

## Spikker - Sieverink, B. (CES)

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**From:** Poel, M. (EWI)  
**Sent:** woensdag 4 november 2015 8:14  
**To:** Haverkort, B.R.H.M. (EWI)  
**Cc:** Spikker - Sieverink, B. (CES)  
**Subject:** OLC: Evaluatie Module 8 voor Create

Goedemorgen Boudewijn,

De OLC Create/HMI wil via deze email het module team van Create Module 8 (Data: From the Source to the Senses) complimenteren met de positieve evaluaties en het verbeterplan zoals dat door jouw via de email is verstuurd. Ten opzichte van vorig jaar zijn er grote stappen gemaakt.

Wel willen we nog een opmerking plaatsen: Graag zouden we zien dat de evaluaties en het verbeterplan in het module dossier opgenomen wordt. Maar dat is iets voor volgende keer.

Mvg.

Mannes Poel  
Namens de OLC Create/HMI

=====  
Mannes Poel  
Dept. of Computer Science  
Human Media Interaction group  
University of Twente  
P.O. Box 217  
7500 AE Enschede  
The Netherlands  
email: m.poel@utwente.nl  
skype: mannes.poel  
tel: +31-(0)53-4893920

## Spikker - Sieverink, B. (CES)

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**From:** Poel, M. (EWI)  
**Sent:** woensdag 4 november 2015 8:50  
**To:** Spikker - Sieverink, B. (CES)  
**Subject:** FW: OLC: Evaluatie Module 8 voor Create

Reactie Boudewijn.

Mvg.

Mannes

=====  
Mannes Poel  
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Human Media Interaction group  
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7500 AE Enschede  
The Netherlands  
email: m.poel@utwente.nl  
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tel: +31-(0)53-4893920

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**From:** Boudewijn Haverkort [mailto:b.r.h.m.haverkort@utwente.nl]  
**Sent:** woensdag 4 november 2015 8:47  
**To:** Poel, M. (EWI) <m.poel@utwente.nl>  
**Cc:** Yuri Engelhardt <yuri.engelhardt@gmail.com>; Mader, A.H. (EWI) <a.h.mader@utwente.nl>; Faber, E.J. (EWI) <e.j.faber@utwente.nl>; Aly, R.B.N. (EWI) <r.aly@utwente.nl>; Zwiers, J. (EWI) <j.zwiers@utwente.nl>  
**Subject:** Re: OLC: Evaluatie Module 8 voor Create

Beset Mannes,

hartelijk dank; het is prettig om zo'n compliment te krijgen! Ik kan me niet herinneren dat ik eerder aan de UT vanuit een OLC zo'n compliment heb mogen ontvangen.

Ik stuur deze complimenten hiermee ook door aan het hele team!

Groet,  
Boudewijn.

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On 04/11/15 08:13, Poel, M. (EWI) wrote:

Goedemorgen Boudewijn,

De OLC Create/HMI wil via deze email het module team van Create Module 8 (Data: From the Source to the Senses) complimenteren met de positieve evaluaties en het verbeterplan zoals dat door jou via de email is verstuurd. Ten opzichte van vorig jaar zijn er grote stappen gemaakt.

Wel willen we nog een opmerking plaatsen: Graag zouden we zien dat de evaluaties en het verbeterplan in het module dossier opgenomen wordt. Maar dat is iets voor volgende keer.

Mvg.

Mannes Poel  
Namens de OLC Create/HMI

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7500 AE Enschede  
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Prof. Dr. Ir. Boudewijn R. Haverkort  
University of Twente  
Design and Analysis of Communication Systems  
P.O. Box 217, 7500 AE Enschede, the Netherlands  
<http://www.utwente.nl/ewi/dacs/staff/brh/>  
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# Evaluation TOM 8

2015/05/12

Present students	Kevin, Abel, Dennis, Thijs
Present committee members	Jelle (Chairman) & Ruben (Secretary)
Present teachers	Boudewijn Haverkort

Opening of the meeting at 12:49.

## General Remarks

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Bij elk vak moet een nieuw groepje gemaakt aan worden, dat mag je zelf maken. Je was 1,5 week bezig met groepjes maken. Kevin is vergeetachtig! Liever 1 groep die voor de hele module zit.

De indeling van alles 1 dag, is heel elegant maar voor project is het fijner om meer tijd er tussen te zitten om over na te denken. Weinig contact tijd bij Hybrid Worlds. Alles het 1 dag is dat het te veel wordt elke dag.

Er is een te grote werkdruk dat je buiten ook nog 10 uur moet maken.

Bent lang achter elkaar hetzelfde doen. Je bent klaar met hetzelfde de hele dag lang.

CANVAS, PEERWISE en Blackboard door elkaar gebruikt. Info loopt daardoor langs elkaar heen, maar wordt langzaam beter. Wordt wel goed gewerkt door docenten om dit op te lossen.

De classroom of the future hangt geen werksfeer, maar dat hangt af per persoon. Abel vindt het wel fijn. Is wel heel rumoerig. Zitten ook heel veel kinderziektes in de shared screens.

EERDER matlab gebruiken in het curriculum bijv. 1<sup>e</sup> kwartiel ST.

Module zit goed in elkaar.

## Courses

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### Hybrid Worlds

Mader geeft goed lecture. Onduidelijke opdracht wat je met zoveel mensen moet doen?

Twee dag delen had beter gewerkt.

Er zijn manuals, readers is heel handig.

Alleen jammer dat de workshops zijn afgelast.

Ze willen een duidelijkere opdracht wat ze zelf moeten maken.

Het idee past binnen het CreaTe curriculum.

Heel leerzaam om met grote groepen te werken (leerervaring).

### Data Visualization

Yuri is een ervaring, hij is heel enthousiast over zijn stof.

Hij pauzeert al de filmpjes om dan hetzelfde te herhalen.

Te veel onderbrekingen.

Gaat nu echt beginnen.

Peer to peer wordt meer gebruikt om vragen te maken bij filmpjes kijken.

Het zou minder in 1 keer, niet alle vakken tegelijk.

Kan goed omgaan met kritiek.

## Internet Technology

Sommige vonden Anna te snel over de stof

Prima vak, zit een boek bij en hij is wel nuttig.

Het boek is meer een verdieping op de lectures

## Data Driven Applications

Je moest verplicht 4 stukjes per opdracht reviewen. De hoeveelheid is te groot en je hebt er geen zin. Te veel in 1 keer. Minder nakijken, geeft wat rust, voorkeur van studenten. Wel handig als het gedaan wordt. Prima uitleg, genoeg werk, gaat goed, inhoudelijk goed.

## New Media Deepening

Ze moesten er 10:15 er zijn en Job Zwiers had zich niet voorbereid en moest ter plekke zijn slides maken. Die pas om 12:00 begon. Hij gaf een lecture over unity als je bepaalde tutorials zou moeten volgen. Hij verwijst alleen maar tutorials, hij vertelt veel over de technische achtergrond. Hij weet zijn kennis niet overbrengen, mist didactische vaardigheden. Zijn prima tutorials. Leuk dat je eigen opdracht mag doen op het laatste gedeelte

## Biosignals and Medical Electronics

Super interessant en zit goed in elkaar. Gastcollege paste bij de stof. Iedereen gaat graag naar college. Goed voorbereid, samenhangend verhaal en tof onderwerp. Matlab is a bitch! Abel zegt voor de 30x dat hij er vorige week niet was. Matlab is wel chill omdat het een globaal programma is.

## Tutoring

Onduidelijkheid over inschrijven minor. Niemand heeft een idee wat er moet gebeuren.

## Closing

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Closing of the meeting at 13:37

# Evaluation TOM 8

2015/05/26

Present students	Shanna, Wouter, Freek, Raoul, Mitchell
Present committee members	Beerend (Chairman) & Jelle (Secretary)
Present teachers	Erik Faber, Yuri Engelhardt

Opening of the meeting at 12:46.

## General Remarks

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There are 3 different platforms on which you have to work (blackboard, PeerWise, canvas), this is very annoying when you have to find things. They explained that it was separated for the functionality but it is still annoying.

This module, the point of DDA and DV is that students look at each other's work and grade each other. This is a good idea, but it needs much finetuning (*see below for details*). Maybe it would be an idea that a student assistant also looks at the work to check the peers. The peer-to-peer system could also be put in the first year of CreaTe.

What you basically need to do this module isn't that hard, but teachers just spend too much time on the subjects in class.

## Courses

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### Data Visualisation

It's pretty annoying that you are called to the front and sent back to the cubicles multiple times so you can't really work hard on something.

The teacher is very enthusiast though and explains very well. Sometimes the explanations are too long while it's not necessary.

It might be better to peer review using groups of 4 instead of doing it alone.

If you look at the time pressure, DV is pretty good if the lecture schedule is redone.

### Data Driven Applications

The teacher asked students if they wanted to work on a peer to peer base (where students look at each other's work) or have the exam made by the teacher, but that this last option would be much more difficult, so people automatically chose the peer-to-peer. The idea isn't bad, it's just that there are so many assignments and you need to review so many other works that you are

really tempted to skip over it quickly. It is annoying that there are a lot of small assignments which you have to peer review instead of one big one.

It was also needed that you review others in the start of the module when you were still learning, so you don't really know who is wrong and who is right.

### Internet Technology

People don't really understand how the information given is relevant, it seems more like a computer science class. A lot of students don't visit the lectures because they seem boring but have trouble with the assignments because they are really hard. A lot of the information goes too deep into the theory than which is necessary for CreaTe.

### NM Deepening

New media is mostly following internet tutorials. There should be a lot more material because the lectures are very slow paced. The tutorials are quite clear though.

### ST Deepening

The material fits very well and everything is really clear. Very nice!

### Hybrid Worlds

A lot of classes didn't happen because Mondays were often skipped because of holidays. Students thought that 8 weeks worth of time is too much for generating ideas and selecting one but are afraid that in the final 2 weeks they would be very busy.

### Closing

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Closing of the meeting at 13:42

----- Forwarded Message -----

**Subject:**Evaluation M8/Create (20 augustus 2015)

**Date:**Fri, 21 Aug 2015 08:46:07 +0200

**From:**Boudewijn Haverkort <[b.r.h.m.haverkort@utwente.nl](mailto:b.r.h.m.haverkort@utwente.nl)>

**To:**[brh@ewi.utwente.nl](mailto:brh@ewi.utwente.nl) <[brh@ewi.utwente.nl](mailto:brh@ewi.utwente.nl)>

- nog beter aangeven aan studenten wat er wanneer moet gebeuren.
- stroomlijnen media-gebruik (osiris, blackboard, etc.); hoe zetten we de cijfers neer, en waar?
- betere verdeling van toets-momenten + deadlines over kwartiel (onderlinge afspraken over maken)
- klassikaal inplannen van kwaliteits-enquete (om hogere response te krijgen)
- veranderingen bij DV (minder classroom of the future), minder verschillende tools gebruiken
- data-driven applications: verbetering van college en opdrachten
- probleem met programmeer-kennis (SQL, PHP)? kunnen studenten zelf daar ook zelf iets aan doen?
- balans in kwaliteit/omvang new media vs. smart technology (vanwege verandering bij NM komt dit sowieso aan de orde)
- deel van job zwiers gaat weg, wordt ingevuld door chris vermaas (IO) op gebied "narration & graphic design"
- idee Angelika mbt project deel: zou graag gaan richting wearables, bio-sensing, etc.
- ethical issues (gebruik van dieren/vissen) --> moeten ze daar wat over zeggen, of bijv over bio-meetdata (van elkaar)

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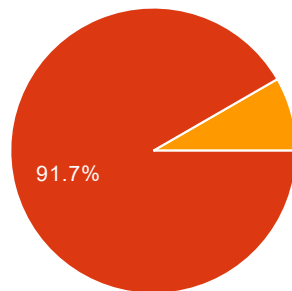
# 12 responses

[View all responses](#)[Publish analytics](#)

## Summary

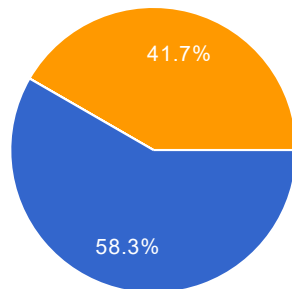
### General questions

#### Year your programme started



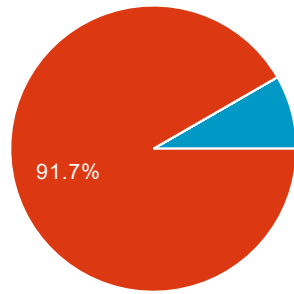
2014	0	0%
2013	11	91.7%
2012	1	8.3%
2011 or earlier	0	0%

#### My native language is



Dutch	7	58.3%
English	0	0%
Other	5	41.7%

#### Programme

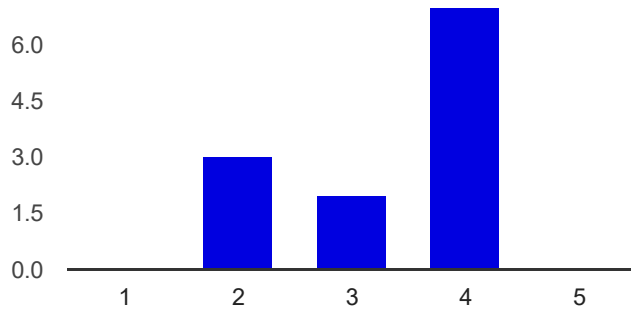


TW	0	0%
Other	1	8.3%

## Hybrid Worlds project

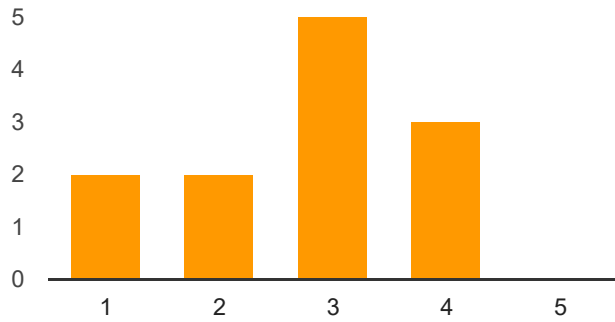
### Good teaching, Learning

The teaching staff of this part of the module motivated me to do my best work.



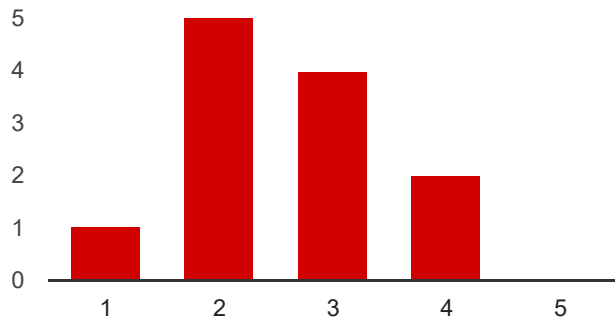
Not in agreement: 1	0	0%
2	3	25%
3	2	16.7%
4	7	58.3%
In agreement: 5	0	0%

The teaching staff of this part of the module normally gave me helpful feedback on how I was going.



In agreement: 5 0 0%

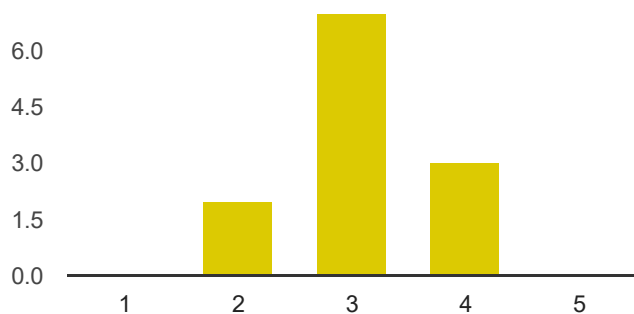
**During this part of the module I knew what was expected of me.**



Not in agreement: 1 1 8.3%  
2 5 41.7%  
3 4 33.3%  
4 2 16.7%  
In agreement: 5 0 0%

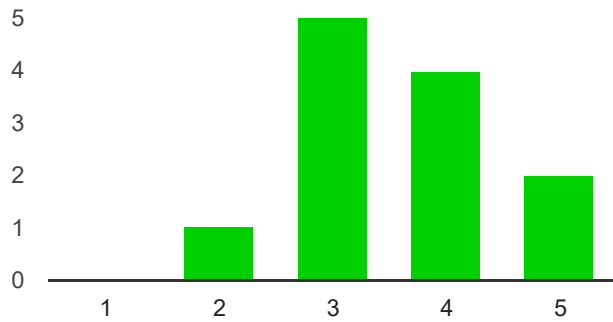
## Organization, Study load

**This part of the module was well organized.**



Not in agreement: 1	<b>0</b>	0%
2	<b>2</b>	16.7%
3	<b>7</b>	58.3%
4	<b>3</b>	25%
In agreement: 5	<b>0</b>	0%

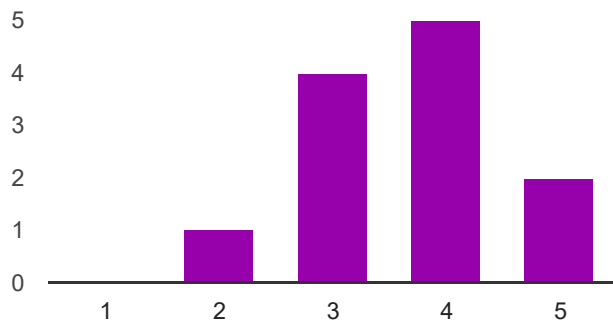
**For this part of the module, the amount of study time I had to put in was doable.**



Not in agreement: 1	<b>0</b>	0%
2	<b>1</b>	8.3%
3	<b>5</b>	41.7%
4	<b>4</b>	33.3%
In agreement: 5	<b>2</b>	16.7%

## Examination

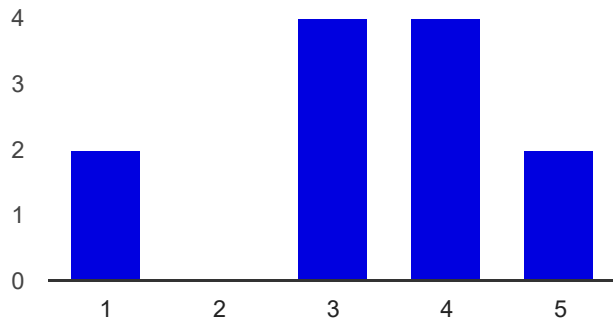
**The form of examination chosen in this module was suitable.**



Not in agreement: 1	<b>0</b>	0%
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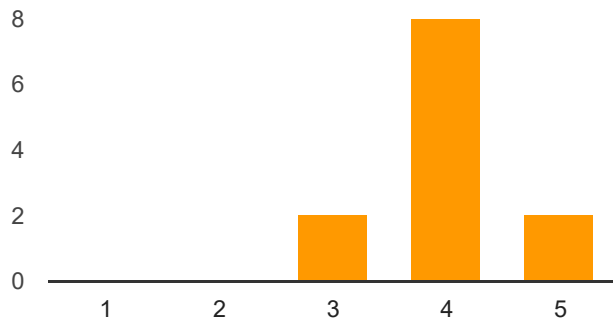
	2	1	8.3%
	3	4	33.3%
	4	5	41.7%
In agreement:	5	2	16.7%

**The available time for the examination was enough.**



Not in agreement:	1	2	16.7%
	2	0	0%
	3	4	33.3%
	4	4	33.3%
In agreement:	5	2	16.7%

**I knew on beforehand what the method of examination would be**

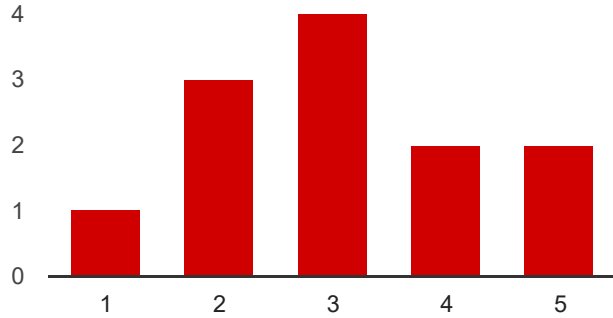


Not in agreement:	1	0	0%
	2	0	0%
	3	2	16.7%
	4	8	66.7%
In agreement:	5	2	16.7%

# Data Visualisation

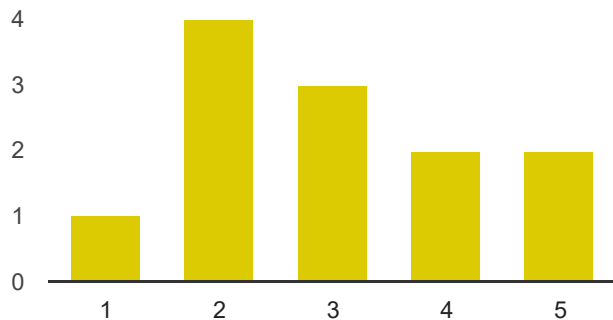
## Good teaching, Learning

The teaching staff of this part of the module motivated me to do my best work.



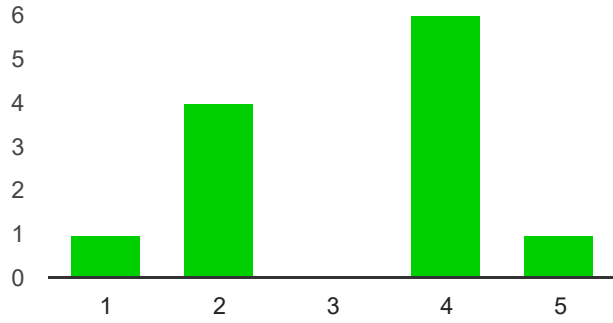
Not in agreement:	1	<b>1</b>	8.3%
	2	<b>3</b>	25%
	3	<b>4</b>	33.3%
	4	<b>2</b>	16.7%
In agreement:	5	<b>2</b>	16.7%

The teaching staff of this part of the module normally gave me helpful feedback on how I was going.



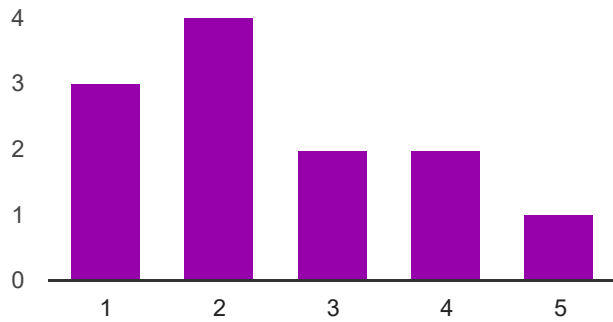
Not in agreement:	1	<b>1</b>	8.3%
	2	<b>4</b>	33.3%
	3	<b>3</b>	25%
	4	<b>2</b>	16.7%
In agreement:	5	<b>2</b>	16.7%

**During this part of the module I knew what was expected of me.**



Not in agreement:	1	<b>1</b>	8.3%
	2	<b>4</b>	33.3%
	3	<b>0</b>	0%
	4	<b>6</b>	50%
In agreement:	5	<b>1</b>	8.3%

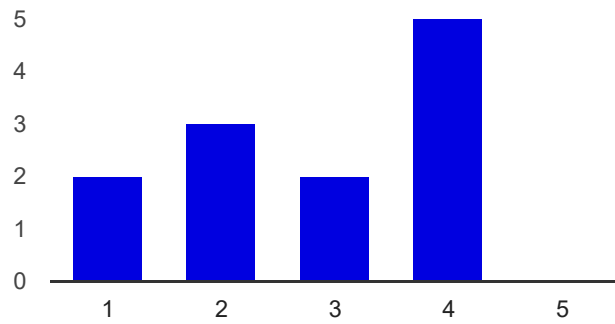
**The teaching and learning in this part of the module had a good fit with how I learn.**



Not in agreement:	1	<b>3</b>	25%
	2	<b>4</b>	33.3%
	3	<b>2</b>	16.7%
	4	<b>2</b>	16.7%
In agreement:	5	<b>1</b>	8.3%

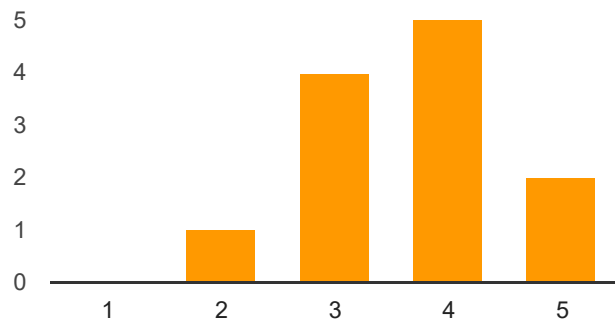
**Organization, Study load**

**This part of the module was well organized.**



Not in agreement:	1	<b>2</b>	16.7%
	2	<b>3</b>	25%
	3	<b>2</b>	16.7%
	4	<b>5</b>	41.7%
In agreement:	5	<b>0</b>	0%

**For this part of the module, the amount of study time I had to put in was doable.**

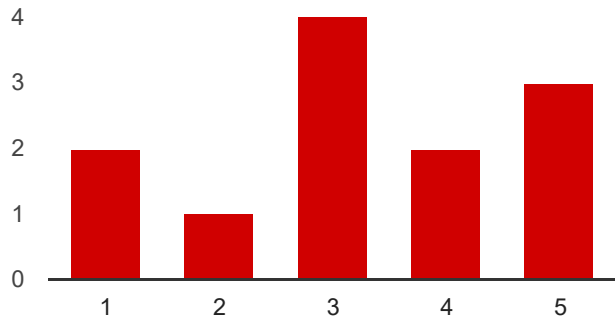


Not in agreement:	1	<b>0</b>	0%
	2	<b>1</b>	8.3%
	3	<b>4</b>	33.3%
	4	<b>5</b>	41.7%
In agreement:	5	<b>2</b>	16.7%

## Study material, Assignments

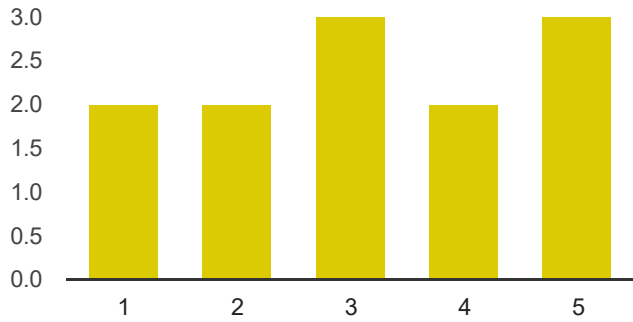
**The study material had a good fit with the subject of this part of the module.**





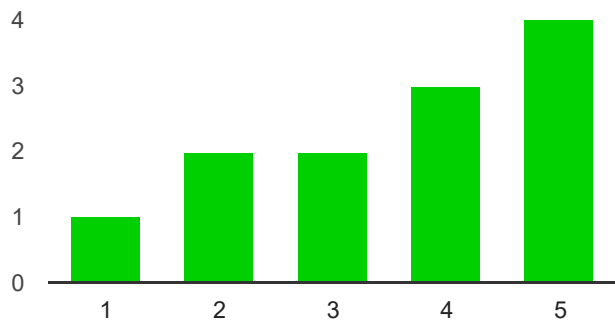
3 4 33.3%  
4 2 16.7%  
In agreement: 5 3 25%

**The assignments were useful.**



Not in agreement: 1 2 16.7%  
2 2 16.7%  
3 3 25%  
4 2 16.7%  
In agreement: 5 3 25%

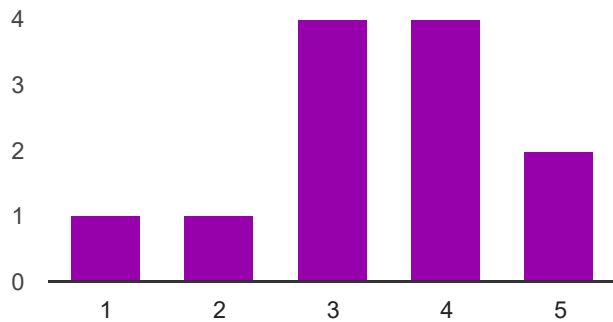
**The level of the assignments was appropriate.**



Not in agreement:	1	1	8.3%
	2	2	16.7%
	3	2	16.7%
	4	3	25%
In agreement:	5	4	33.3%

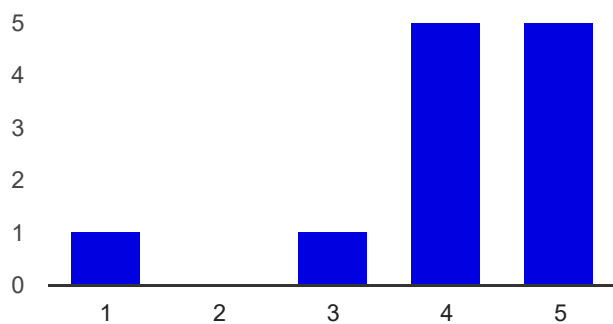
## Examination

The form of examination chosen in this module was suitable.



Not in agreement:	1	1	8.3%
	2	1	8.3%
	3	4	33.3%
	4	4	33.3%
In agreement:	5	2	16.7%

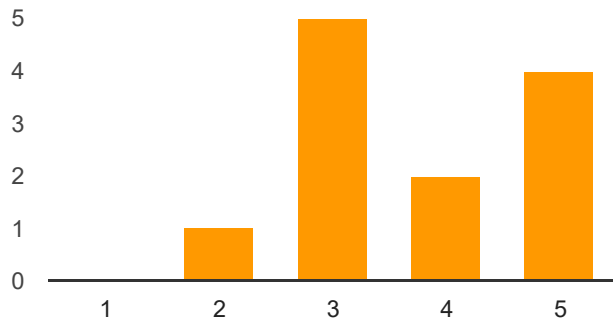
The available time for the examination was enough.



Not in agreement:	1	1	8.3%
	2	0	0%
	3	1	8.3%

4 **5** 41.7%  
In agreement: 5 **5** 41.7%

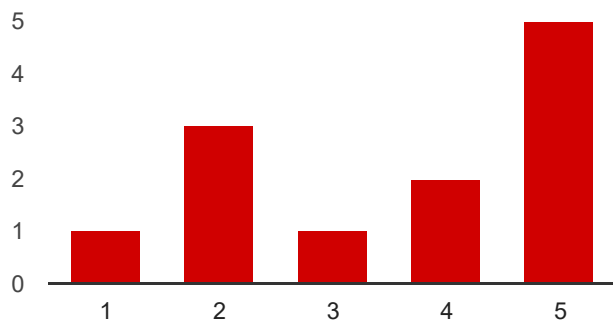
### I had enough time to prepare for the examination



Not in agreement: 1 **0** 0%  
2 **1** 8.3%  
3 **5** 41.7%  
4 **2** 16.7%  
In agreement: 5 **4** 33.3%

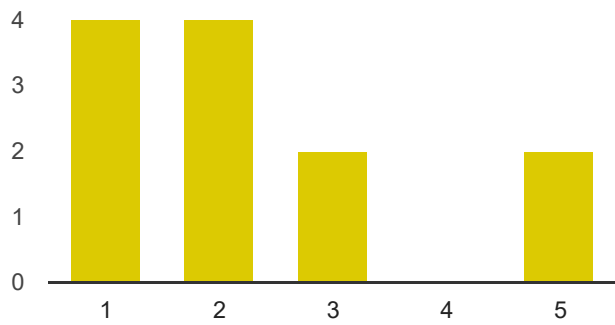
### Custom questions

#### I liked the "living charts" activity outside, on the first day.



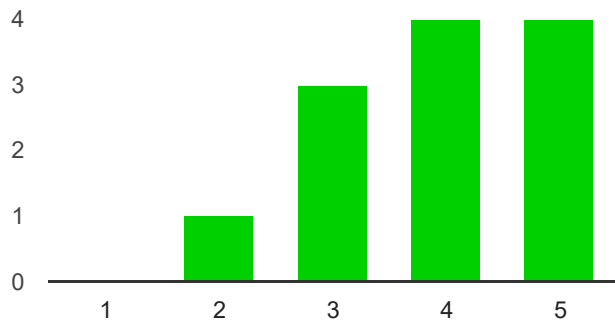
Not in agreement: 1 **1** 8.3%  
2 **3** 25%  
3 **1** 8.3%  
4 **2** 16.7%  
In agreement: 5 **5** 41.7%

**Regarding the room, I prefer the Classroom of the Future to a standard/average location.**



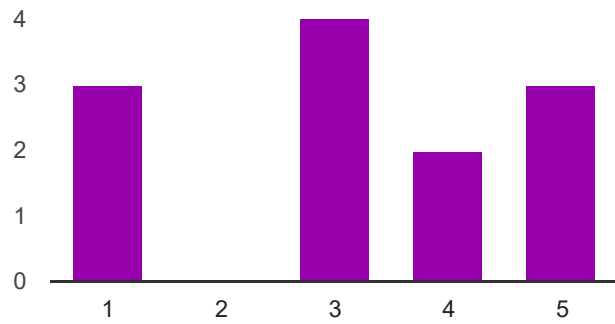
Not in agreement:	1	<b>4</b>	33.3%
	2	<b>4</b>	33.3%
	3	<b>2</b>	16.7%
	4	<b>0</b>	0%
In agreement:	5	<b>2</b>	16.7%

**I would have liked to see more (interesting) visualization examples shown and analyzed in class.**



Not in agreement:	1	<b>0</b>	0%
	2	<b>1</b>	8.3%
	3	<b>3</b>	25%
	4	<b>4</b>	33.3%
In agreement:	5	<b>4</b>	33.3%

**I would have liked to also be given literature to read about data visualization (instead of only videos).**

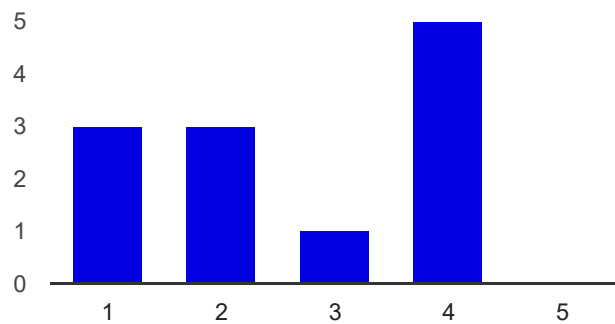


3 4 33.3%

4 2 16.7%

In agreement: 5 3 25%

**Peer reviewing of another (anonymous) student's visualization seems easier to do together in a small group.**



Not in agreement: 1 3 25%

2 3 25%

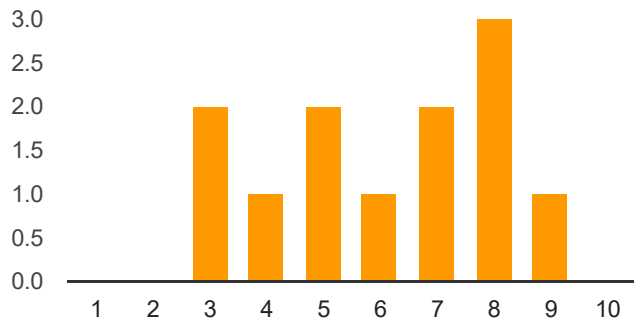
3 1 8.3%

4 5 41.7%

In agreement: 5 0 0%

## Final judgement

**In summary, I give this part of the module the following grade.**

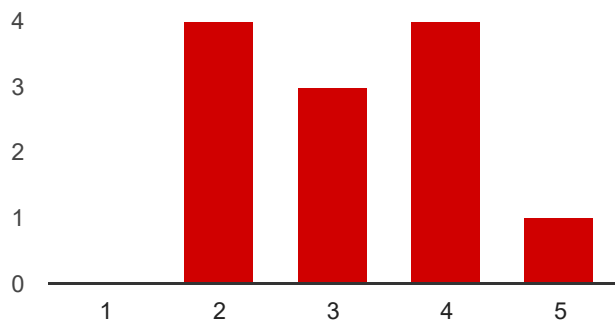


6	1	8.3%
7	2	16.7%
8	3	25%
9	1	8.3%
10	0	0%

## Data-Driven Applications

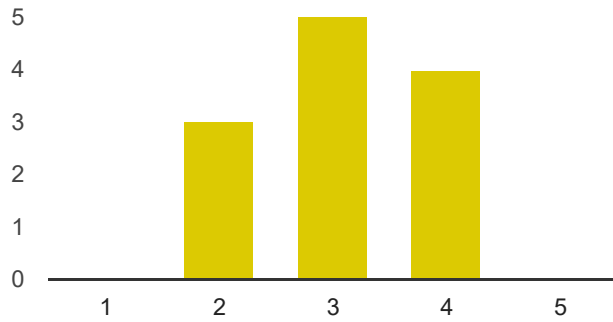
### Good teaching, Learning

The teaching staff of this part of the module motivated me to do my best work.



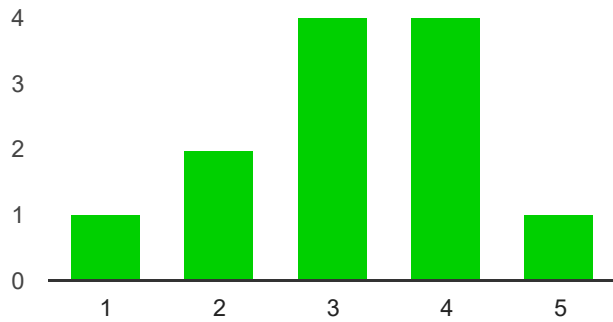
Not in agreement: 1	0	0%
2	4	33.3%
3	3	25%
4	4	33.3%
In agreement: 5	1	8.3%

The teaching staff of this part of the module normally gave me helpful feedback on how I was going.



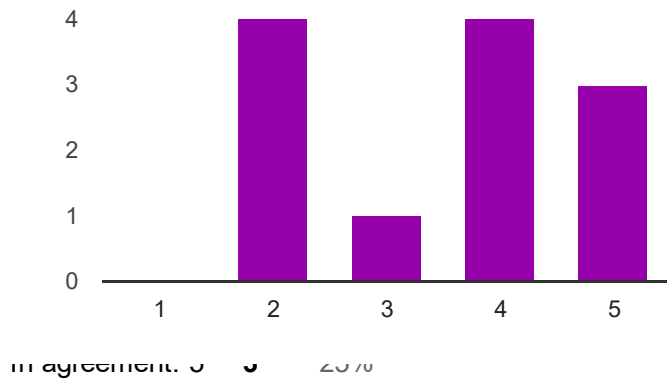
Not in agreement:	1	<b>0</b>	0%
	2	<b>3</b>	25%
	3	<b>5</b>	41.7%
	4	<b>4</b>	33.3%
In agreement:	5	<b>0</b>	0%

**During this part of the module I knew what was expected of me.**



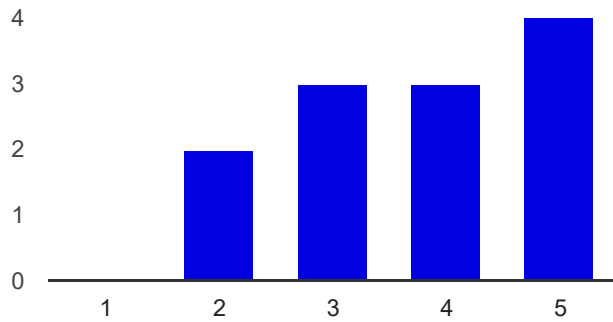
Not in agreement:	1	<b>1</b>	8.3%
	2	<b>2</b>	16.7%
	3	<b>4</b>	33.3%
	4	<b>4</b>	33.3%
In agreement:	5	<b>1</b>	8.3%

**The teaching and learning in this part of the module had a good fit with how I learn.**



## Organization, Study load

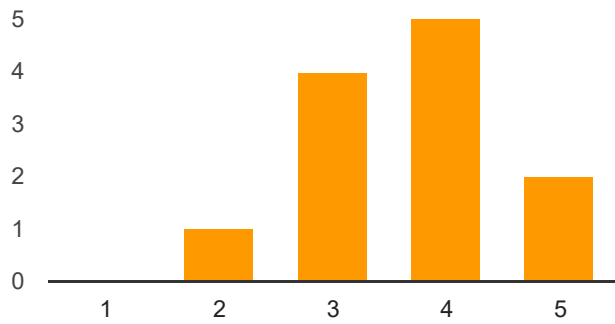
**This part of the module was well organized.**



Not in agreement: 1	<b>0</b>	0%
2	<b>2</b>	16.7%
3	<b>3</b>	25%
4	<b>3</b>	25%
In agreement: 5	<b>4</b>	33.3%

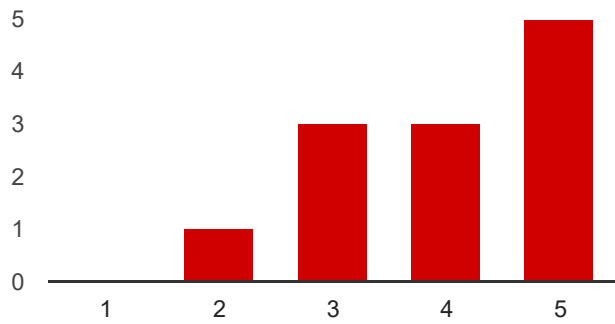
**For this part of the module, the amount of study time I had to put in was doable.**





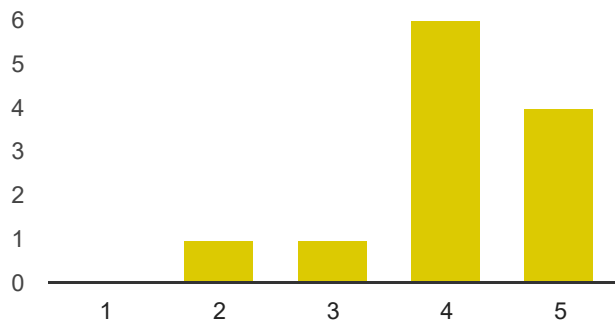
### Study material, Assignments

The study material had a good fit with the subject of this part of the module.



Not in agreement:	1	<b>0</b>	0%
	2	<b>1</b>	8.3%
	3	<b>3</b>	25%
	4	<b>3</b>	25%
In agreement:	5	<b>5</b>	41.7%

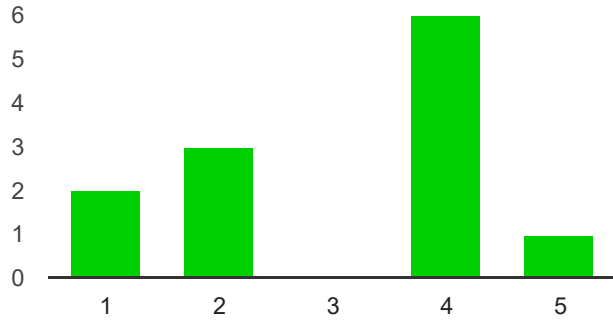
The assignments were useful.



Not in agreement:	1	<b>0</b>	0%
	2	<b>1</b>	8.3%

	3	1	8.3%
	4	6	50%
In agreement:	5	4	33.3%

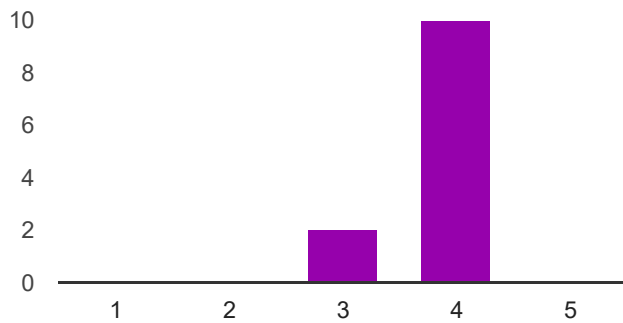
### The level of the assignments was appropriate.



Not in agreement:	1	2	16.7%
	2	3	25%
	3	0	0%
	4	6	50%
In agreement:	5	1	8.3%

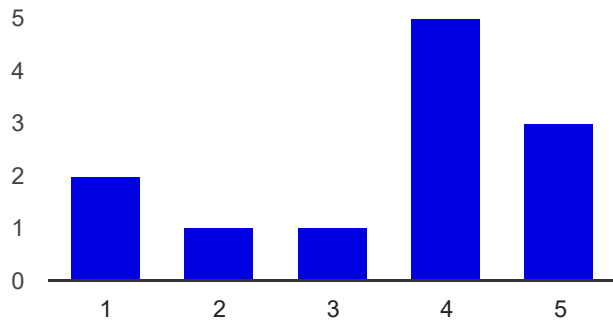
## Examination

### The form of examination chosen in this module was suitable.



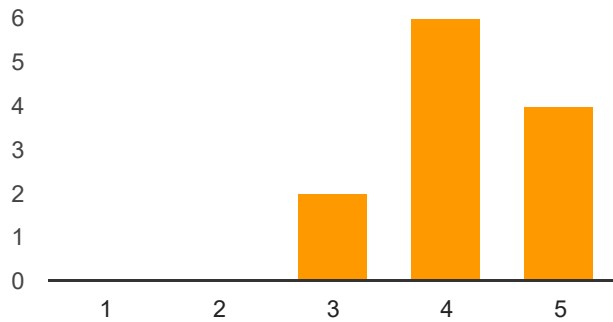
Not in agreement:	1	0	0%
	2	0	0%
	3	2	16.7%
	4	10	83.3%
In agreement:	5	0	0%

**The available time for the examination was enough.**



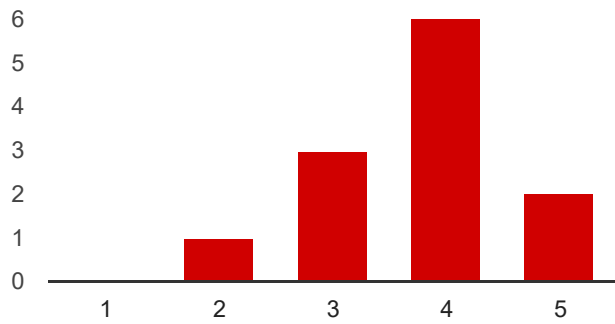
Not in agreement:	1	<b>2</b>	16.7%
	2	<b>1</b>	8.3%
	3	<b>1</b>	8.3%
	4	<b>5</b>	41.7%
In agreement:	5	<b>3</b>	25%

**I knew on beforehand what the method of examination would be**



Not in agreement:	1	<b>0</b>	0%
	2	<b>0</b>	0%
	3	<b>2</b>	16.7%
	4	<b>6</b>	50%
In agreement:	5	<b>4</b>	33.3%

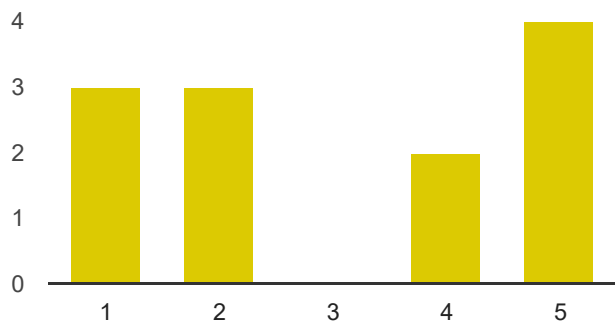
**I had enough time to prepare for the examination**



4 **6** 50%  
 In agreement: 5 **2** 16.7%

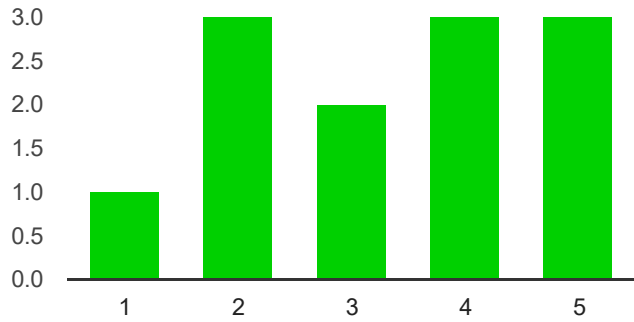
## Custom questions

### Writing peer-reviews helped me in learning the content

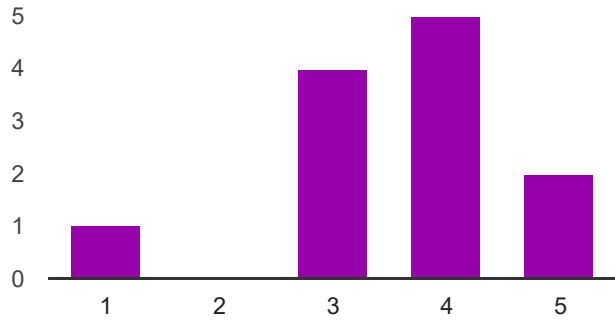


Not in agreement: 1 **3** 25%  
                           2 **3** 25%  
                           3 **0** 0%  
                           4 **2** 16.7%  
 In agreement: 5 **4** 33.3%

### Writing multiple choice questions for my peers helped me.

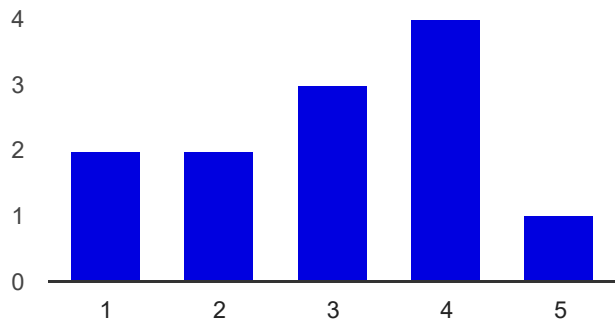


**I liked the "special issue" lecture on Big Data Technology (BigTable, MongoDB)**



Not in agreement:	1	<b>1</b>	8.3%
	2	<b>0</b>	0%
	3	<b>4</b>	33.3%
	4	<b>5</b>	41.7%
In agreement:	5	<b>2</b>	16.7%

**I liked the applied style of the Data Wrestling Workshop**

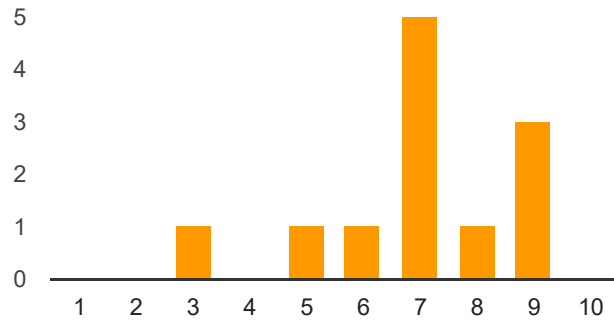


Not in agreement:	1	<b>2</b>	16.7%
	2	<b>2</b>	16.7%
	3	<b>3</b>	25%
	4	<b>4</b>	33.3%

In agreement: 5 1 8.3%

## Final judgement

In summary, I give this part of the module the following grade.

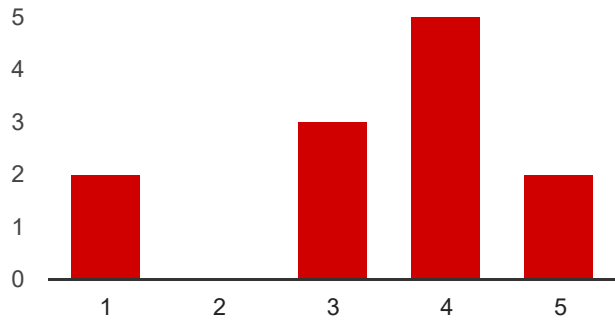


1	0	0%
2	0	0%
3	1	8.3%
4	0	0%
5	1	8.3%
6	1	8.3%
7	5	41.7%
8	1	8.3%
9	3	25%
10	0	0%

## Internet Technology

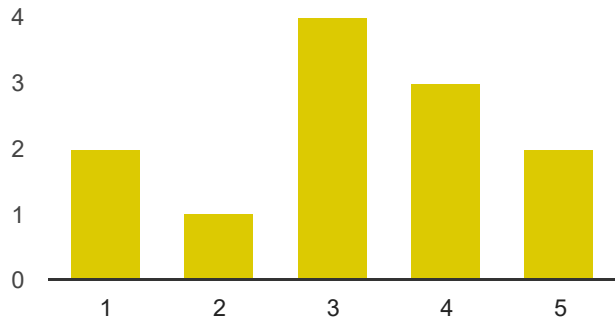
### Good teaching, Learning

The teaching staff of this part of the module motivated me to do my best work.



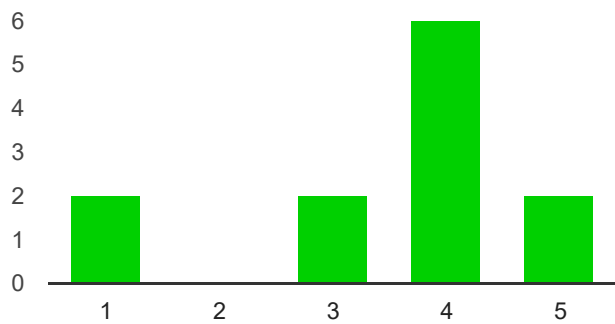
In agreement: 5 2 16.7%

**The teaching staff of this part of the module normally gave me helpful feedback on how I was going.**



Not in agreement: 1 2 16.7%  
2 1 8.3%  
3 4 33.3%  
4 3 25%  
In agreement: 5 2 16.7%

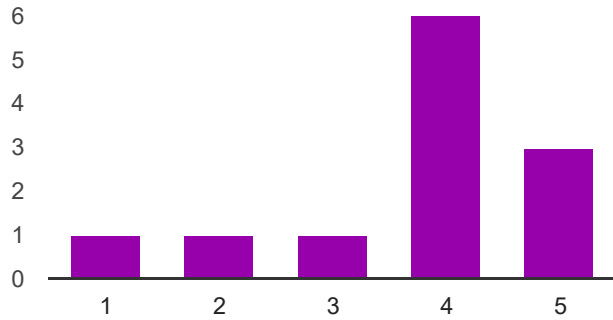
**During this part of the module I knew what was expected of me.**



Not in agreement: 1 2 16.7%

	2	0	0%
	3	2	16.7%
	4	6	50%
In agreement:	5	2	16.7%

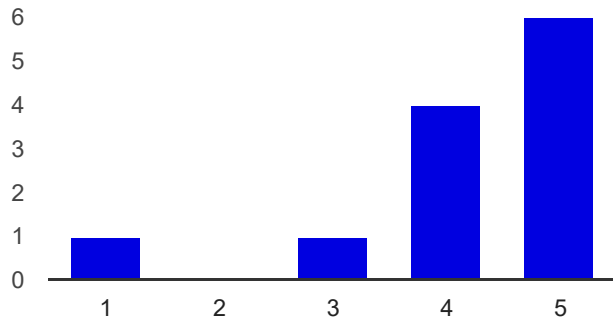
**The teaching and learning in this part of the module had a good fit with how I learn.**



Not in agreement:	1	1	8.3%
	2	1	8.3%
	3	1	8.3%
	4	6	50%
In agreement:	5	3	25%

## Organization, Study load

**This part of the module was well organized.**

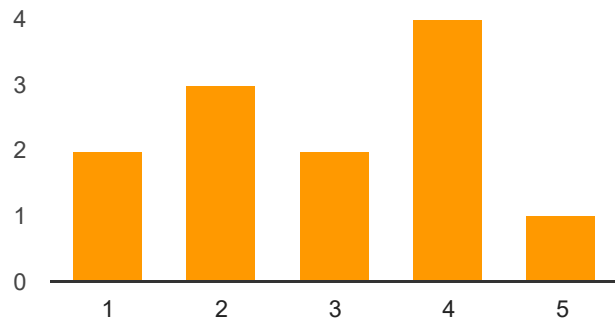


Not in agreement:	1	1	8.3%
	2	0	0%
	3	1	8.3%
	4	4	33.3%



In agreement: 5 **6** 50%

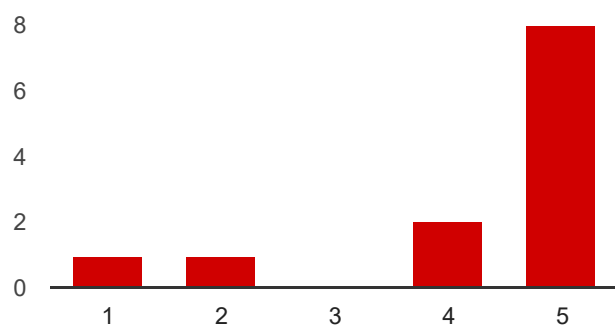
**For this part of the module, the amount of study time I had to put in was doable.**



Not in agreement: 1 **2** 16.7%  
 2 **3** 25%  
 3 **2** 16.7%  
 4 **4** 33.3%  
 In agreement: 5 **1** 8.3%

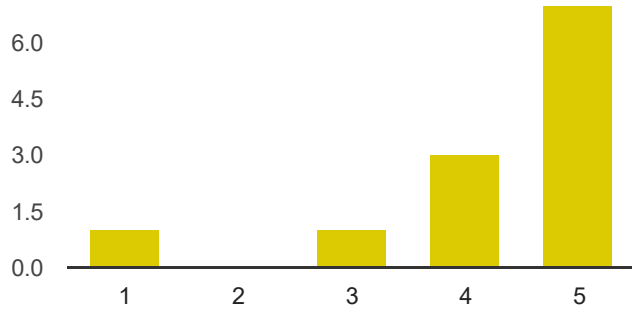
## Study material, Assignments

**The study material had a good fit with the subject of this part of the module.**



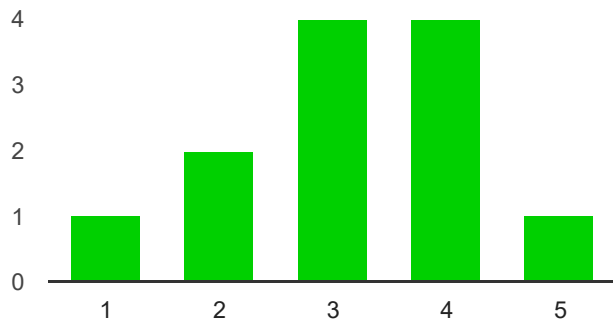
Not in agreement: 1 **1** 8.3%  
 2 **1** 8.3%  
 3 **0** 0%  
 4 **2** 16.7%  
 In agreement: 5 **8** 66.7%

### The assignments were useful.



Not in agreement:	1	<b>1</b>	8.3%
	2	<b>0</b>	0%
	3	<b>1</b>	8.3%
	4	<b>3</b>	25%
In agreement:	5	<b>7</b>	58.3%

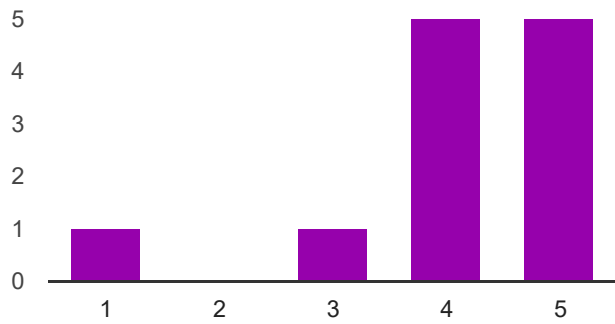
### The level of the assignments was appropriate.



Not in agreement:	1	<b>1</b>	8.3%
	2	<b>2</b>	16.7%
	3	<b>4</b>	33.3%
	4	<b>4</b>	33.3%
In agreement:	5	<b>1</b>	8.3%

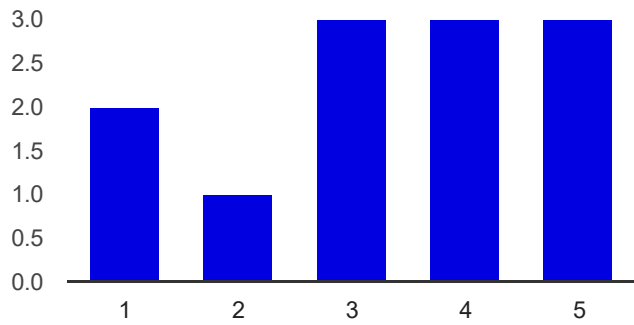
## Examination

The form of examination chosen in this module was suitable.



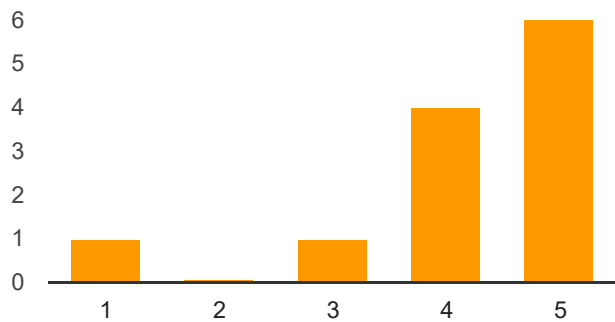
	2	0	0%
	3	1	8.3%
	4	5	41.7%
In agreement:	5	5	41.7%

**The available time for the examination was enough.**



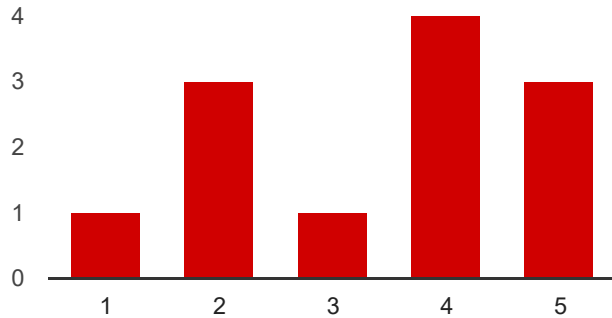
Not in agreement:	1	2	16.7%
	2	1	8.3%
	3	3	25%
	4	3	25%
In agreement:	5	3	25%

**I knew on beforehand what the method of examination would be**



Not in agreement:	1	<b>1</b>	8.3%
	2	<b>0</b>	0%
	3	<b>1</b>	8.3%
	4	<b>4</b>	33.3%
In agreement:	5	<b>6</b>	50%

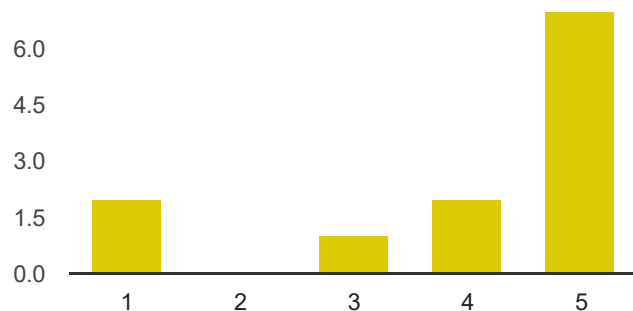
### I had enough time to prepare for the examination



Not in agreement:	1	<b>1</b>	8.3%
	2	<b>3</b>	25%
	3	<b>1</b>	8.3%
	4	<b>4</b>	33.3%
In agreement:	5	<b>3</b>	25%

### Custom questions

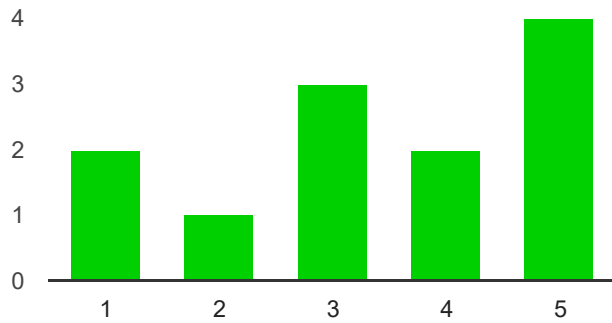
#### Het boek van Kurose & Ross is zeer geschikt voor dit deel



Not in agreement:	1	<b>2</b>	16.7%
	2	<b>0</b>	0%

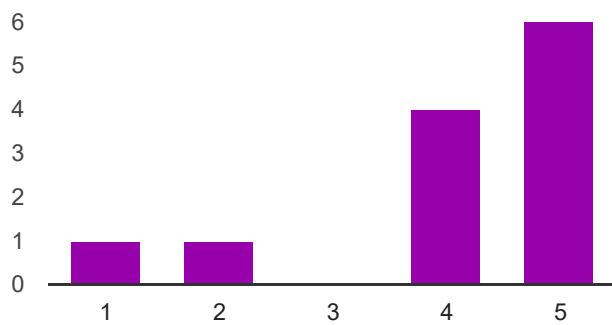
	3	1	8.3%
	4	2	16.7%
In agreement:	5	7	58.3%

### It was a pity that there was no lab work for IT



Not in agreement:	1	2	16.7%
	2	1	8.3%
	3	3	25%
	4	2	16.7%
In agreement:	5	4	33.3%

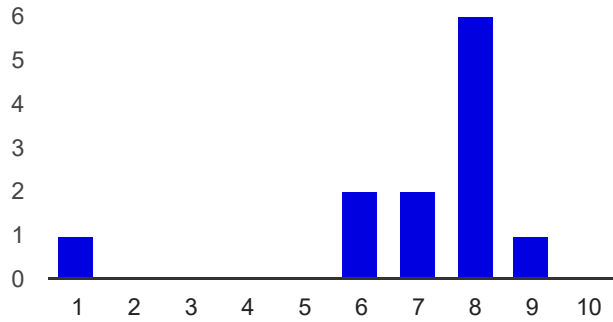
### I liked the lectures more than the tutorials



Not in agreement:	1	1	8.3%
	2	1	8.3%
	3	0	0%
	4	4	33.3%
In agreement:	5	6	50%

### Final judgement

**In summary, I give this part of the module the following grade.**

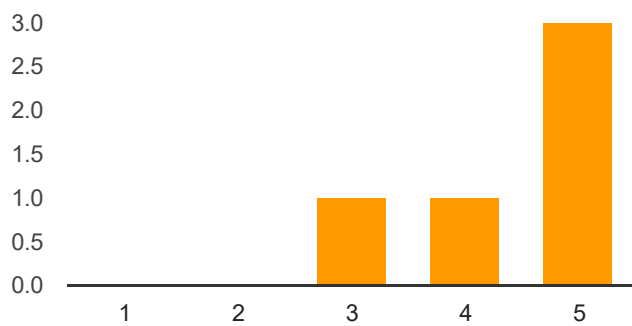


1	<b>1</b>	8.3%
2	<b>0</b>	0%
3	<b>0</b>	0%
4	<b>0</b>	0%
5	<b>0</b>	0%
6	<b>2</b>	16.7%
7	<b>2</b>	16.7%
8	<b>6</b>	50%
9	<b>1</b>	8.3%
10	<b>0</b>	0%

## **Biosignals and Medical Electronics**

### **Good teaching, Learning**

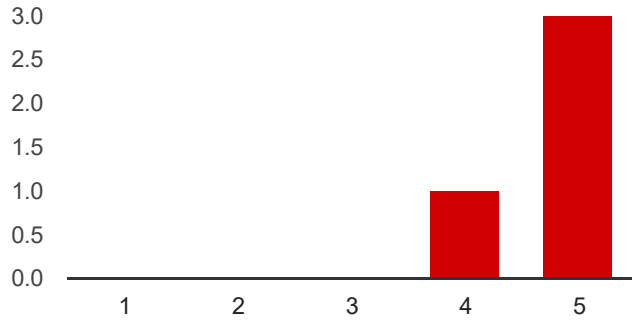
**The teaching staff of this part of the module motivated me to do my best work.**



Not in agreement: 1 **0** 0%

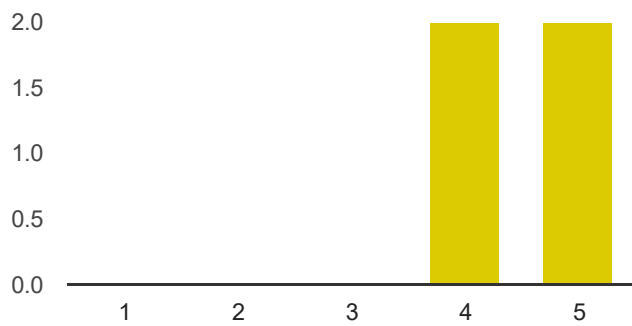
	2	0	0%
	3	1	20%
	4	1	20%
In agreement:	5	3	60%

**The teaching staff of this part of the module normally gave me helpful feedback on how I was going.**



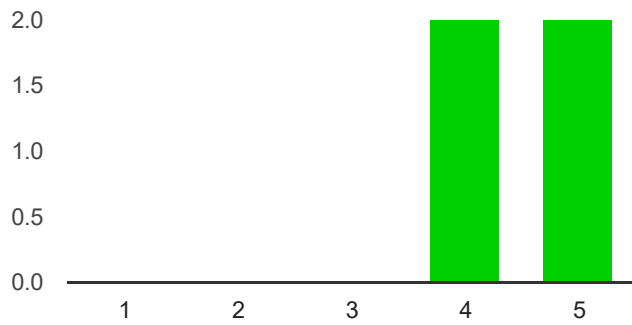
Not in agreement:	1	0	0%
	2	0	0%
	3	0	0%
	4	1	25%
In agreement:	5	3	75%

**During this part of the module I knew what was expected of me.**



Not in agreement:	1	0	0%
	2	0	0%
	3	0	0%
	4	2	50%
In agreement:	5	2	50%

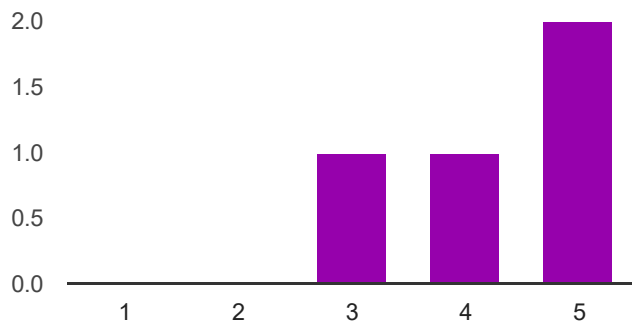
### The teaching and learning in this part of the module had a good fit with how I learn.



Not in agreement:	1	0	0%
	2	0	0%
	3	0	0%
	4	2	50%
In agreement:	5	2	50%

### Organization, Study load

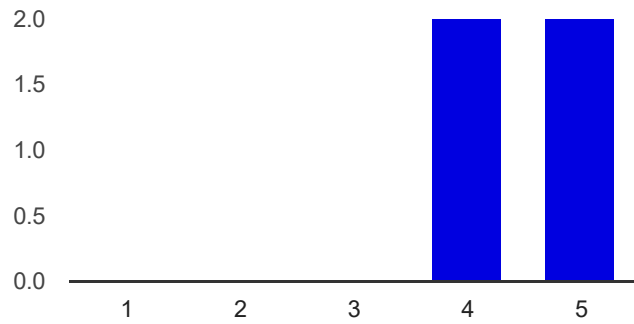
#### This part of the module was well organized.



Not in agreement:	1	0	0%
	2	0	0%
	3	1	25%
	4	1	25%
In agreement:	5	2	50%

#### For this part of the module, the amount of study time I had to put in was doable.

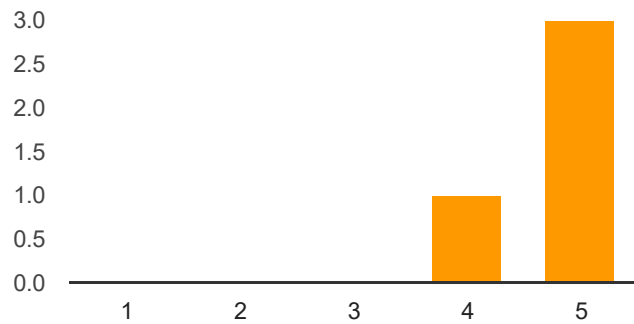




Not in agreement:	1	0	0%
	2	0	0%
	3	0	0%
	4	2	50%
In agreement:	5	2	50%

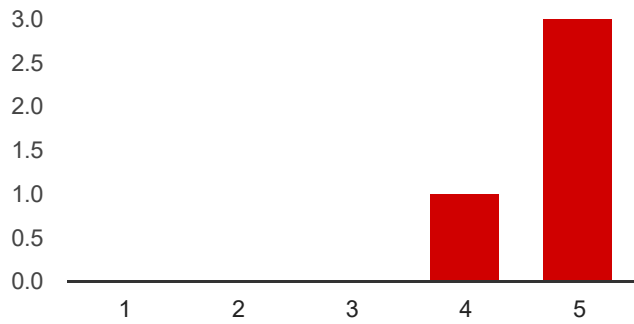
## Study material, Assignments

The study material had a good fit with the subject of this part of the module.



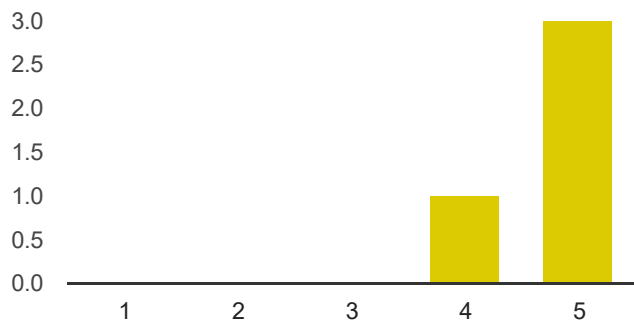
Not in agreement:	1	0	0%
	2	0	0%
	3	0	0%
	4	1	25%
In agreement:	5	3	75%

The assignments were useful.



4 1 25%  
 In agreement: 5 3 75%

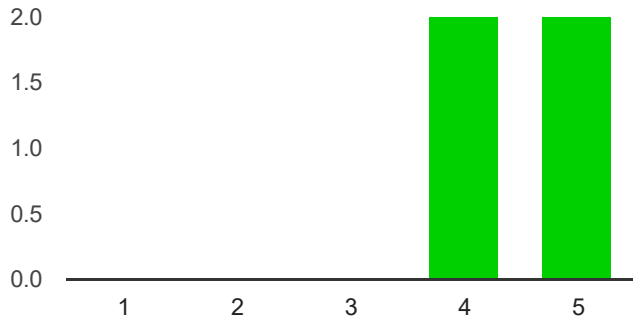
**The level of the assignments was appropriate.**



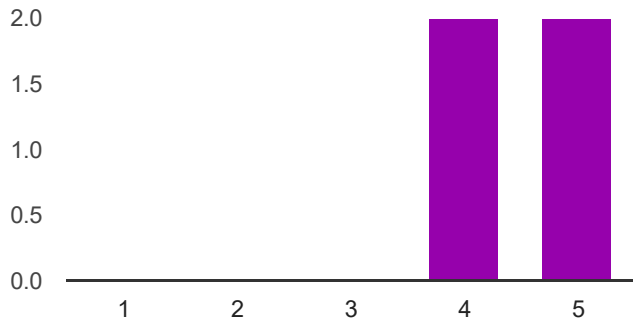
Not in agreement: 1 0 0%  
 2 0 0%  
 3 0 0%  
 4 1 25%  
 In agreement: 5 3 75%

**Examination**

**The form of examination chosen in this module was suitable.**

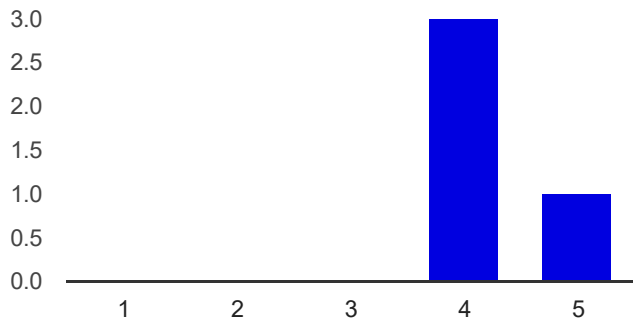


**The available time for the examination was enough.**



Not in agreement:	1	0	0%
	2	0	0%
	3	0	0%
	4	2	50%
In agreement:	5	2	50%

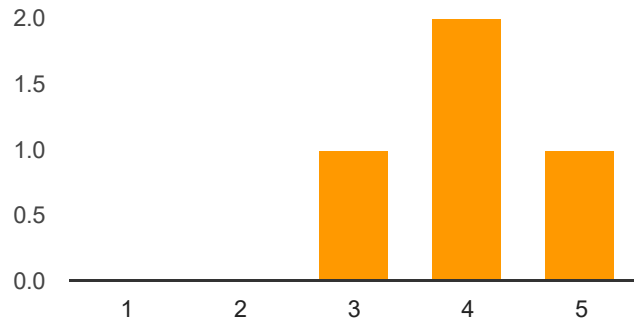
**I knew on beforehand what the method of examination would be**



Not in agreement:	1	0	0%
	2	0	0%
	3	0	0%
	4	3	75%

In agreement: 5 **1** 25%

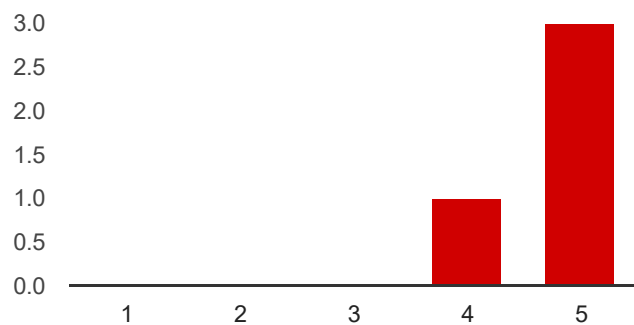
### I had enough time to prepare for the examination



Not in agreement: 1 **0** 0%  
 2 **0** 0%  
 3 **1** 25%  
 4 **2** 50%  
 In agreement: 5 **1** 25%

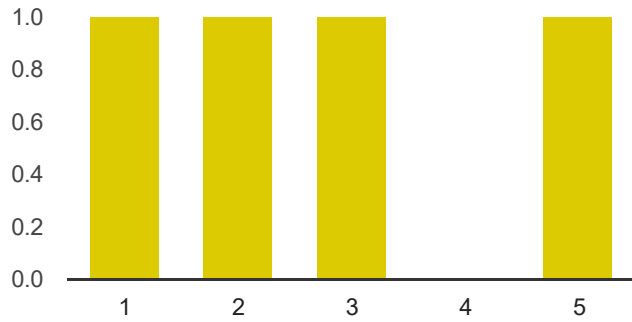
### Custom questions

#### The Smart Tech guest lectures added value to the understanding of the course



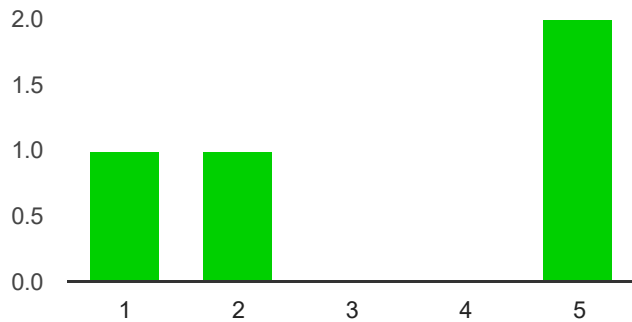
Not in agreement: 1 **0** 0%  
 2 **0** 0%  
 3 **0** 0%  
 4 **1** 25%  
 In agreement: 5 **3** 75%

**The Smart Tech assignment (wearable) should be made into a guided and graded lab session**



Not in agreement: 1    **1**    25%  
                           2    **1**    25%  
                           3    **1**    25%  
                           4    **0**    0%  
 In agreement: 5    **1**    25%

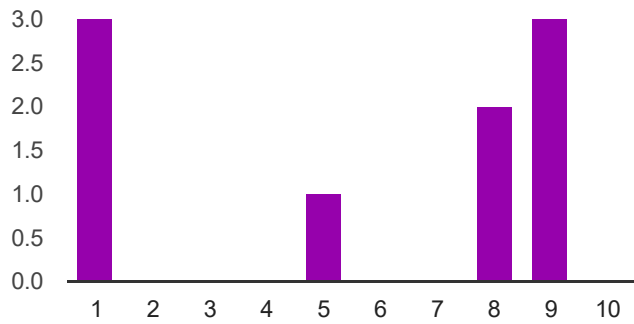
**The Smart Tech assignment should be connected to the Hybrid Worlds project**



Not in agreement: 1    **1**    25%  
                           2    **1**    25%  
                           3    **0**    0%  
                           4    **0**    0%  
 In agreement: 5    **2**    50%

**Final judgement**

**In summary, I give this part of the module the following grade.**

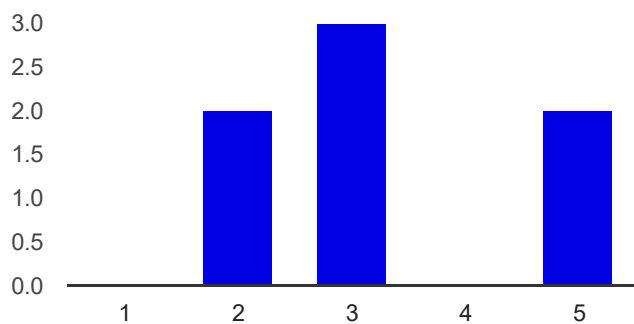


1	<b>3</b>	33.3%
2	<b>0</b>	0%
3	<b>0</b>	0%
4	<b>0</b>	0%
5	<b>1</b>	11.1%
6	<b>0</b>	0%
7	<b>0</b>	0%
8	<b>2</b>	22.2%
9	<b>3</b>	33.3%
10	<b>0</b>	0%

## Interactive Visualisation

### Good teaching, Learning

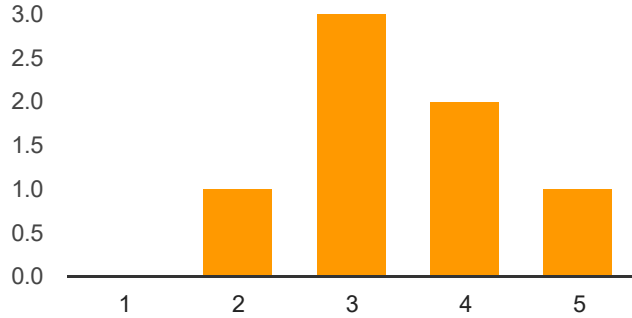
The teaching staff of this part of the module motivated me to do my best work.



Not in agreement: 1	<b>0</b>	0%
2	<b>2</b>	28.6%
3	<b>3</b>	42.9%

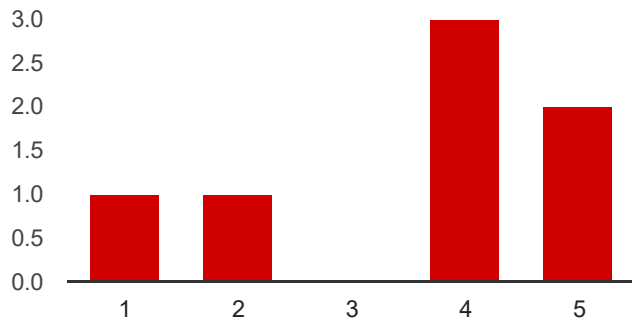
4 **0** 0%  
 In agreement: 5 **2** 28.6%

**The teaching staff of this part of the module normally gave me helpful feedback on how I was going.**



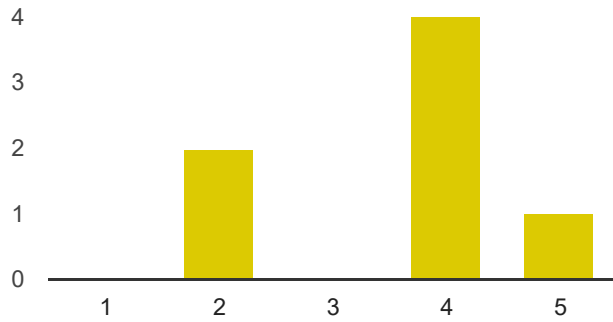
Not in agreement: 1 **0** 0%  
 2 **1** 14.3%  
 3 **3** 42.9%  
 4 **2** 28.6%  
 In agreement: 5 **1** 14.3%

**During this part of the module I knew what was expected of me.**



Not in agreement: 1 **1** 14.3%  
 2 **1** 14.3%  
 3 **0** 0%  
 4 **3** 42.9%  
 In agreement: 5 **2** 28.6%

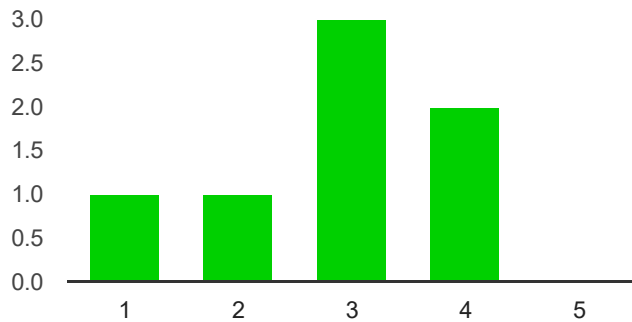
**The teaching and learning in this part of the module had a good fit with how I learn.**



Not in agreement:	1	0	0%
	2	2	28.6%
	3	0	0%
	4	4	57.1%
In agreement:	5	1	14.3%

## Organization, Study load

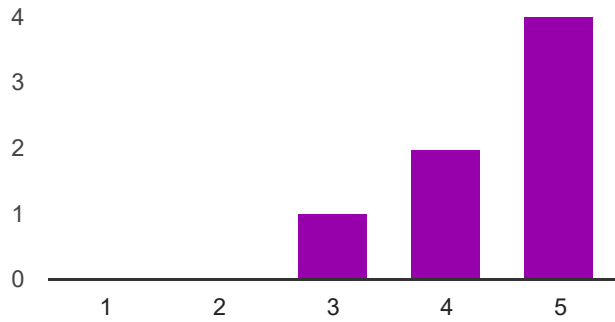
**This part of the module was well organized.**



Not in agreement:	1	1	14.3%
	2	1	14.3%
	3	3	42.9%
	4	2	28.6%
In agreement:	5	0	0%

**For this part of the module, the amount of study time I had to put in was doable.**

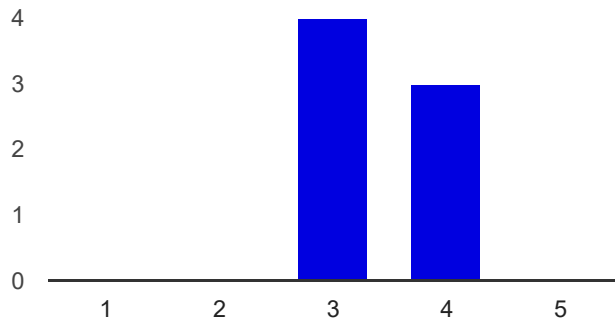




	3	1	14.3%
	4	2	28.6%
In agreement:	5	4	57.1%

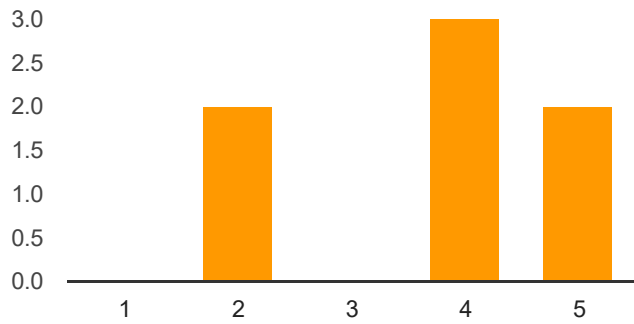
## Study material, Assignments

The study material had a good fit with the subject of this part of the module.

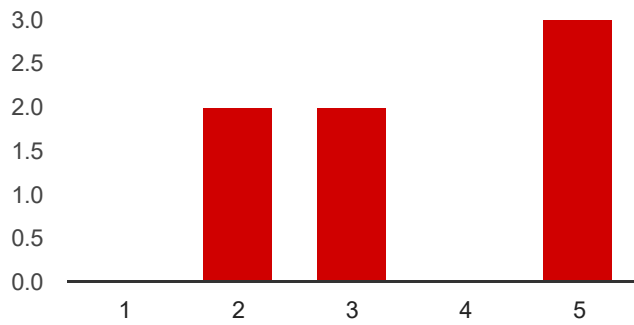


Not in agreement:	1	0	0%
	2	0	0%
	3	4	57.1%
	4	3	42.9%
In agreement:	5	0	0%

The assignments were useful.



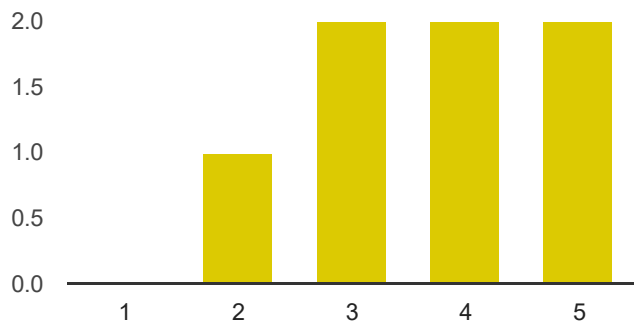
**The level of the assignments was appropriate.**



Not in agreement:	1	<b>0</b>	0%
	2	<b>2</b>	28.6%
	3	<b>2</b>	28.6%
	4	<b>0</b>	0%
In agreement:	5	<b>3</b>	42.9%

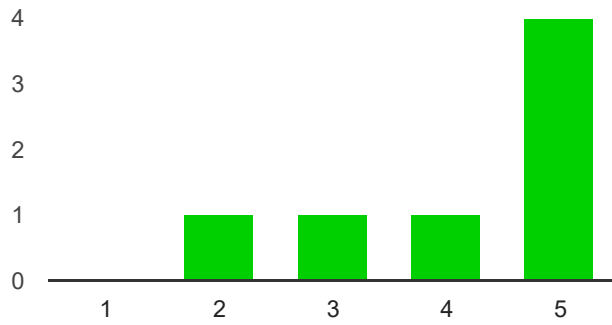
## Examination

**The form of examination chosen in this module was suitable.**



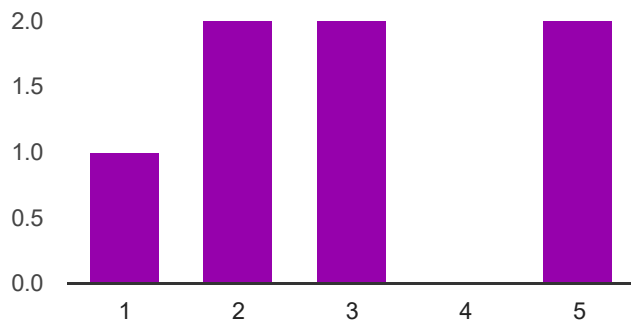
Not in agreement:	1	<b>0</b>	0%
	2	<b>1</b>	14.3%
	3	<b>2</b>	28.6%
	4	<b>2</b>	28.6%
In agreement:	5	<b>2</b>	28.6%

**The available time for the examination was enough.**



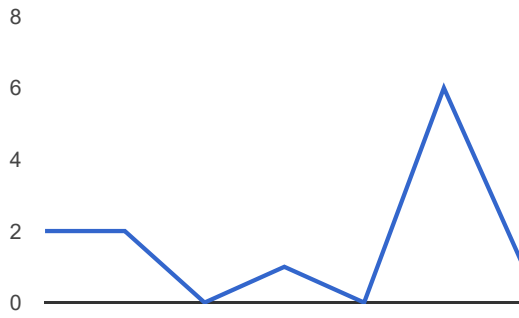
Not in agreement:	1	<b>0</b>	0%
	2	<b>1</b>	14.3%
	3	<b>1</b>	14.3%
	4	<b>1</b>	14.3%
In agreement:	5	<b>4</b>	57.1%

**I knew on beforehand what the method of examination would be**



Not in agreement:	1	<b>1</b>	14.3%
	2	<b>2</b>	28.6%
	3	<b>2</b>	28.6%
	4	<b>0</b>	0%
In agreement:	5	<b>2</b>	28.6%

# Number of daily responses



B-CREA  
 201400436; Data:From the Source to the Senses (DSS)  
 No. of responses =11; Response rate=21.2 %

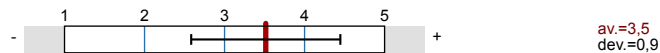
UNIVERSITEIT TWENTE.

Overall indicators

ALGEMEEN (Scale width: 5)



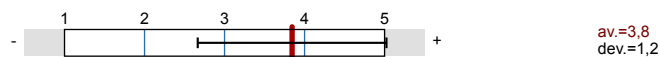
MODULE (Scale width: 5)



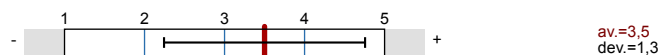
LEREN (Scale width: 5)



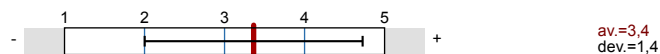
PROJECT (Scale width: 5)



TOETSING (Scale width: 5)



INZET VOOR STUDEREN (Scale width: 5)



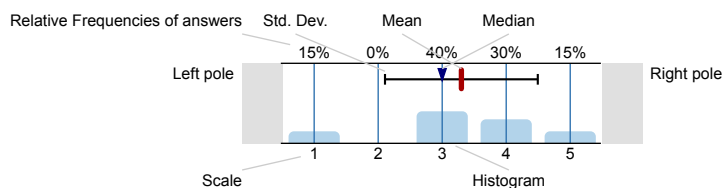
WAARDERING (Scale width: 5)



Survey Results

Legend

Question text



n=No. of responses  
 av.=Mean  
 md=Median  
 dev.=Std. Dev.  
 ab.=Abstention



Description of quality symbol

Mean value is below the quality guideline.

Mean is within the range of tolerance for the quality guideline.

Mean value is within the quality guideline.

1. GENERAL

1.1) I am a student in ...

Create  100% n=11

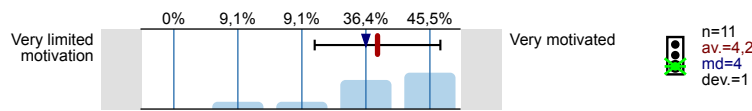
1.2) Based on my start date in this programme I am now a ... year student

1st year student  0% n=11  
 2nd year student  100%  
 3rd year student  0%  
 4th year student  0%  
 5th and higher year student  0%

1.3) I could have studied the full number of hours. Consider for instance: medical limitations, top sport arrangements.

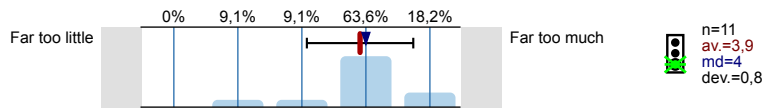
Yes  90.9% n=11  
 No  9.1%

1.4) I am a motivated student.

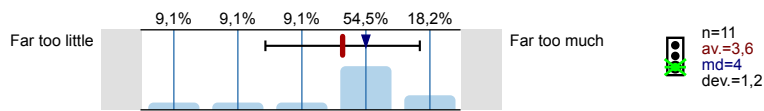


2. MODULE

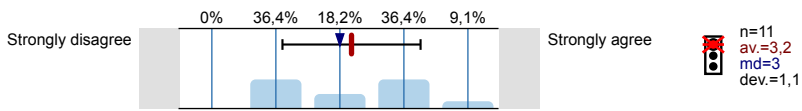
2.1) As a whole, I found the module challenging.



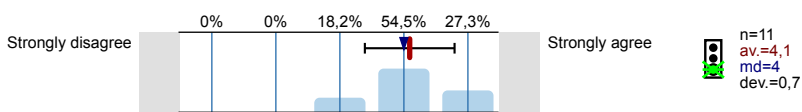
2.2) In general, I had enough prior knowledge to successfully do the module.



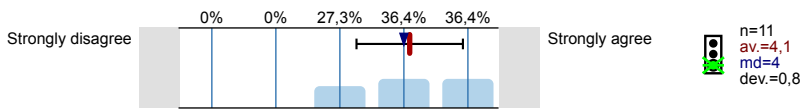
2.3) During the module I continuously knew what was expected of me. Consider for instance: participating in lectures and tutorials, active and collaborative role in project, self-study.



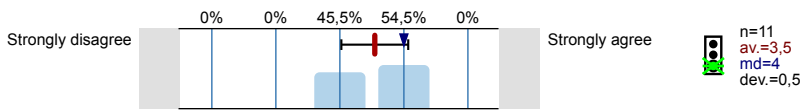
2.4) As a whole, I learned a lot in the module.



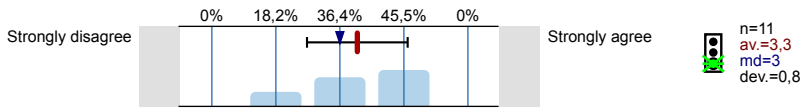
2.5) The module was logically put together. Consider for instance: parts of the module were connected well, good sequence of module part, learning pathways (in Dutch: leerlijnen).



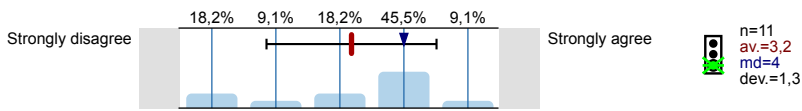
2.6) The content of the module fulfils my expectations well. Consider the objectives of the module.



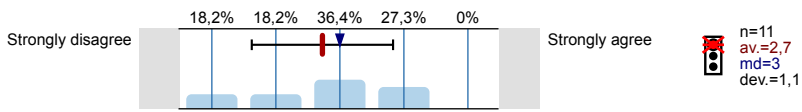
2.7) The module was well organised. Consider for instance: clear assignments, clear rules for assessment.



2.8) I was satisfied with the time-table. Consider changes and timely information.

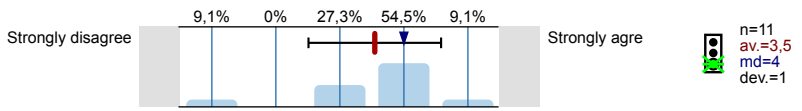


2.9) The digital learning environment, including information provision, was good. Consider: Blackboard, Orisis, web site(s).

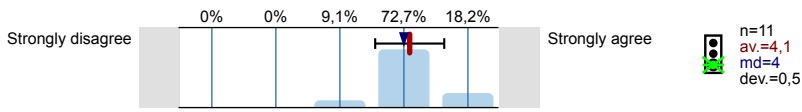


3. LEARNING

3.1) I have learned a lot thanks to the teachers, tutors, teaching assistants, etc.

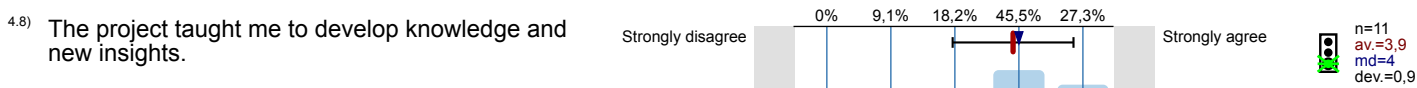
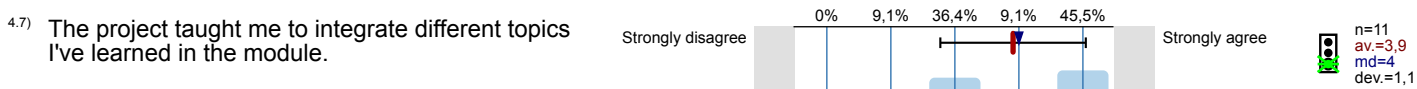
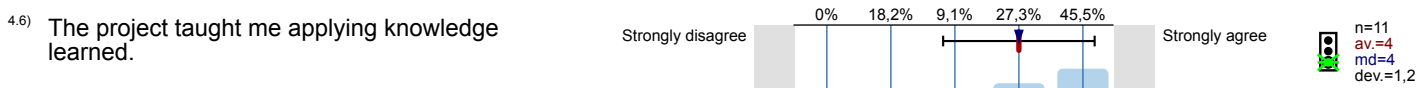
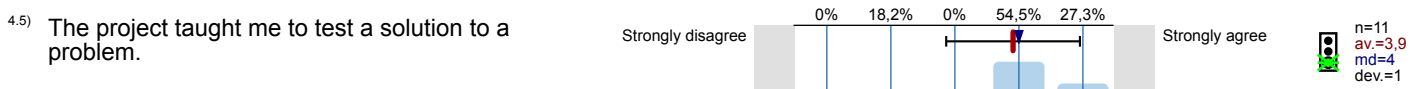
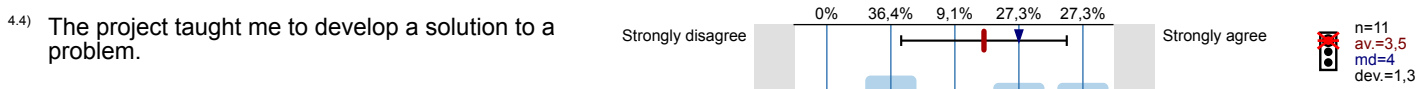
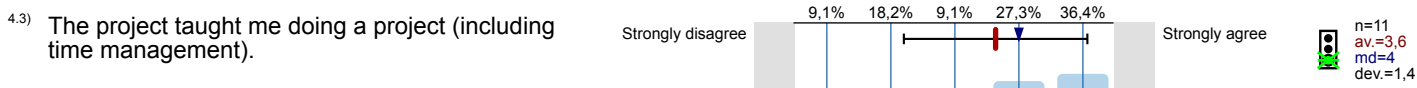
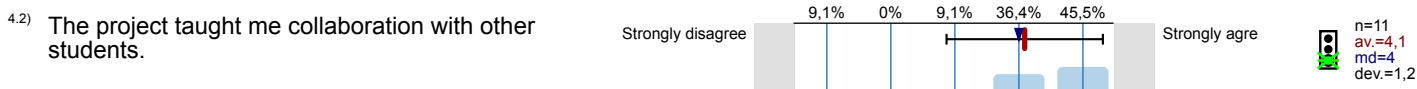
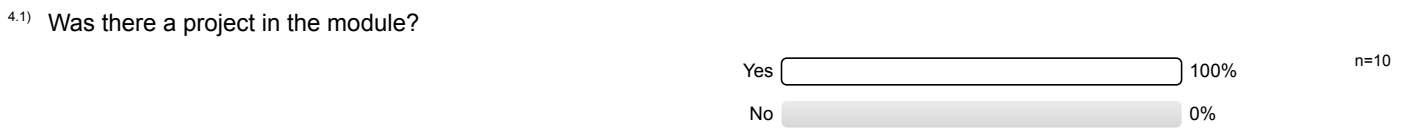


3.2) The study material had a good fit with the subject. Consider for instance: books, lecture notes, guidelines, articles.

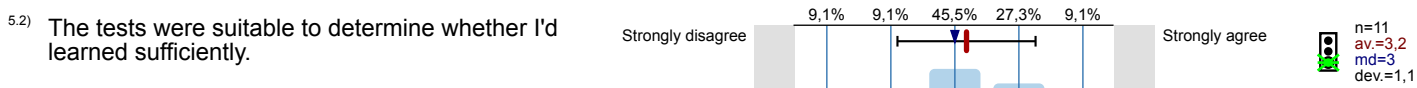
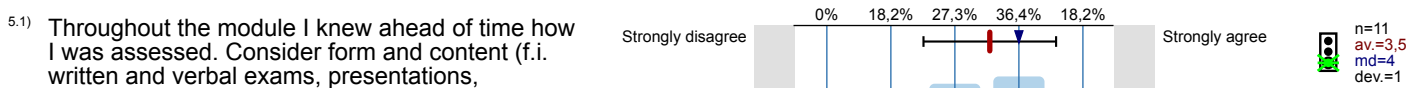




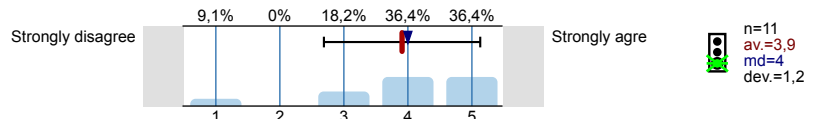
**4. PROJECT**



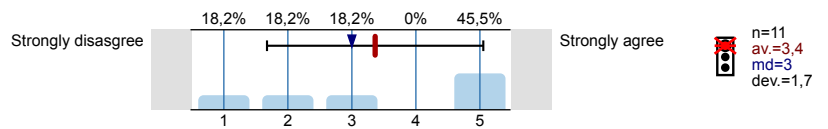
**5. ASSESSMENT**



5.3) The assessment (including possible intermediate assessments) have stimulated me to learn.

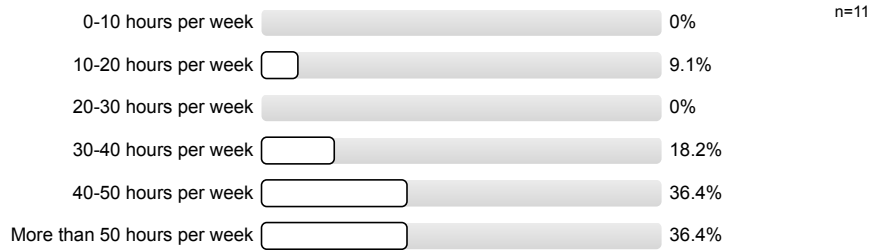


5.4) Throughout the module I had enough time to prepare for each assessment.

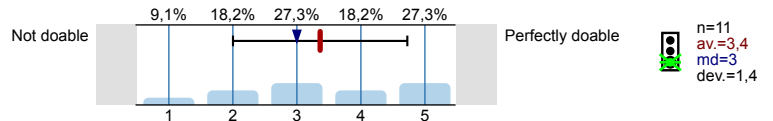


## 6. EFFORT TO PUT INTO STUDY

6.1) On average, during the entire module, I studied per week: This is about all types of teaching and learning, so: lectures and tutorials, self-study, assignments, project, etc.

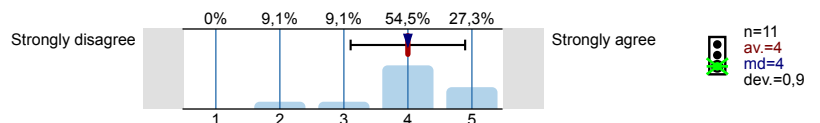


6.2) In general, the amount of study time I had to put in was doable. Consider the entire module and possible fluctuations of workload in it.

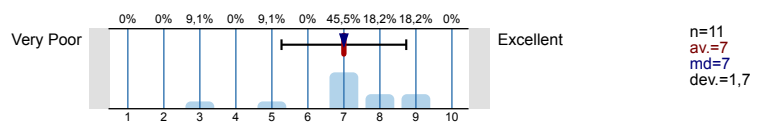


## 7. APPRECIATION

7.1) Based on the module, I would recommend this UT study programme to others.



7.2) In summary, I give the module the following grade. 1 very poor, 10 excellent





# Profile

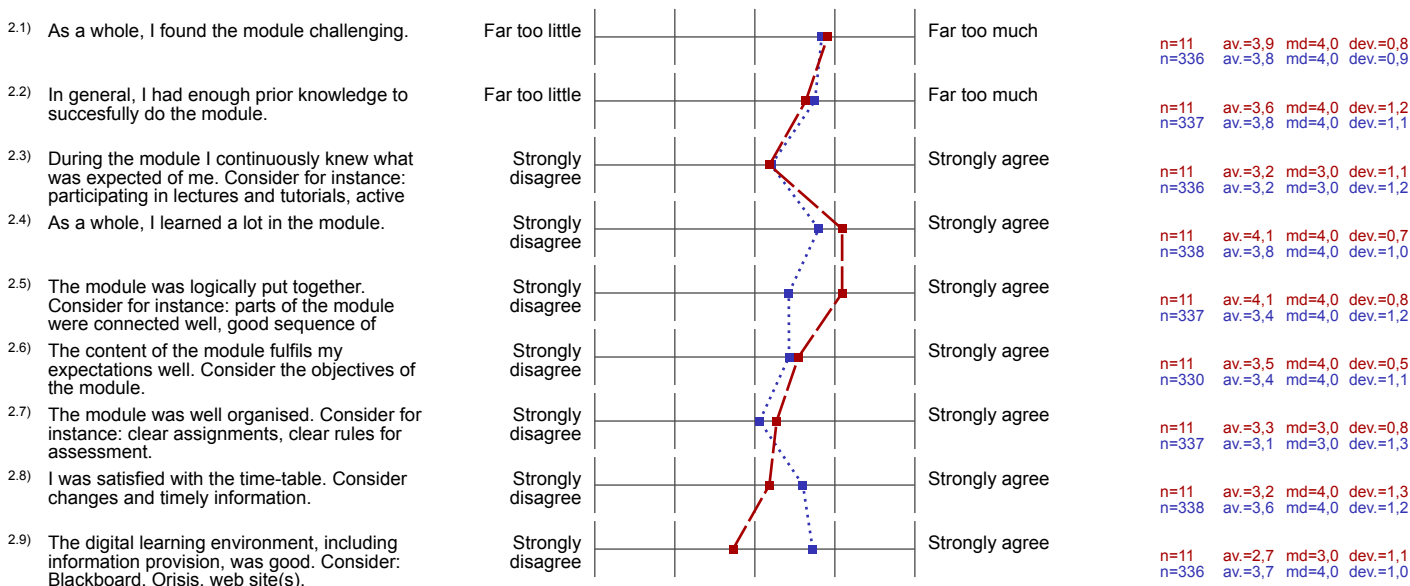
Subunit: TOM  
 Name of the instructor: B-CREA  
 Name of the course: Data:From the Source to the Senses (DSS)  
 (Name of the survey)  
 Comparative line: UT B2-modules 2014-2B

Values used in the profile line: Mean

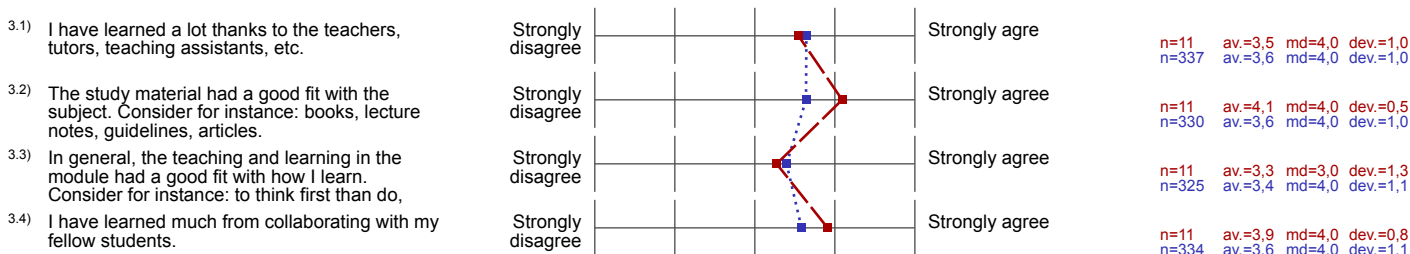
## 1. GENERAL



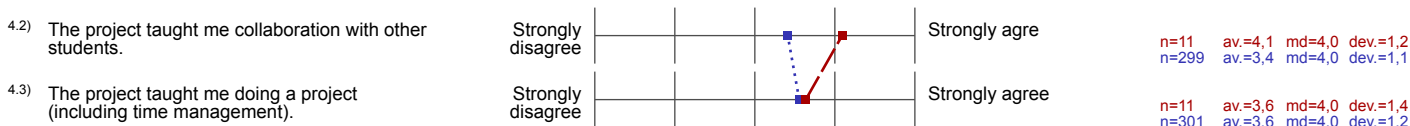
## 2. MODULE

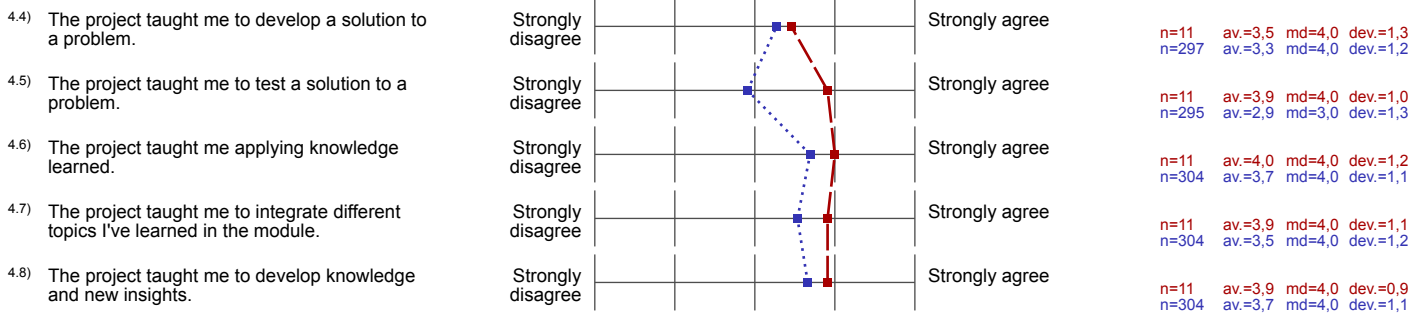


## 3. LEARNING

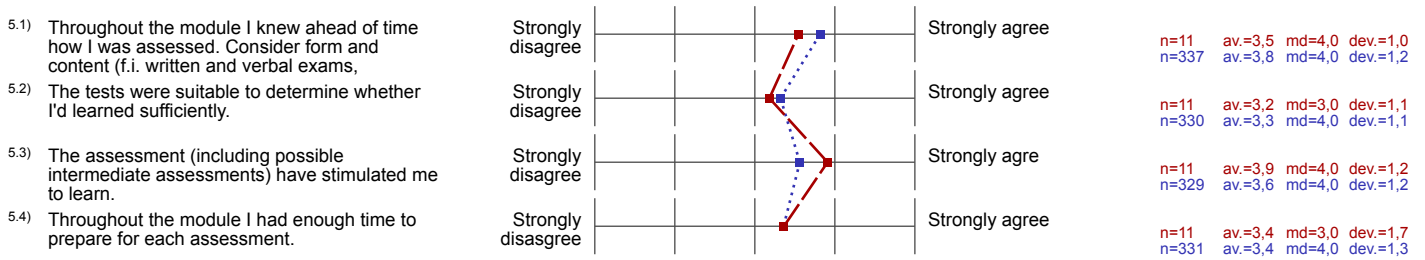


## 4. PROJECT

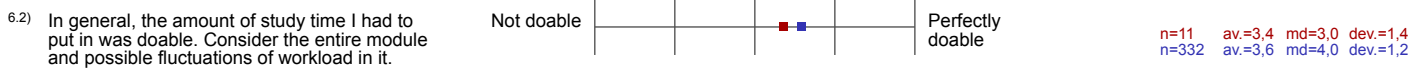




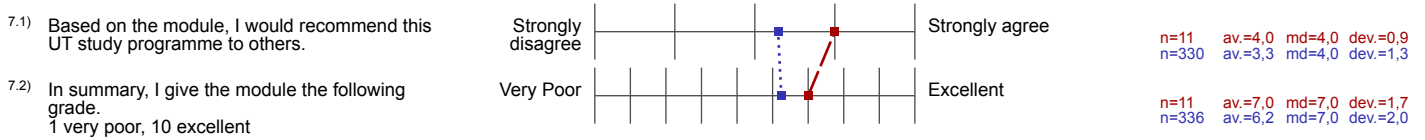
## 5. ASSESSMENT



## 6. EFFORT TO PUT INTO STUDY



## 7. APPRECIATION



## Comments Report

## 7. APPRECIATION

7.3) I found the following to be the strongest points of the module.

- - This is the first module that effectively makes use of the module structure: all courses are related to each other, you follow data from gaining it to displaying it.
  - There is a lot to learn from this module!
- -the good connection between the different subjects
  - different kinds of learning (group, individual, peer reviews)
- Alles sloot goed op elkaar aan, de docenten wisten waar ze het over hadden en als je vond dat iets niet helemaal goed geregeld was dan kon je dat aangeven en dan werd er iets mee gedaan, wat heel fijn was.
 

Ook hadden we 2 weken voor het bouwen van het project, wat heel prettig was omdat we nu echt konden maken wat we bedacht hadden en we in die weken ook niets anders hoefden in te leveren waardoor we ons volledig op het project konden focussen.

Ook vond ik de docent van Internet Technology (de man, niet de vrouw) erg goed, hij was erg enthousiast over alles en het was duidelijk dat hij goed begreep waar hij het over had.
- Biosignals and Medical Electronics was zeer interessant en leuk.
- De delen waren eindelijk een keertje goed geïntegreerd
- De laatste twee weken reserveren voor het project werkte erg fijn, maar het was alleen iets te kort voor een goed project.
- Goede organisatie. Interessante en goed gegeven vakken. Docenten waren erg open voor constructieve feedback, in schril contrast tot de vorige module. Concept van groot project is erg leerzaam.
- Het project is een heel sterk punt. Het leerd je eindelijk samen te werken met meer dan 5 man. De gemiddelde teamgrootte van 15 man/vrouw zorgde voor een verfrissende kijk op projectmanagement. Ook Internet Technology was erg goed als vak. De 'datadensity' van dit vak was wat ik zou verwachten van een universitaire opleiding. Het verdiepende deel van smart technology valt hier ook onder. In tegenstelling tot de meeste andere vakken binnen create.
- The different courses in the module worked well together and formed a bigger picture. Many courses were challenging enough to be interesting.
- redelijk goede integratie
  - gemotiveerde docenten
  - leuke vakken
  - groot project en goede ideeën over hoe bouwtijd te doen.

7.4) These are my suggestions for the improvement of the module.

- - Data Visualization takes an entire day, while all the information gained during such a day can be given in 2 hours. I would move all the lecturing to the morning and leave the afternoons free for working on homework.
  - If it is promised beforehand that you have two full weeks to work on the project, don't move (oral) tests and deadline to that week.
  - Full days of a single course are not very motivating, after a few hours on one course it is better to move on to something else.
  - We had to use three websites this module (Canvas, Peerwise, Blackboard). There was no consistency in what info was given where. I missed a central place to check what the deadlines are for this module and where I can find assignments and information. I would like to see it move back to last year's Blackboard structure (ALL assignments under the folder 'assignments', all info and readers under 'Course Information', and all the grades under the 'Grades' section). Blackboard has a lot of potential if it is used correctly!
- -plan less content or more time for Internet Technology
  - have competent study assistants that know the assignments
  - structure the interactive visualization course better
  - give more feedback in the project regarding managing a big group etc. and also about the progress
- DDA opdrachten waren vaak onduidelijk en bevatten veel fouten. Datasets hiervoor werden meerdere keren rondgestuurd in verschillende, steeds foutlozer wordende, versies.

De datavisualisatie dag was veel te lang. In combinatie met een erg veel en lang pratende (maar verder erg goede!) docent, was het moeilijk om hier de hele dag de concentratie erbij te houden.

De nieuwe locaties die gebruikt werden tijdens deze module waren niet ideaal. 'The Classroom of the future' is geen prettige ruimte om te werken. De kleine hokjes die daar door middel van scheidingswanden gebouwd kunnen worden bevorderen de productiviteit niet, zeker aangezien er geen tafels zijn om aan te werken. Doordat veel mensen niet werken maar ontspannen, wordt het ook erg rumoerig. De schermen in dit lokaal voelen vooral als een gimmick aan, maar waren wel leuk om mee te werken. Toch had een gewoon scherm - zonder draadloze functies - ook prima gewerkt, en was minder storingsgevoelig geweest.

Het project werd in het Designlab gegeven. Hier was vooral de regelgeving een beperkende factor. Workshops (waarvan veel gebruik gemaakt moest worden) waren alleen toegankelijk met RFID-kaarten. Hiervan was er maar één per projectgroep. Resultaat hiervan was dat, wanneer men even uit de workshop moest om bijvoorbeeld iets te pakken, je óf het groepslid dat de kaart momenteel had

moest storen om de kaart voor twintig seconden te lenen, óf bij terugkomst een minuut op de ramen van de workshop moest kloppen. Ook was het bijvoorbeeld niet toegestaan om stekkers te gebruiken bij de lange tafel in het midden van het Designlab, ondanks dat dit soms de enige beschikbare plek was.

- Data Visualization is me niet goed bevallen. De Classroom of the Futur is naar mijn mening geldverspilling. Zo gaat de toekomst er niet uit zien.
- De werkdruk is veeel te zwaar. Iedere week de hele dag college en daarnaast nog leren, opdrachten maken en project doen. Daar is gewoon geen tijd voor. Verdeel de werkdruk beter.
- Het inroosteren van een volledige dag voor datavisualisatie is een heel slecht idee. Ik kreeg het idee dat ik minder productief was omdat na vier uur het zelfde te doen in een veel te onrustige omgeving niet toe zet tot optimaal gebruik van mijn tijd. Ook wordt je constant onderbroken door de docent die even 3 dingen wil zeggen en daar 15 minuten over doet. Op gegeven moment ben ik gewoon maar halve dagen er heen gegaan, om vervolgens ergens anders te werken. De "classroom of the future" is een misbaksel van slechte ideeën. Als wireless technologie nu echt zo ver was geweest ala, maar een ruimte vol proppen met schermen die niemand wil gebruiken en maar wat schotten en zitzakken neerzetten is niet echt genoeg voor mij. Het is een niet heel inspirerende omgeving om data te verwerken en visualisaties te maken, geef mij daarvoor maar het design lab dat er op kruipafstand vandaan zit.

Data Driven Applications was slecht gegeven, weinig uitleg en inhoud bij colleges. De opdrachten zijn qua niveau erg hoog voor de hoeveelheid uitleg die bij de colleges zijn gegeven. Het tentamen daar in tegen is dan weer lachwekkend makkelijk.

- Misschien wat leerstof van Internet Technology schrappen, het is wel erg veel stof voor de tijd die we ervoor hebben, en zelfs de docenten hadden niet genoeg tijd om alles in de lectures te bespreken waardoor ze soms door moesten gaan in de pauze of tijdens het werkcollege. Dat vond ik niet prettig, een mens kan maar een bepaalde hoeveelheid informatie per dag opnemen en dit werd gewoon te veel.

Ook vind ik dat er bij Data Driven Applications niet genoeg rekening is gehouden met mensen die nog nooit geprogrammeerd hebben, er werd van ons verwacht dat wij SQL en PHP konden programmeren, terwijl ik nog nooit van die talen gehoord had. Dit is in een survey aangegeven aan het begin van het vak maar daarna is er weinig mee gedaan vond ik. Hierdoor had ik vaak het gevoel dat ik dom was en voelde me schuldig omdat ik het allemaal nog niet wist, terwijl natuurlijk nooit was aangegeven dat we die talen hadden moeten leren voor we de module begonnen.

- Stop met het gebruiken van al die nieuwe leeromgevingen (canvas, peerwise). Dit maakte het soms nogal onduidelijk
- The organization between courses and professors wasn't very great, some weeks assignments were to many, other weeks there were too few assignments. Since teachers didn't know the work load of the other courses, many too easily gave in to the complaints of several students, further lowering the workload and dropping otherwise useful assignments and lectures. The peer review assignment in the data visualization and data driven application course wasn't very well thought out. Because of this grades highly varied depending on the reviewing student. Correct answers were often graded as incorrect and vice versa.
- meer vrij werk tijd om daadwerkelijk dingen te kunnen doen. Dus hele middagen vrij waar niet in ene toch een guest lecture komt oid.  
MINDER DEADLINES  
minder deadliens op verschillende plekken  
minder peer review wat eigenlijk gewoon nakijken is  
minder data visualisatie in project, killed de meeste leuke ideeën  
kleinere project groepen of meer guidance on hoe er mee om te gaan. (aan iedereen)  
beter na denken over hoe alles in een module past. Als iedereen (docenten) meer of net meer tijd per week gebruikt dan past komt elk vak in de knoop.