

THE CHINESE UNIVERSITY OF HONG KONG

Micro-Module Courseware Development Grant

Final Report (August 2015)

Report due 31 August 2015.

Please return by email to The Ad hoc Committee on Planning of eLearning Infrastructure
mmcd@cuhk.edu.hk

PART I

Project title: Teaching and Learning Enhancement by Micro-Module in Cardiology
Pharmacology and Therapeutics

Principal supervisor: Lee Wing Yan, Vivian

Co-supervisor(s)

Department / Unit: School of Pharmacy

Project duration: From January 2015 to August 2015

Date report submitted: 31 August 2015

1. Project objectives

Is the project on track to meet its objectives? Yes, the project is on track to meet its objectives.

Have the objectives been changed as a result of the experience of working on your MMCDG project? No. The objectives have not been changed.

2. Process, outcomes or deliverables

Please specify the number of micro modules produced, and the course(s) (with course codes and titles) that have used the micro modules in Part IV, and provide more detailed descriptions in here.

Have the nature of the deliverables been changed? No, the natures of the deliverables have not been changed.

Have you adjusted your timeline? We have not adjusted our timeline.

Overall, was the project completed satisfactorily? The project was completed with satisfaction.

3. Evaluation Plan

Have you altered your evaluation plans? No, we have not altered our evaluation plans.

What monitoring data did you collect? The course PHAR 3413 will be commenced in the Fall semester 2015 and will collect monitoring data at the end of the semester.

Does your evaluation indicate that you have achieved your objectives? We will submit our findings to the committee after we have gathered all the evaluation forms from students.

4. Dissemination, diffusion and impact

Please provide examples of dissemination: website, presentations in workshops or conferences, or publications.

The course materials are uploaded to the following websites:

- (i) https://elearn.cuhk.edu.hk/webapps/blackboard/execute/modulepage/view?course_id=53822_1&cmp_tab_id=90736_1&editMode=true&mode=cpview
- (ii) https://elearn.cuhk.edu.hk/webapps/blackboard/content/listContentEditable.jsp?content_id=1364198_1&course_id=56349_1

Presentations at conferences:

- “Inter-Professional Teaching and Learning in Medication Safety” at the Medical Education Conference organized by the Hong Kong Jockey Club Innovative Learning Centre for Medicine (7 February 2015, Hong Kong)
- “Trends in Pharmacy Education for Advanced Pharmacy Practice” at the Philippine Pharmacy Summit 2015 organized by the University of Philippines Pharmaceutical Association and the Federation of Asian Pharmaceutical Association (14 February 2015, Manila, Philippines)
- “Multidisciplinary and Innovative Teaching and Learning Platforms in Pharmacy Education” at the 2015 Forbidden City International (8 May 2015, Beijing, China)
- “My Lesson in Designing for Learning through Micro-Modules” at the CUHK ELITE Seminar (17 March 2016)

Publications:

- One abstract and one manuscript will be prepared after completing the analysis for the students’ evaluations.

Please provide examples of diffusion: how the project results/process/outcomes/deliverables being used in your unit and other parts of CUHK or other institutions?

The Office of Medical Education of the faculty of medicine has also endorsed to use pre- and post-lecture materials (Micro-module based materials) to enhance teaching and learning.

Please provide examples of impact: how the project results (micro modules) can be adapted to other disciplines.

I have started the multi-disciplinary teaching platform (MELODY) including biomedical sciences, pharmacy, nursing, medicine, Chinese medicine, and social works. My micro module experience from this development grant is shared with the teachers from various departments for them to develop similar micro-module teaching materials for MELODY.

PART II

Financial data

Funds available:

Funds awarded from MMCDG	\$ 94,000
Funds secured from other sources (please specify _____)	\$ 0
Total:	\$ 94,000

Expenditure:

Item	Budget as per application	Expenditure	Balance
Software	7194	6,764.64	429.36
Hardware	43,920	45,277	-1,357
Production	42,886	41,950	936
Total:	94,000	93,991.64	8.36

PART III

Lessons learnt from the project

Please describe your way forward.

Please describe any of the following item(s) accordingly:

- *Key success factors:*
 - This project enriched my experience in the preparation of micro-modules.
 - I found that micro-modules are relatively easy and can greatly facilitate my teaching.
- *Difficulties encountered and remedial actions taken* – Some students expressed that there were technical difficulties in accessing the micro-modules online. They suspected that it was because all of our teaching materials were prepared via the Mac computer instead of PC computers. Therefore, the extension of project was requested and granted to test the teaching materials with PC computers.
- *The role of other units in providing support* – Not applicable
- *Suggestions to CUHK, if any*
 - Host workshops for staffs to exchange experiences for Micro-modules

development and evaluations.

PART IV

Information for public access

Summary information and brief write-ups of individual projects will be uploaded to a publicly accessible CUHK MMCDG website. Please extract from Part I the relevant information to facilitate the compilation of the publicly accessible website and reports.

1. Keywords

Please provide five keywords (in the order of most relevant to your project to least relevant) to describe your micro-modules/pedagogies adopted.

- (Most relevant) Keyword 1: Micro-module
 Keyword 2: Cardiology Pharmacology and Therapeutics
 Keyword 3: Teaching and Learning Enhancement
 Keyword 4: e-learning
- (Least relevant) Keyword 5: *knowledge transfer*

2. Summary

Please provide information, if any, in the following tables, and provide the details in Part I.

Table 1: Publicly accessible online resources (if any)

(a) Project website:

If a publicly accessible project website has been constructed, please provide the URL.

- http://www.cuhk.edu.hk/eLearning/c_tnl/mmcd/index.html.

(b) Webpage(s):

If information of your project is summarized in a webpage (say a page in the department's or faculty's website), please provide the URL(s) in here.

(c) Others (please specify):

Table 2: Resource accessible to a target group of students (if any)

If resources (eg. software) have been developed for a target group of students (eg. in a course, in a department) to gain access through specific platforms (eg. Blackboard, facebook), please specify.

<u>Course Code/ Target Students</u>	<u>Term & Year of offering</u>	<u>Approximate No. of students</u>	<u>Platform</u>
PHAR 3413	1 st term 2015	60	Blackboard

Table 3: Presentation (if any)	
<i>Please classify each of the (oral/poster) presentations into one and only one of the following categories</i>	Number
(a) In workshop/retreat within your unit (eg. department, faculty)	0
(b) In workshop/retreat organized for CUHK teachers (eg. CLEAR workshop, workshop organized by other CUHK units)	1
(c) In CUHK ExPo jointly organized by CLEAR and ITSC	0
(d) In any other event held in HK (eg. UGC symposium, talks delivered to units of other institutions)	1 (oral presentation)
(e) In international conference	2 (oral presentation)
(f) Others (please specify)	0

Table 4: Publication (if any)	
<i>Please classify each piece of publications into one and only one of the following categories</i>	Number
(a) Project CD/DVD	0
(b) Project leaflet	0
(c) Project booklet	0
(d) A section/chapter in a booklet/ book distributed to a limited group of audience	0
(e) Conference proceeding	2
(f) A chapter in a book accessible internationally	0
(g) A paper in an referred journal	<i>Pending submission</i>
(h) Others (please specify)	0

3. A one-page brief write up

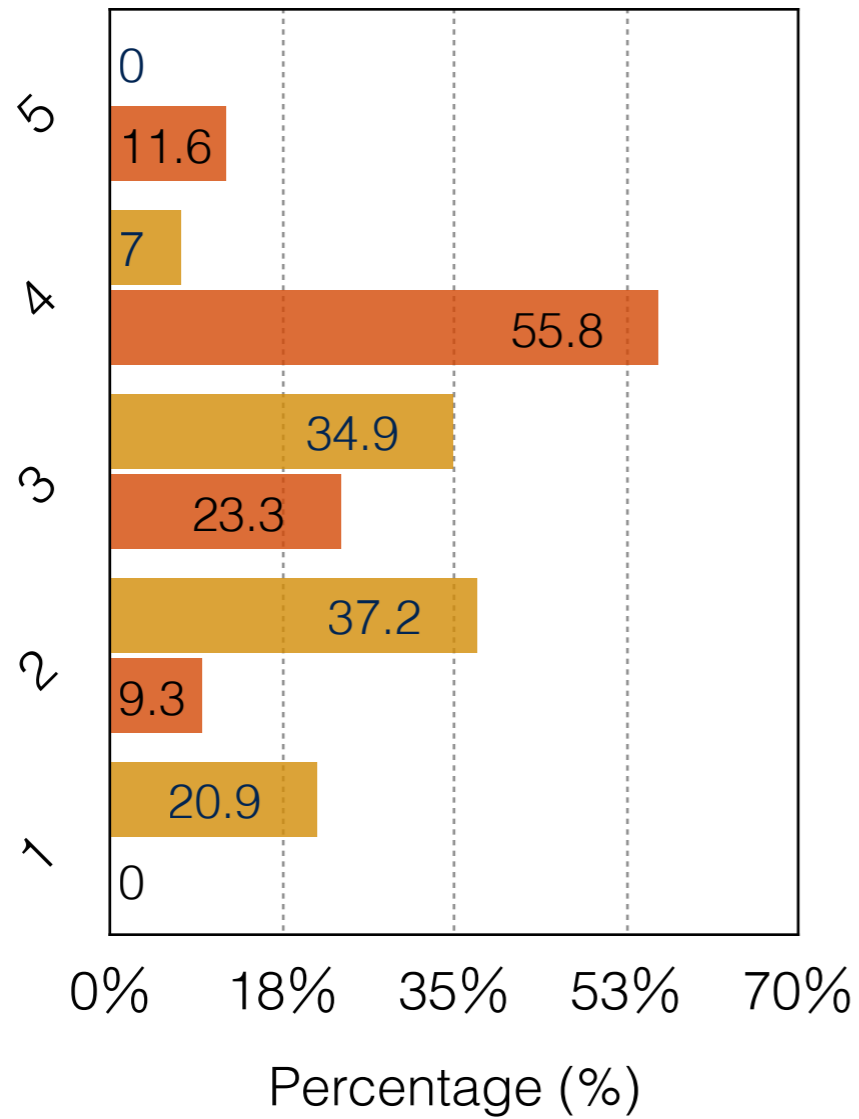
Please provide a one-page brief write-up of no more than 500 words or a short video (~2 minutes) (preferred).

Kindly see the attached file for the short video.

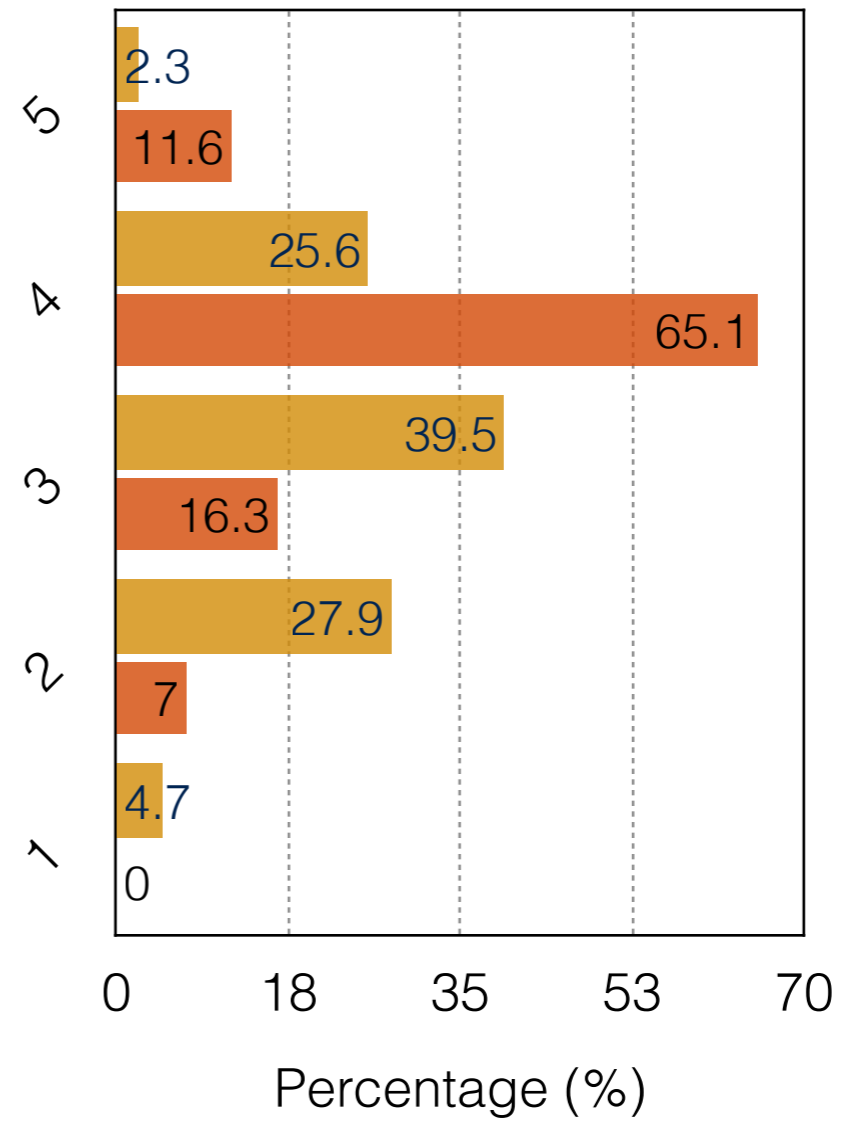
**Student Evaluation of e-learning with Mirco-modules in Cardiology
Pharmacology and Therapeutics (Fall 2015)
(n=43)**

■ Before ■ After

**Q1&2: Understanding of
Cardiology Therapeutics**

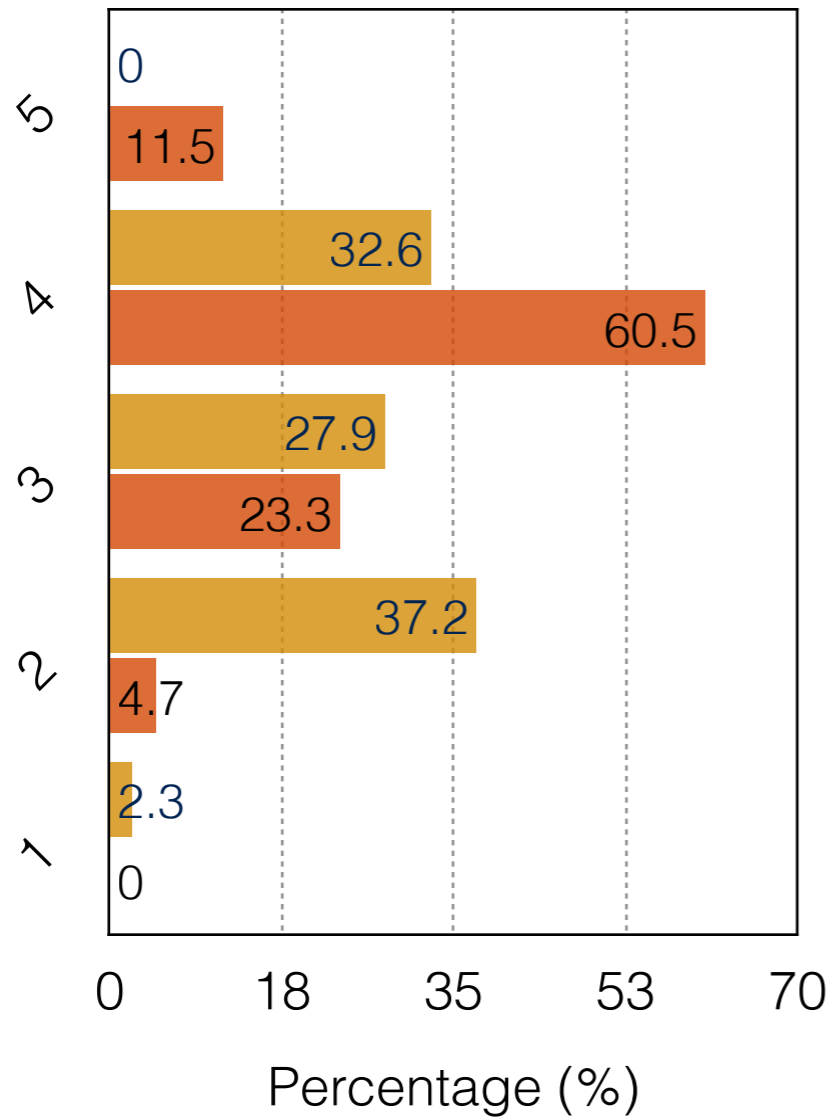


**Q3&4: Attitude and
awareness toward
Cardiology Therapeutics**

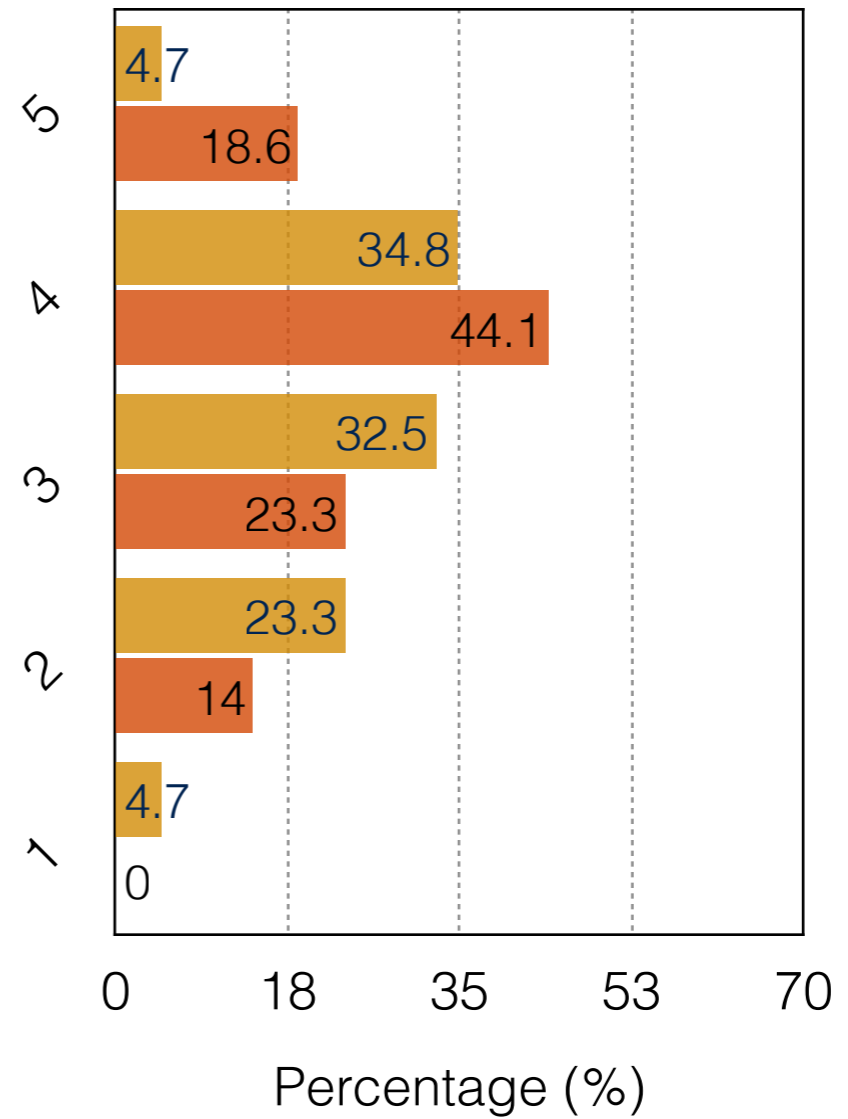


■ Before ■ After

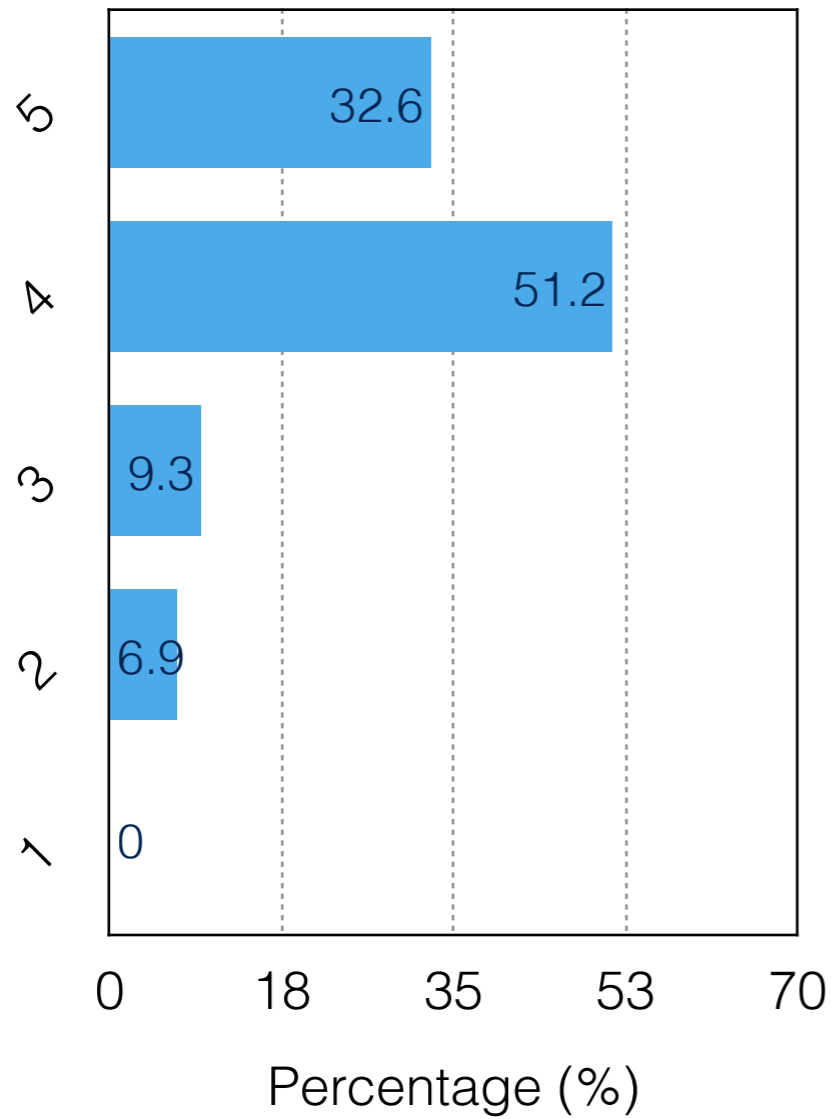
Q5&6: View on e-learning in cardiology module



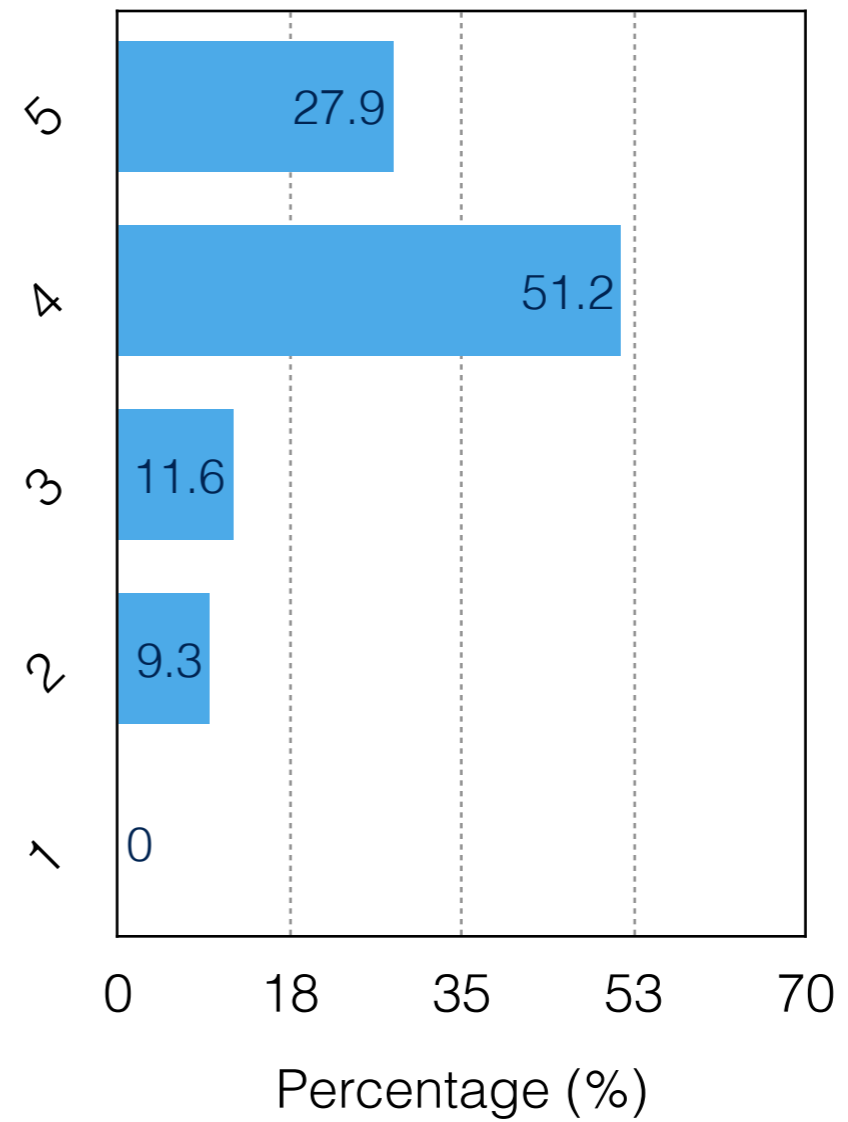
Q7&8: Interest in using e-learning platform for study



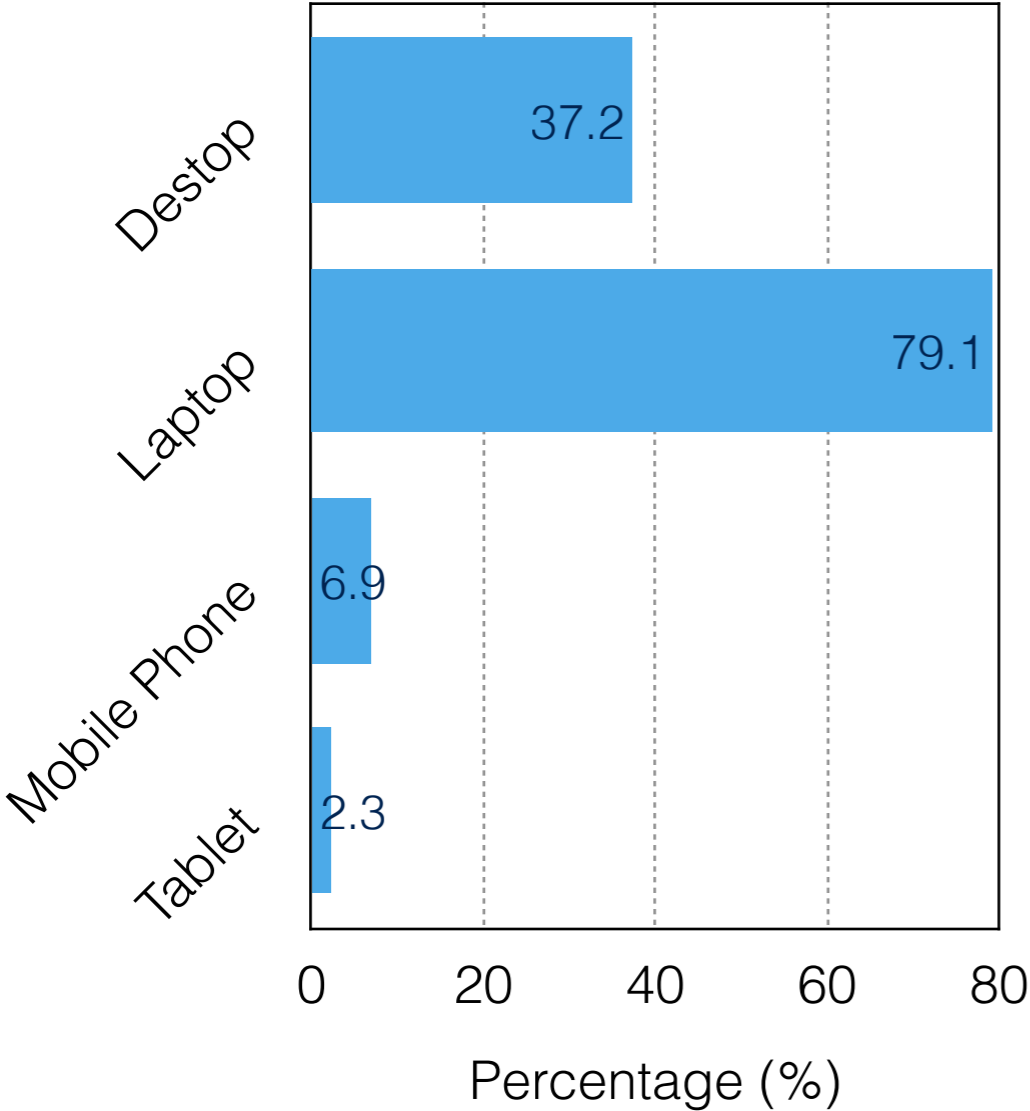
Q9: Micro-modules helpful in understanding cardiology module



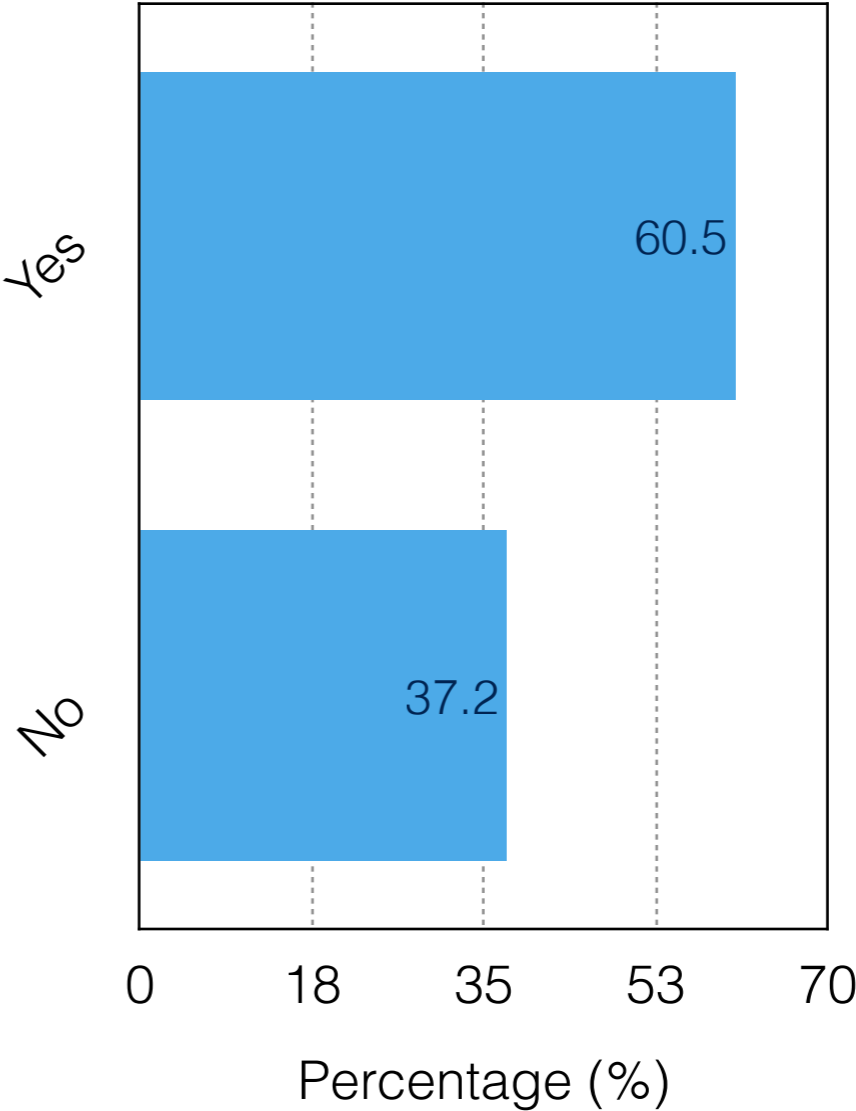
Q10: Micro-modules enhance understanding and stimulate interest in classroom teaching



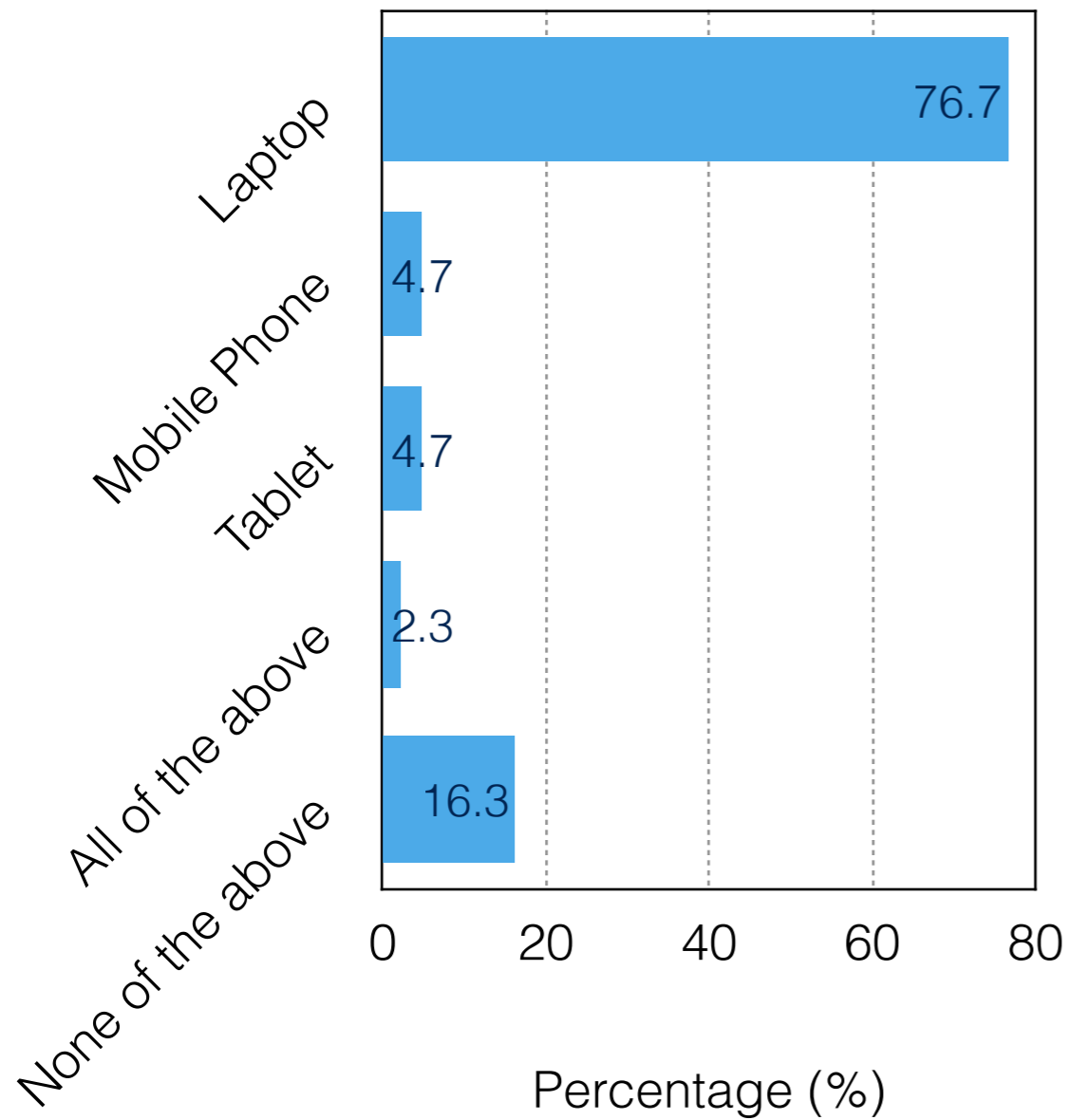
Q11: What kinds of devices did you use?



Q12: Did you discuss the micro-module material with classmates?

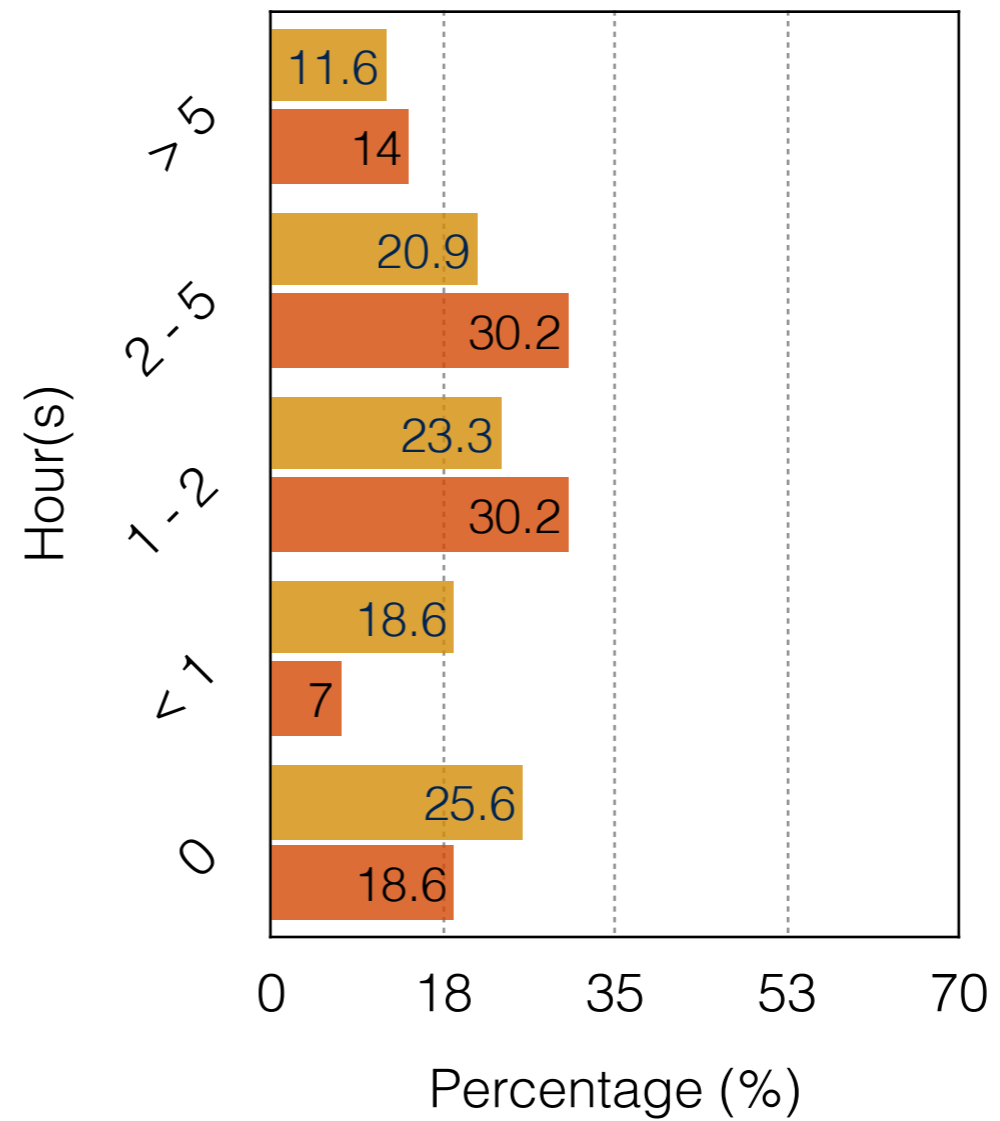


Q13: Mobile handheld device (MHD) used in this e-learning exercise

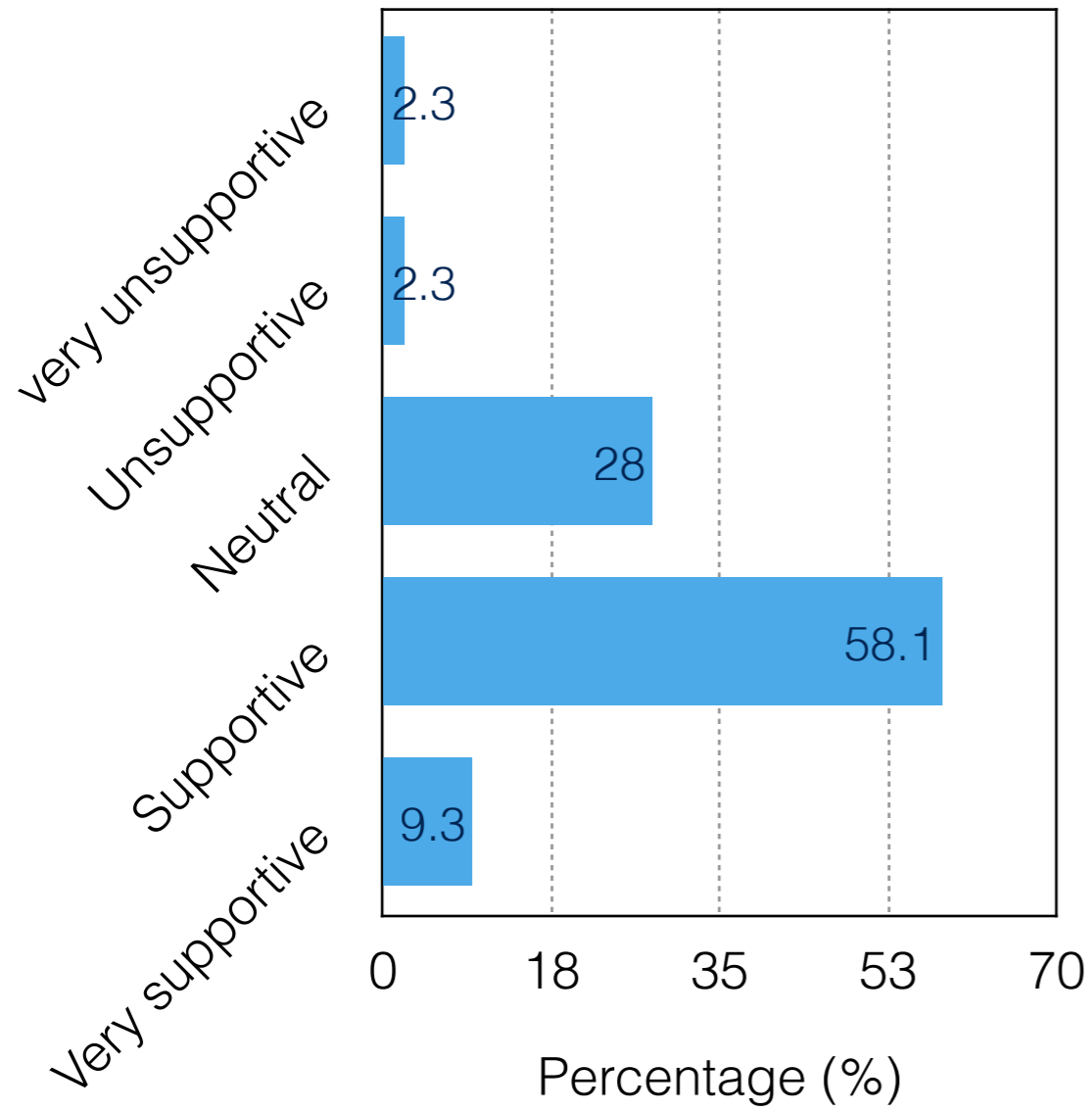


Before After

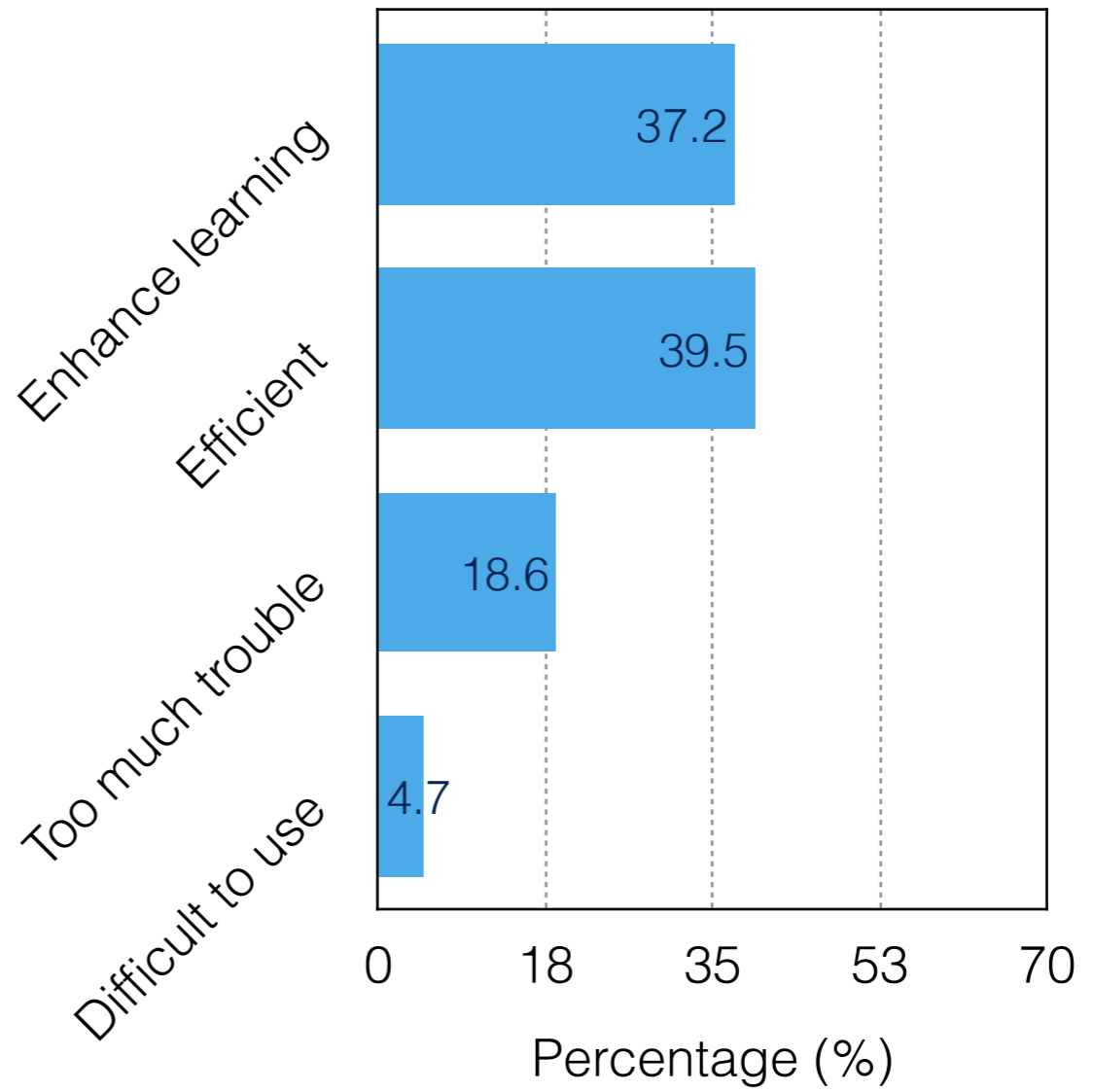
Q14&15: Hours spent on using MHD for study in a week



Q16: View on MHD in teaching and learning



Q17: Did you discuss the micro-module material with classmates?



Other comments / Areas for improvement

1	Slide for micro-module can be uploaded prior to uploading videos, so we can jot down main points in the video.	2	Optimal pre-lecture (a skim through/summary) of lecture notes will be great, thanks!
3	Can you change all micromodules that are .mov Into .mp4 format as it is quite troublesome to open .mov files, they need to be first downloaded and sometimes they only have voice but no image. May delete 'This concludes the micromodules of' and just show 'the end' in the ppt slide.	4	1) Please convert tall mov. Files to mp4. files as my computer is not apple and will hang when opening mov., need to download software, poorer compactibility. 2) Please provide slides for micromodules because I would like to print out and study (some slides are not included in lecture notes).
5	It would be better if the videos can be played on Blackboard directly. I need to download the videos everytime, which is not convenient.	6	Not sure about will the material in micro-modules be examined, the materials in micro-modules seem to be additional materials that increase our workload instead of explaining the lecture materials.
7	Recommend to put micro-modules' content back to lecture. Too many micro-modules. Recommend to directly make micro-modules slide instead of in a video clip form. Sometimes can't open the micromodule (software uncompatible).	8	It's really hard to access it, I can watch some on my phone, while some on laptop, It's not motivative if we can't watch it.
9	Please upload the slides so we can jot notes while watching.	10	Informative somehow, sometimes too informative though.
11	Micro-modules doesn't work on mobile phone or tablet and most computers on campus library.	12	I want more case studies and micro-modules.
13	Also include pdf for jotting notes.	14	Can maybe go into a little bit more details? Very helpful in obtaining background knowledge.

The evaluation summary. I would like to highlight the following points for the panel:

1. Students' understanding of cardiology therapeutics increased from 41.9% to 67.4% (net increase: 25.5%) after the implementation of the micro modules.
2. Students' attitude and awareness toward cardiology therapeutics increased from 27.9% to 76.7% (net increase: 48.8%) after the implementation of the micro modules.
3. Students' interest in using e-learning platform for study increased from 39.5% to 62.7% (net increase: 23.2%) after the implementation of the micro modules.
4. 83.8% of students found that micro modules were helpful in understanding cardiology pharmacology and therapeutics.
5. 79.1% of students found that micro modules enhanced understanding and stimulate interest in classroom teaching.

We do receive comments related to the format of the videos posted on the blackboard that may not work for certain handheld devices and the videos may not play well. I will need to further discuss those technical problems with colleagues in CLEAR. Students want more micro modules.