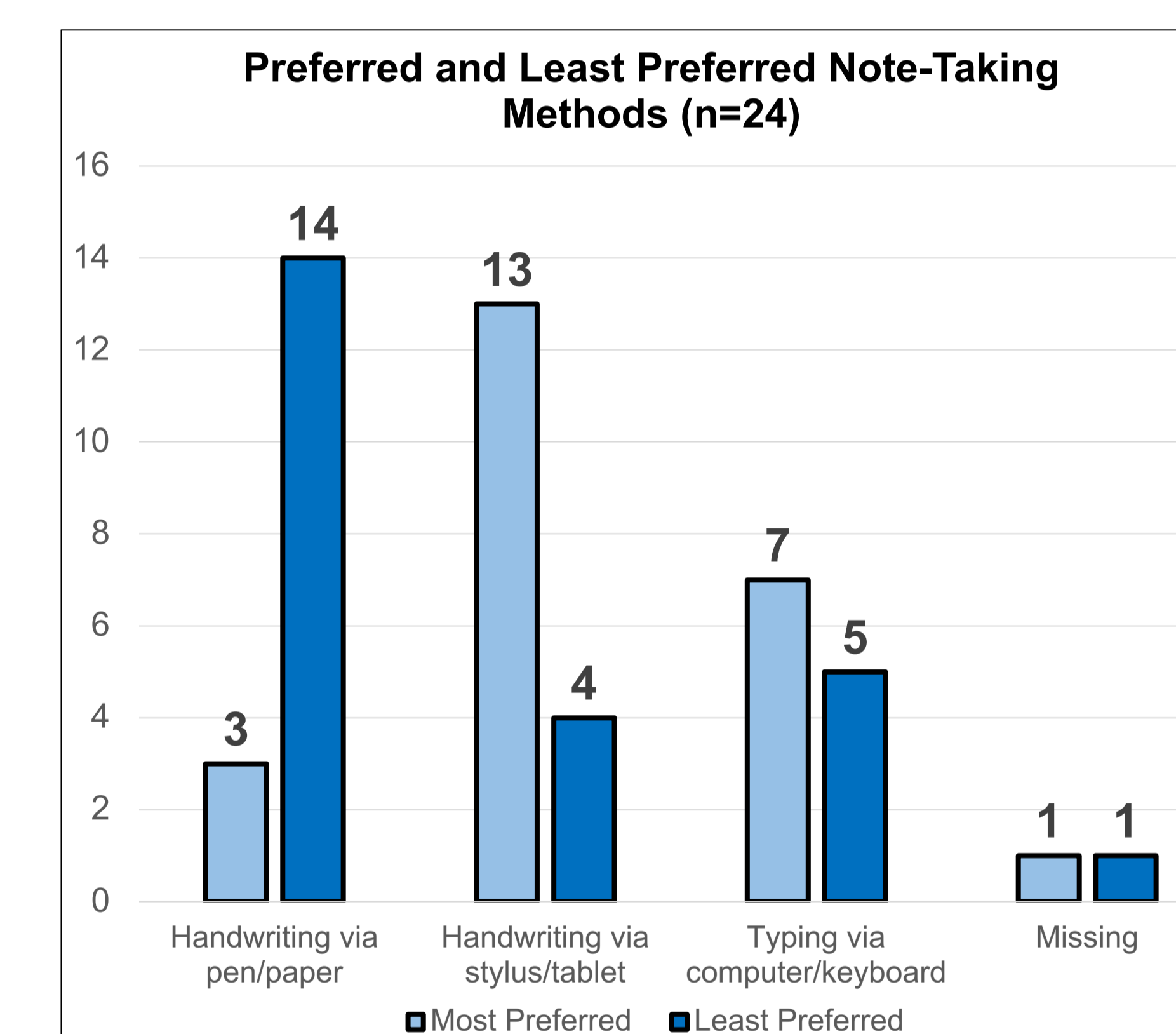
Class lecture pace influenced choice of note-taking method. In classes that were faster paced and had more content to copy from the slides, students were more likely to switch their note-taking method to typing. (RQ2)

Professor rules impacted how students were allowed to take notes. Some professors do not allow technology in class, therefore forcing students to take notes on pen/paper. (RQ2)

RESULTS

Table 1. Survey participant characteristics (n=24)

Year in School	Gender Identity	Race/Ethnicity	EXSS Track
Senior = 41.7% Junior = 20.8% Sophomore = 25% First Year = 12.5%	Man = 25% Woman = 75%	White/Non-Hispanic = 95.8% Nonwhite = 4.2%	General = 87.5% Sport Admin = 12.5% Fitness Prof = 0%



Interview Themes- Pro's and Con's Associated with Each Note-taking Method

	Pen/Paper	Stylus/Tablet	Typing
PROS	<p>Physically writing with pen and paper (n=3)</p> <ul style="list-style-type: none"> "I like the tactile aspect of writing with pen and paper" <p>Increased Memory Retention (n=11)</p> <ul style="list-style-type: none"> "I like handwriting because I feel like I remember things well" 	<p>Types of materials needed (n=7)</p> <ul style="list-style-type: none"> "Predownload lecture slides and add extra notes on the slide" <p>Organization (n=10)</p> <ul style="list-style-type: none"> "organize with nice writing" 	<p>Accessibility (n=7)</p> <ul style="list-style-type: none"> "accessible because I bring my computer almost anywhere" <p>Speed of note-taking (n=11)</p> <ul style="list-style-type: none"> "Allows me to get all the information down and not get behind" <p>Organization (n=4)</p> <ul style="list-style-type: none"> "I can organize notes better on my computer"
CONS	<p>Speed of note-taking (n=8)</p> <ul style="list-style-type: none"> "Difficult to keep up with lectures in real time" <p>Materials (n=6)</p> <ul style="list-style-type: none"> "carrying notebooks is too much of a hassle" <p>Hand fatigue (n=4)</p> <ul style="list-style-type: none"> "I don't like that my hand can cramp" 	<p>Technology Issues (n=4)</p> <ul style="list-style-type: none"> "If my stylus or tablet dies, then I have to find some other way to take notes" 	<p>Recall of Information (n=9)</p> <ul style="list-style-type: none"> "I don't remember things as well" <p>Technology Issues (n=3)</p> <ul style="list-style-type: none"> "when my computer dies, I don't have any other way to take notes"