



U.S. NAVAL WAR COLLEGE



The NWC iPad Pilot

Briefing for
ADL ImplementationFest
August 4, 2011

Disclaimer

The contents of this briefing should not be construed as a Naval War College endorsement (positive or negative) of any product or company.

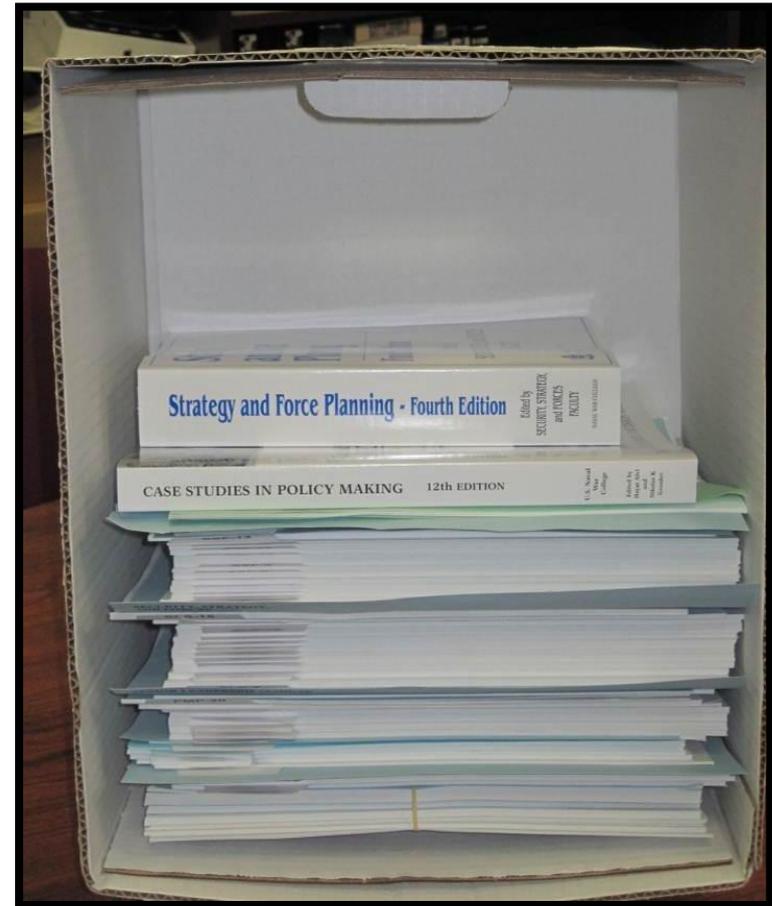
The information is presented solely in the interest of furthering the discussion of using digital devices in Higher Education.

The Naval War College

- **650 Resident students**
 - Military - Civilian - International
 - Two curricula - Senior & Intermediate
 - Graduate level / NEASC Accredited
 - 12-15 students/seminar
 - 10 month academic year / 3 trimesters
- **3200 non-resident students**
 - Military - Civilian
 - Intermediate curricula only
 - Four Programs
 - Fleet Seminar * *Masters possible
 - Web-enabled
 - CD ROM
 - Naval Postgraduate School (Monterey)

Why iPads?

8300 pages (printed readings) + 58 books/student



NWC iPad Pilot

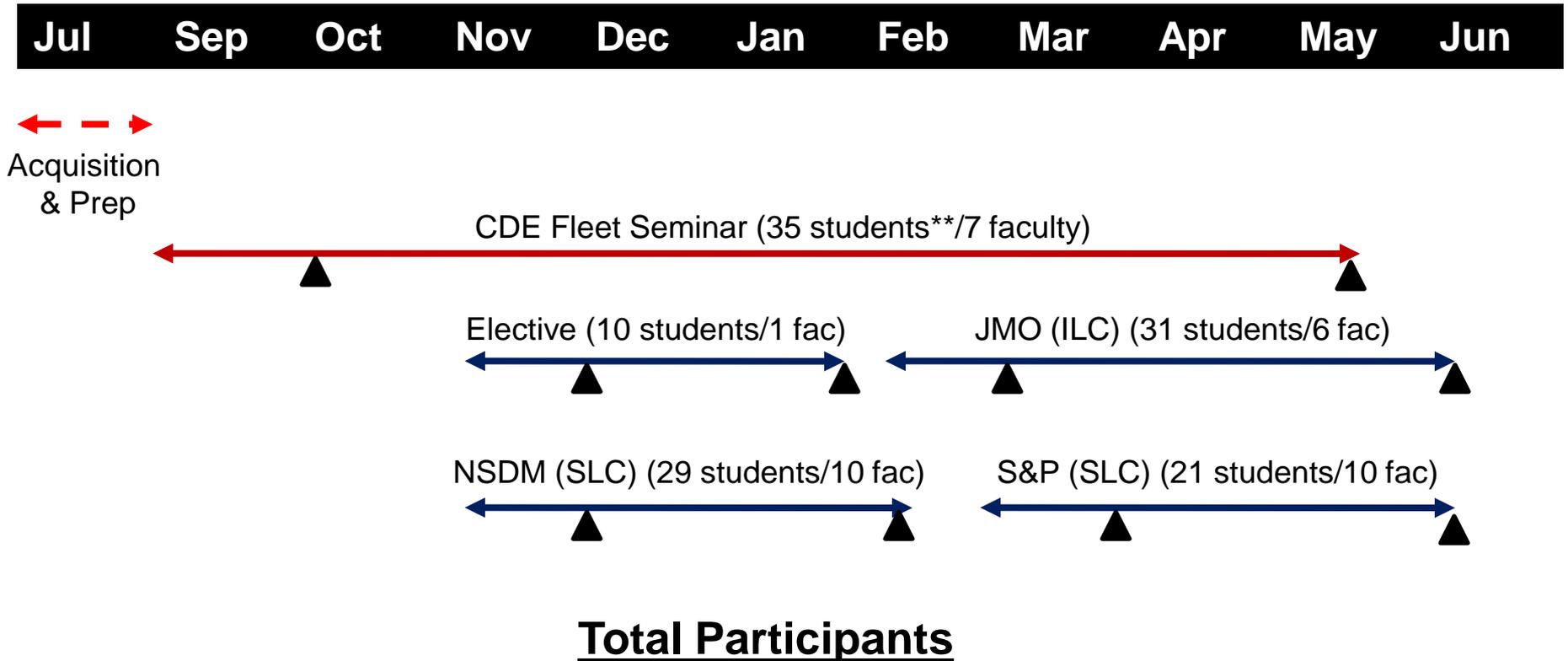
- Hardware
 - 120 Apple iPads
 - 16 GB/wifi only
 - Apple iPad covers
 - 12 Apple wireless keyboards
 - Dell laptop >> Mac desktop
- Software
 - iAnnotate / GoodReader
 - Pages
- Content
 - 400+ PDFs
 - 2 books (free in iBooks)

Device Management

- iPads
 - All devices registered to a single NWC “Apple ID”
 - Two apps purchased and installed by NWC
 - iAnnotate/GoodReader + Pages
 - Laser engraved on back with NWC serial # contact info
 - No restrictions applied
 - Students signed NWC User Agreement
- Content
 - Formatted and preloaded by NWC

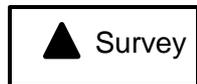
Timeline

Academic Year 2010/11



Total Participants

126 students
34 faculty



**Includes 7 students that completed the initial (5 week) survey, but subsequently dropped the course prior to completing the final survey.

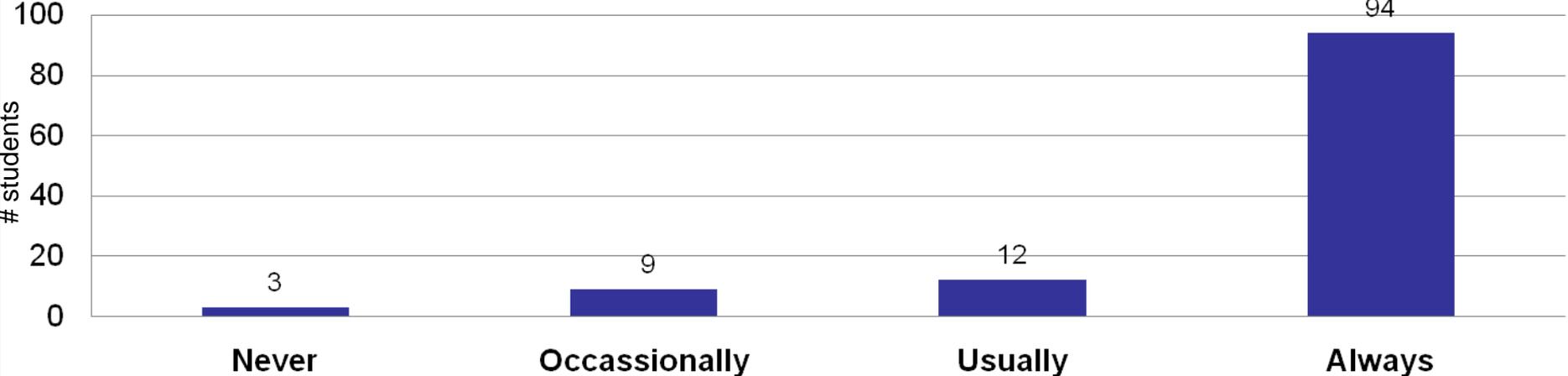
Variables Observed

- Rank/age
- Service affiliation (Mil and Civ)
- Course (JMO, NSDM, S&P/W, Elective)
- Frequency of classes (weekly vs. daily)
- Length of use (11 weeks – 37 weeks)
- % of total readings available on iPad (35% - 100%)
- Availability of printed readings (0% - 100%)
- Group dynamics (1-2 seminar vs. entire seminars w/iPads)

Student Habits

118 students

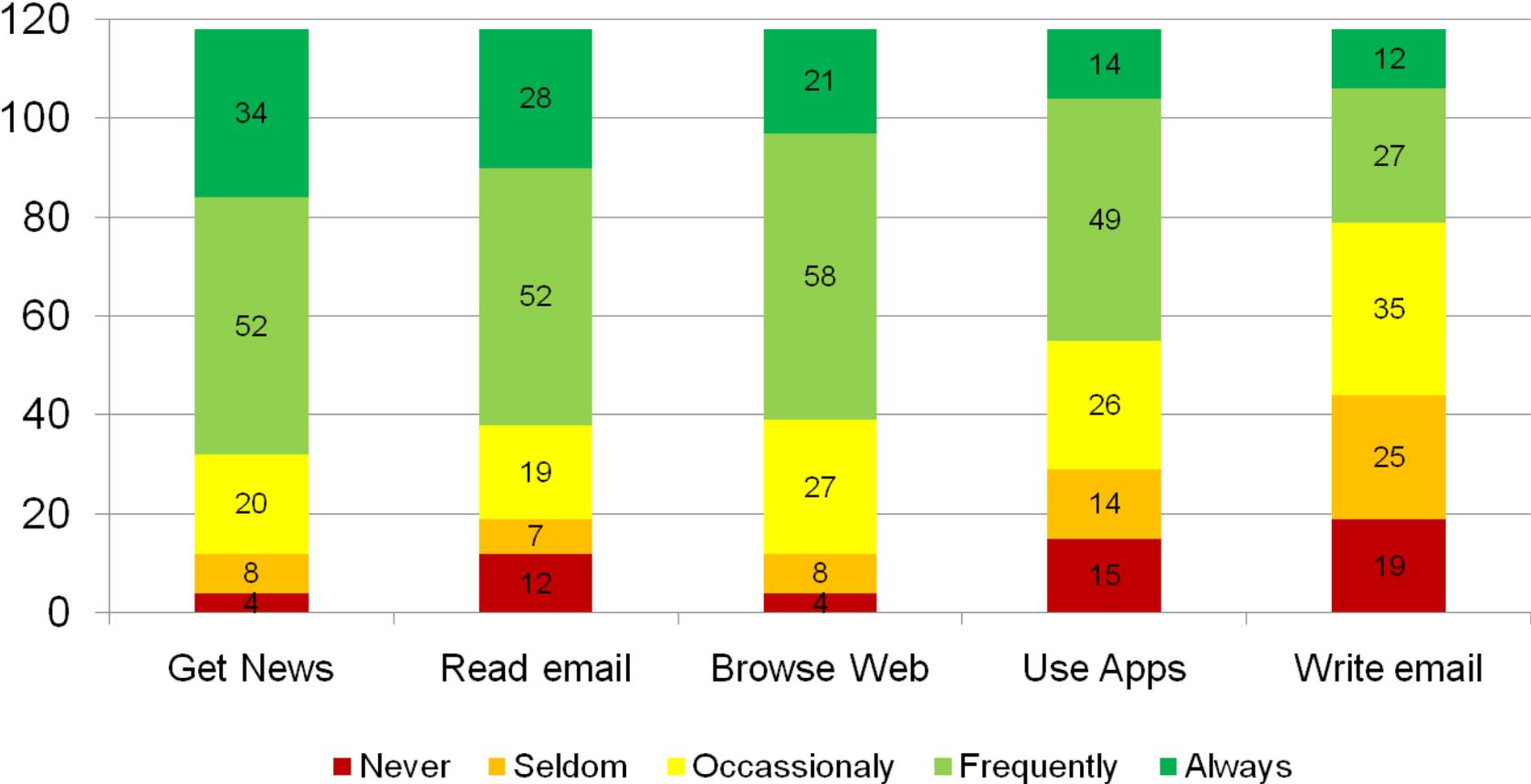
“How often did you bring your iPad to class?”



Student Habits

118 students

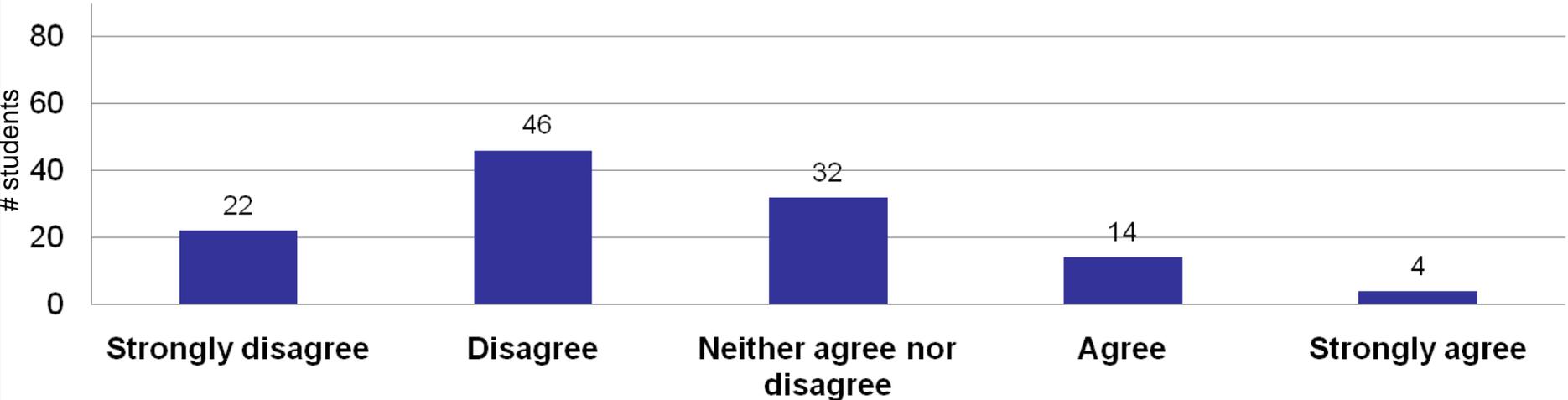
“How often did you use our iPad for the following functions?”



Student Perceptions

118 students

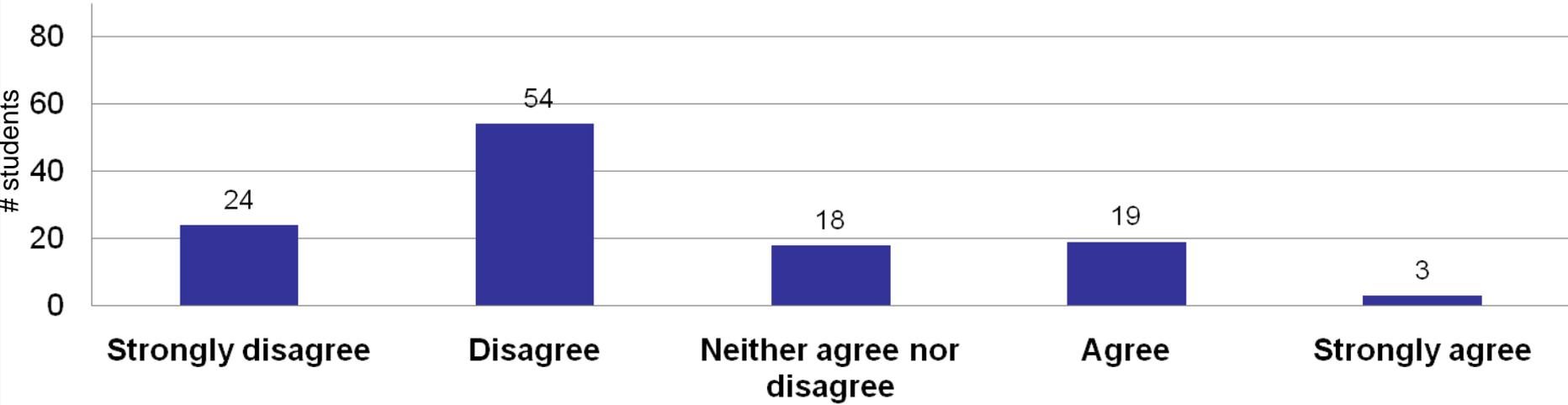
“I find myself reading more slowly than I normally do.”



Student Perceptions

118 students

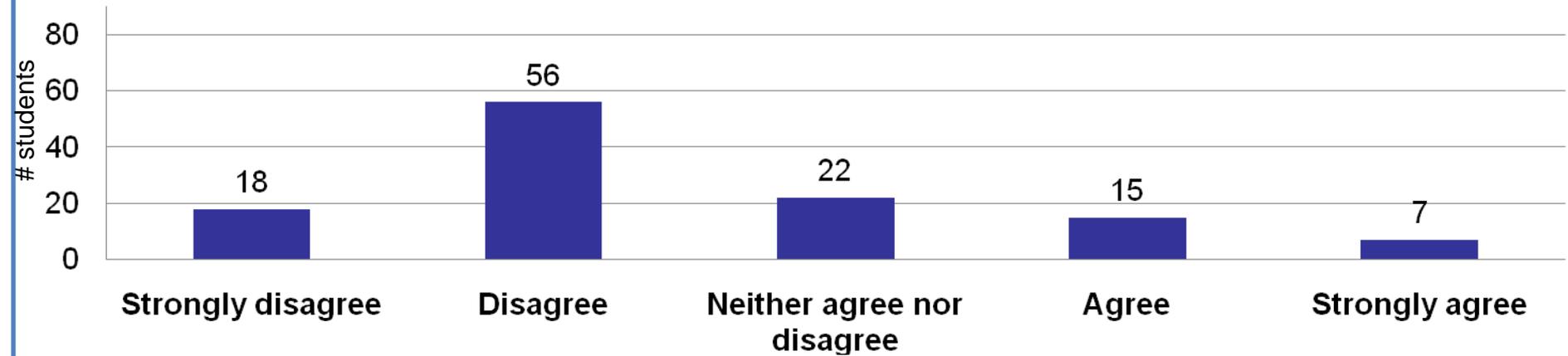
“I find that turning pages is more difficult/tiresome with the iPad.”



Student Perceptions

118 students

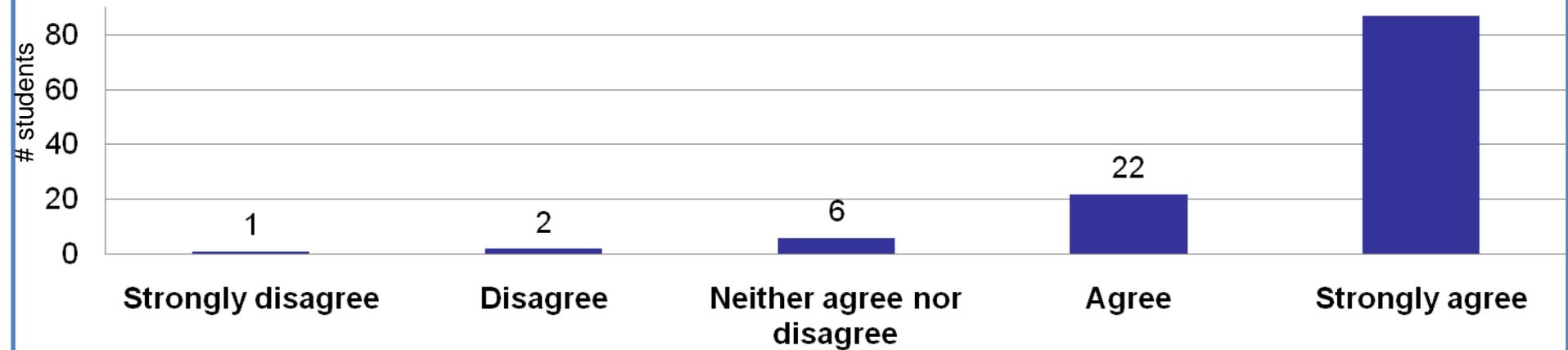
“I find myself distracted by all the other things I could do with the iPad.”



Student Perceptions

118 students

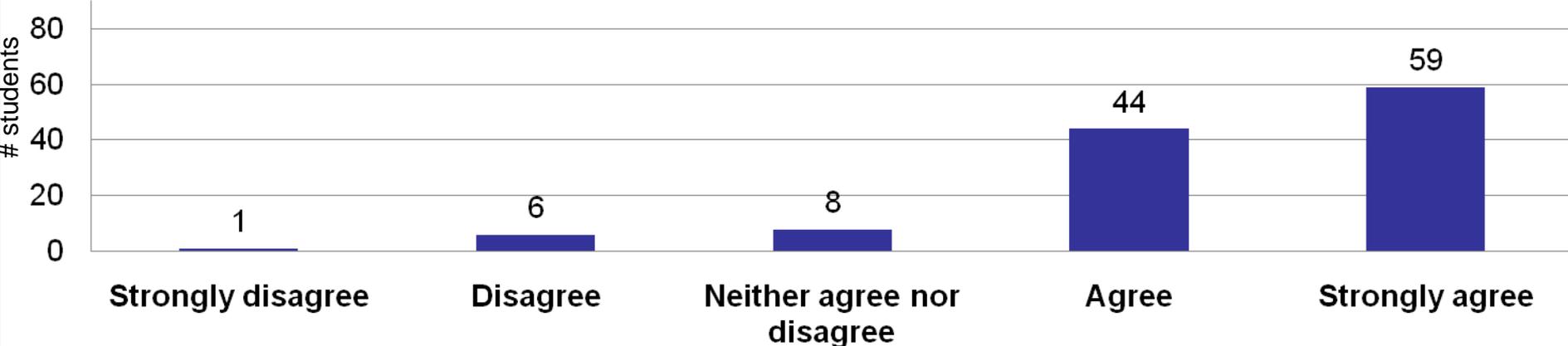
“I enjoy having all of my reading material in one place rather than transporting multiple physical notebooks and texts.”



Student Perceptions

118 students

“I found the iPad to be a useful tool in the classroom.”



Student Preferences

118 students

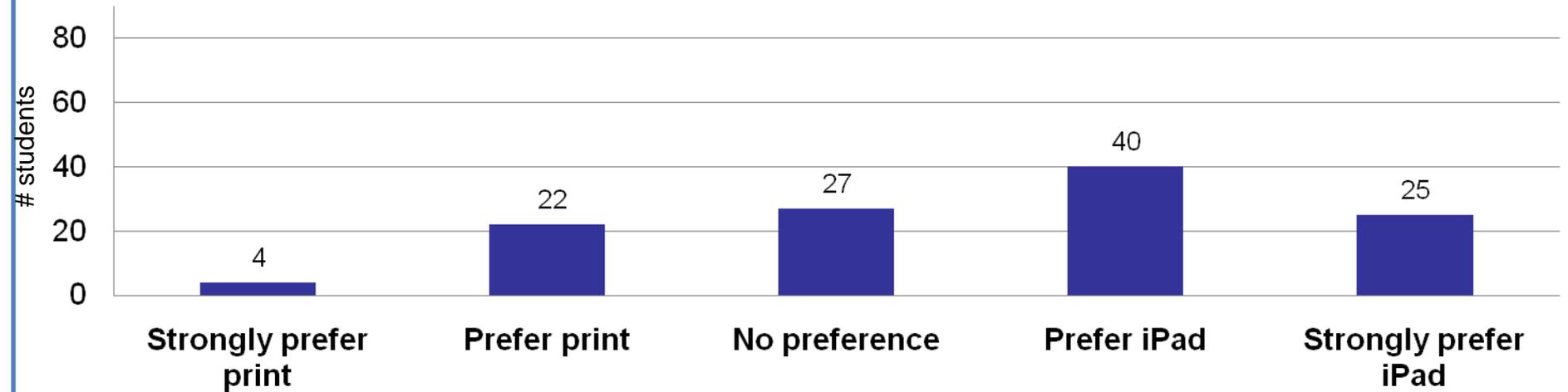
“Please compare using the iPad (with iAnnotate/ GoodReader) to traditional printed readings in the following categories:”

- Reading
- Marking up/Annotating
- Reviewing for class/writing a paper
- Comprehending the material

Student Preferences

118 students

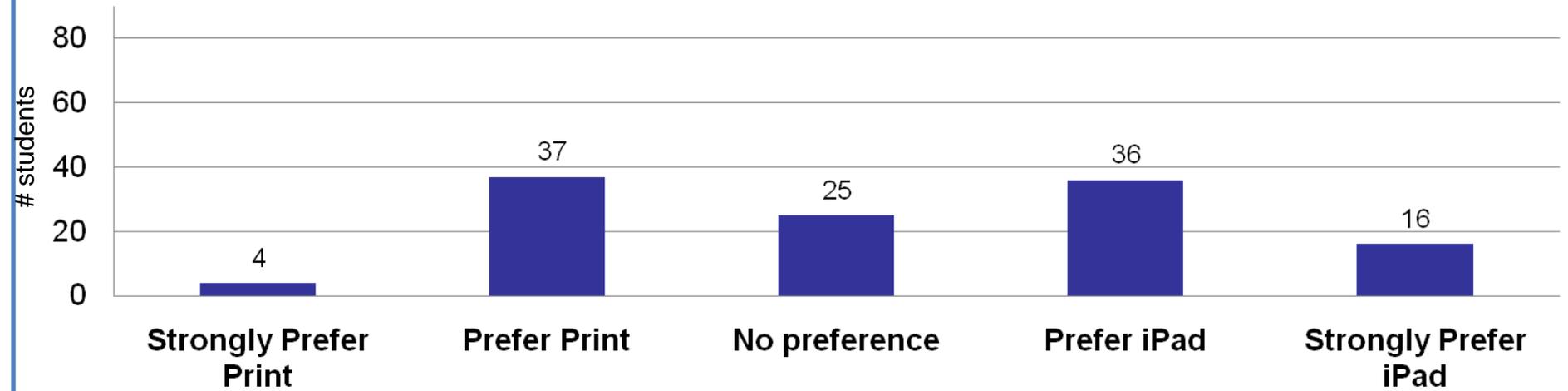
Reading



Student Preferences

118 students

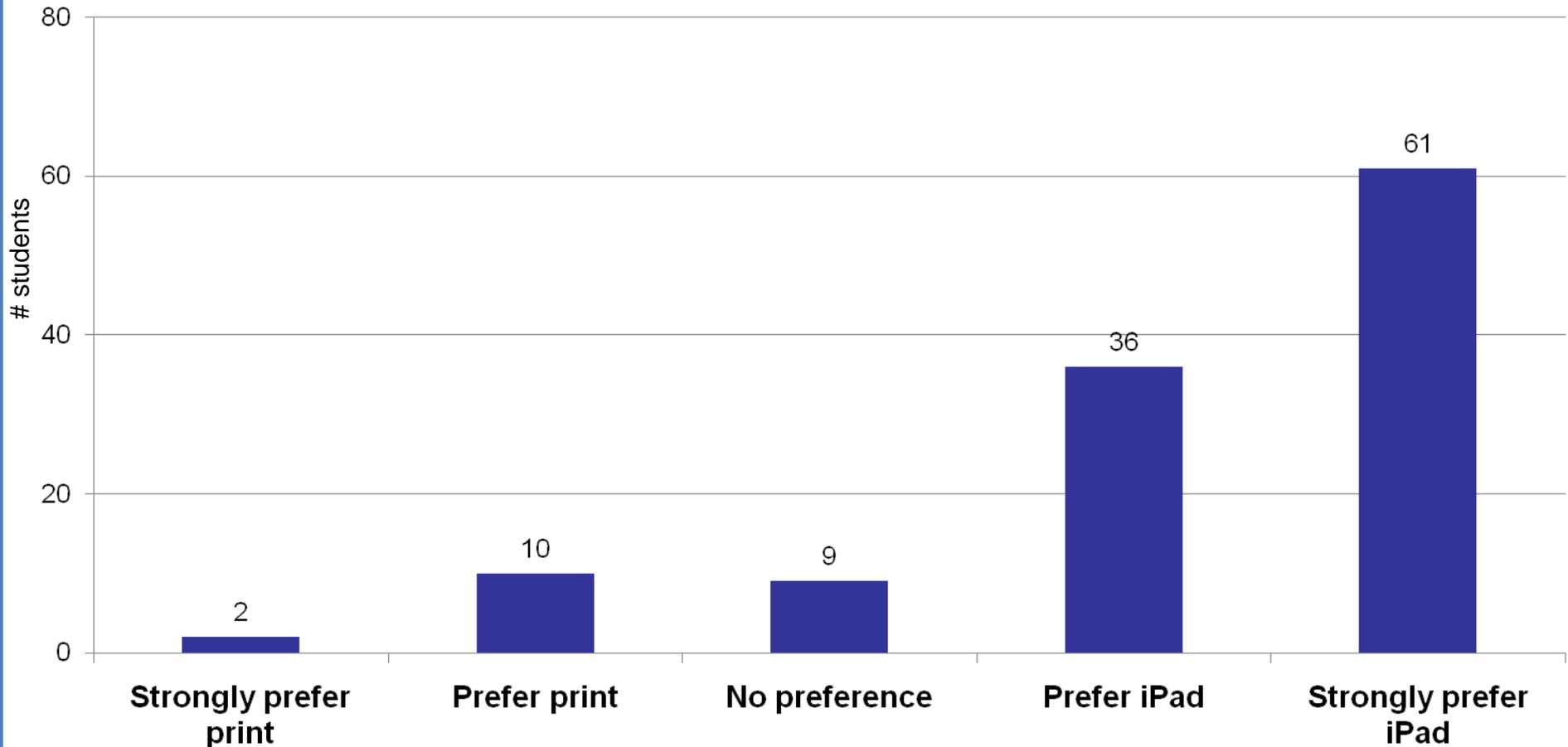
Reviewing for Class/Writing a paper



Student Preferences

118 students

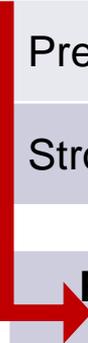
“Please indicate your preference for how you would like to receive your readings for future NWC courses.”



Student Preferences

118 students

“Please indicate your preference for how you would like to receive your readings for future NWC courses.”

Course >>> (# students) >>>	CDE (30)	NSDM (27)	Elective (9)	S&P (22)	JMO (30)	Overall (118)
Strongly prefer printed	1	0	0	1	0	2
Prefer Printed	1	3	2	2	2	10
No Preference	4	2	2	1	0	9
Prefer iPad	9	7	4	7	9	36
Strongly Prefer iPad	15	15	1	11	19	61
 Prefer + Strongly Prefer iPad	80%	81.5%	55.5%	81.8%	93.3%	82.2%

Student Preferences

118 students

“Please indicate your preference for how you would like to receive your readings for future NWC courses.”

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Prefer + Strongly Prefer iPad	80%	81.5%	55.5%	81.8%	93.3%	82.2%
 Initial Survey	82.3%	79.3%	63.6%	61.9%	87.1%	77.8%

Summary of Preliminary Findings

- 82% of the students in the pilot prefer to use the iPad for their readings.
- CNC&S students perceive greater value for the iPad than CNW students.
- Longer/greater use leads to higher valuation of the iPad.
- The iPad is a rugged device and requires little/no maintenance.
- The iPad has intuitive controls/functions and is easy to use.
- Students used the iPad for much more than reading.
- Students have a strong desire to be able to read NWC email on the iPad.
- Most students will still use a laptop/desktop to write their NWC papers.
- Students are already using personal eReaders/tablets.
- Students will still want to print some materials from the iPad.

Results of Faculty Survey

- 20/34 faculty completed the survey.
- 65% brought the iPad to most/every class.
- Change in seminar dynamics?
 - 70% noticed some changes
- Quality of seminar?
 - 55% - added value
 - 10% - detracted
 - 35% - no change
- Student preparation for seminar?
 - 65% - no difference
 - 30% - more prepared
- Student outcomes?
 - 80% - no change
- Change teaching methods?
 - 70% - no change
 - 5/6 that did change - minor changes
- In favor of deployment to students?
 - 60% - in favor/strongly in favor
 - 20% - neutral
 - 20% - opposed
 - 0% - strongly opposed

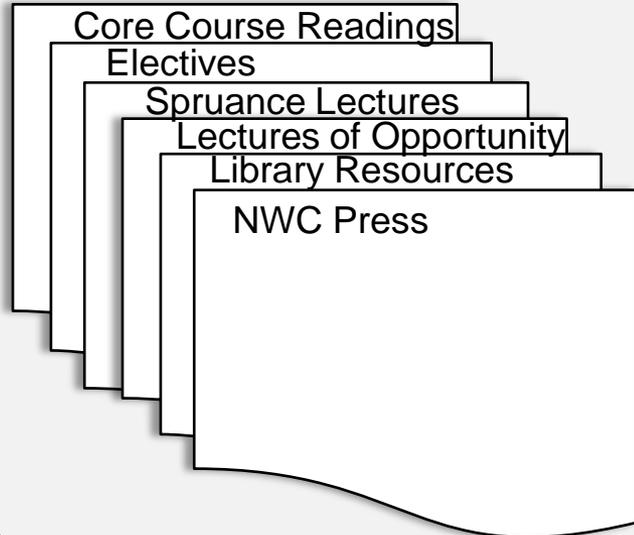
Follow-on Decisions

- Partial iPad deployment for AY 2011/12
 - 375 iPad 2s + covers being purchased
 - Apple Volume Purchase Plan – Apps
 - Faculty get used iPad 1s
- IT Department to manage the devices
- Desktop Publishing prepping/formatting content
- All Academic Departments to digitize content
- Students encouraged to use their own devices

Repository

Options include:
iTunes University
LMS (Bb/Sakai/etc.)
NWC Portal

Examples of Possible Digital Content



Wide Range of Digital Devices



Future Directions

- NWC iTunesU
- Blackboard growth / integration
- Non-resident content formatted for iPad/Kindle
 - Platform neutral
- Full deployment?
- NWC lease/Student purchase iPads?
- App development

Questions ?

Professor John Roberts
US Naval War College
686 Cushing Road
Newport, Rhode Island 02841
401 841-3277
robertsj@usnwc.edu