

# An evaluation of student perceptions of the effectiveness of multidisciplinary teaching and learning eHealth

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# INTRODUCTION

# Introduction

## eHealth Eurocampus Project



EU-Funded Erasmus+ Strategic  
Partnership for Higher Education

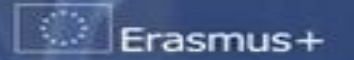
Objectives:

- To determine the requirements for future eHealth education
- To produce eHealth learning materials that can be used to prepare students for professional life in an eHealth work environment.



# Introduction

## Justification

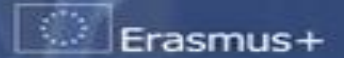


eHealth as an emerging academic discipline



# Introduction

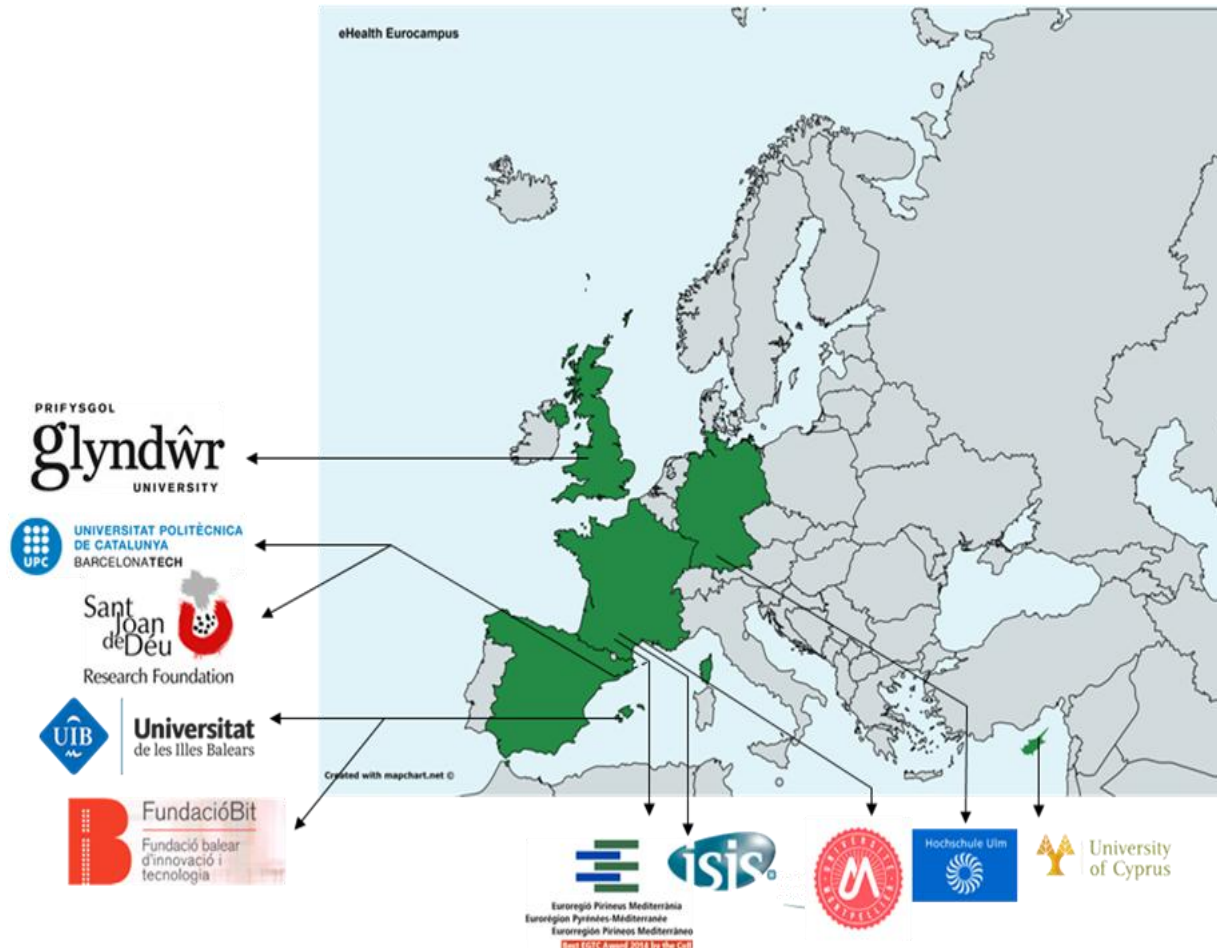
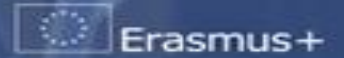
## Aim of the Project



To help create the eHealth professionals of the future, by empowering them with the knowledge and skills to support a society that will need high-quality, reliable and credible technologies.



# Introduction Consortium



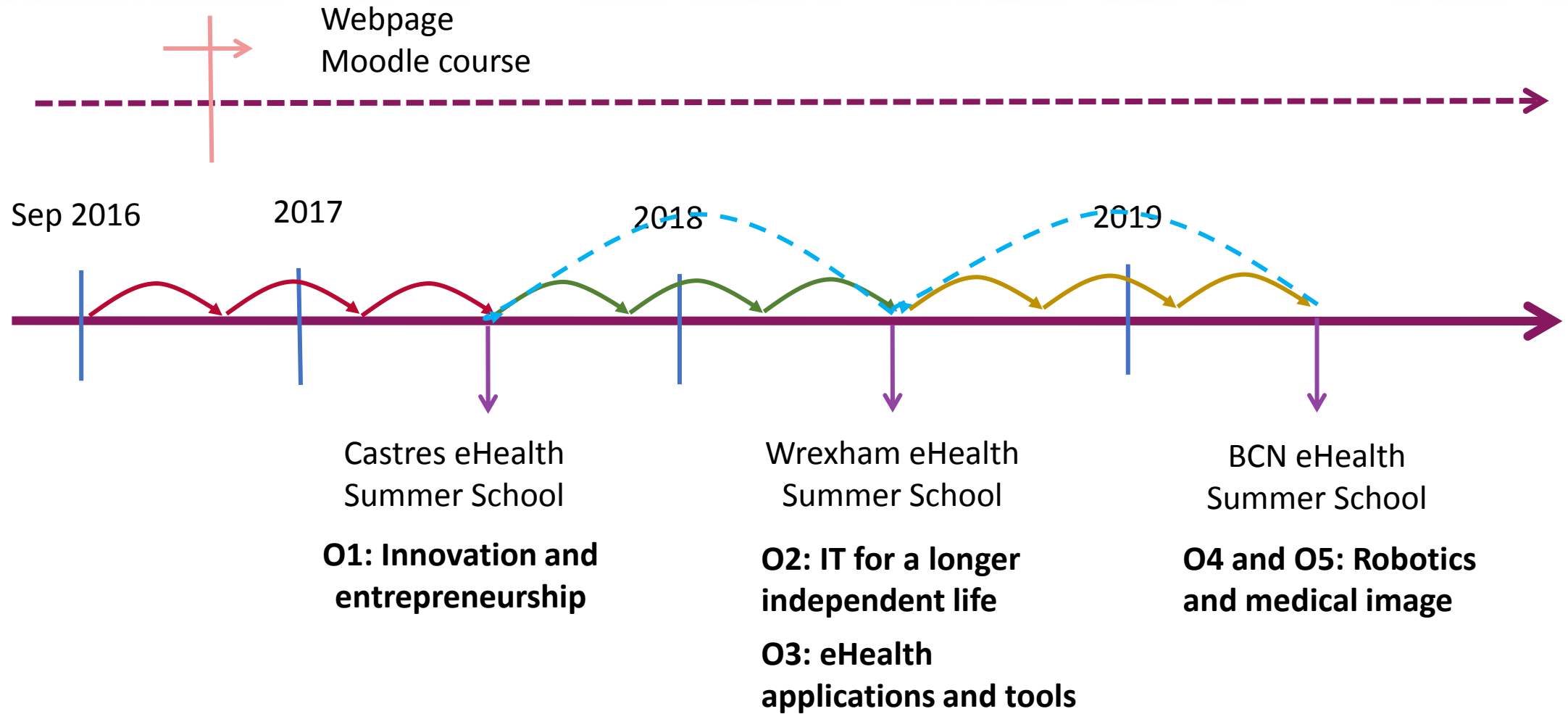
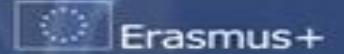
8 higher education institutions

1 regional centre of technological development and entrepreneurship promotion

1 European Grouping of Territorial Cooperation

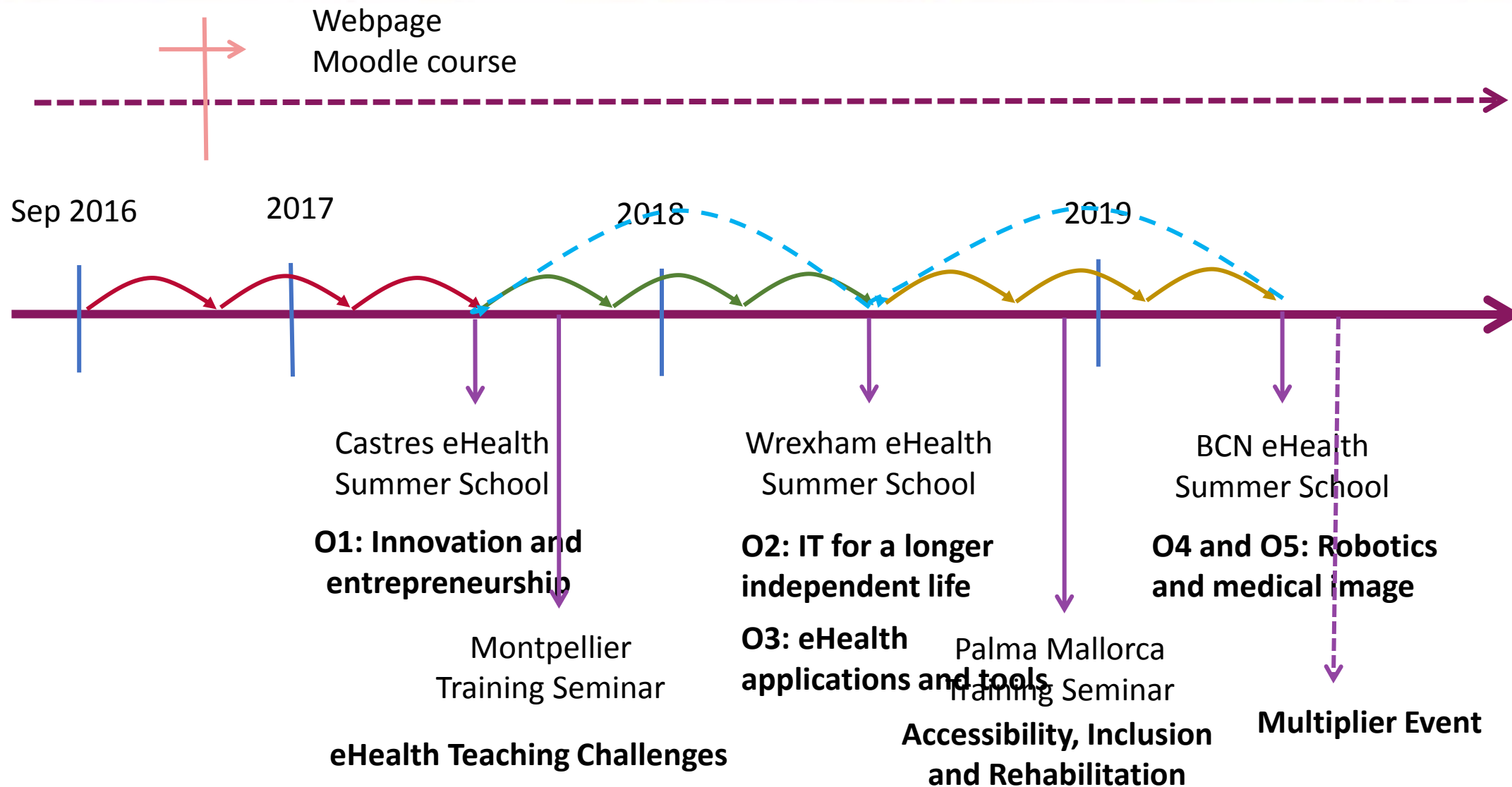
# Introduction

## Method and materials



# Introduction

## Method and materials







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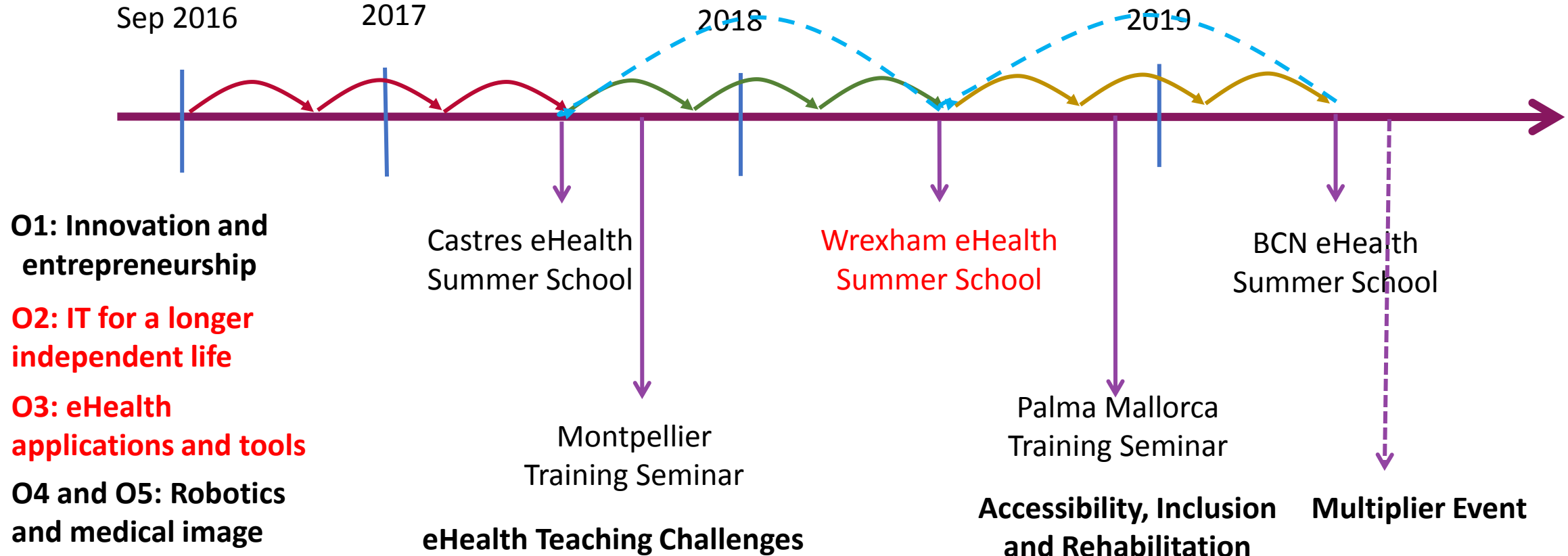


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# OBJECTIVE

# Objective

To evaluate the student perceptions of the effectiveness of multidisciplinary teaching and learning eHealth.





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# METHODOLOGY

# Methodology

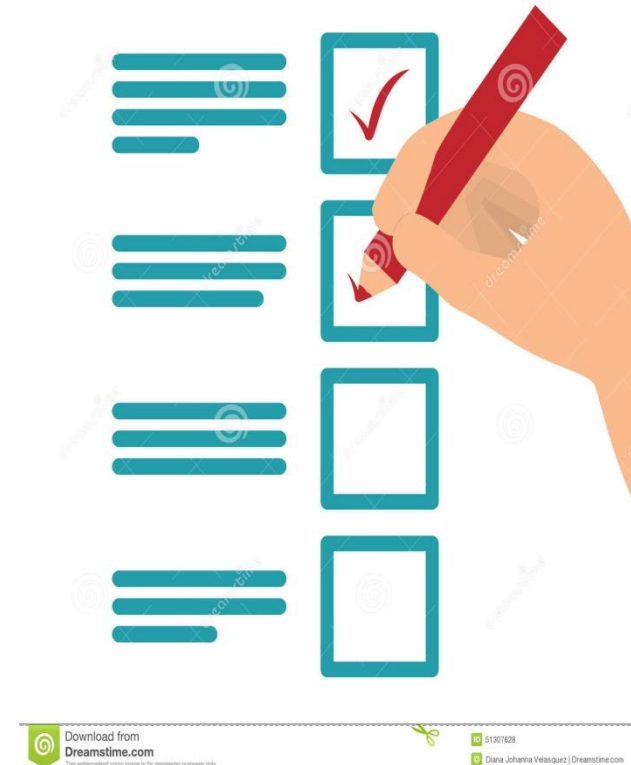
## Design and tool

### Design

Descriptive and quantitative

### Tool

- Questions:
  - 23 closed questions
  - 1 open question
- Categories:
  - Efficacy of the teaching sessions
  - Teaching methodology
  - Usefulness of VLE platform (moodle)
  - Effectiveness of the teamwork method.
  - Satisfaction according expectations





1. *The theoretical sessions were fruitful/useful*
2. *Teaching content*
  - 2.1 ... *was appropriate and sufficient*
  - 2.2 ... *was useful for the project development*
  - 2.3 ... *increased my previous knowledge*
  - 2.4 ... *will be useful in my future professional development*
3. *Teaching methodologies (lectures, lab sessions, exercises, theatre simulation)*
  - 3.1 ... *were appropriate*
  - 3.2 ... *promoted motivation*
  - 3.3 ... *helped content comprehension*
  - 3.4 ... *teachers showed motivation and promoted students' participation*
  - 3.5 ... *promotes critical reflection / thinking*
4. *VLE (Moodle)*
  - 4.1 ... *it has been a useful tool*
  - 4.2 ... *materials were available in the correct time*
  - 4.3 ... *has been easy to use*
5. *Teamwork and project development*
  - 5.1 ... *the teamwork was satisfactory*
  - 5.2 ... *we achieved a respectful atmosphere*
  - 5.3 ... *the communication with team members was appropriate*
  - 5.4 ... *we achieved the expected outcome*
  - 5.5 ... *all members were active and participative*
  - 5.6 ... *my own involvement in the project was correct (regarding my subject expertise)*
6. *According to my expectations, I'm very satisfied with the eHealth Summer School*



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# RESULTS

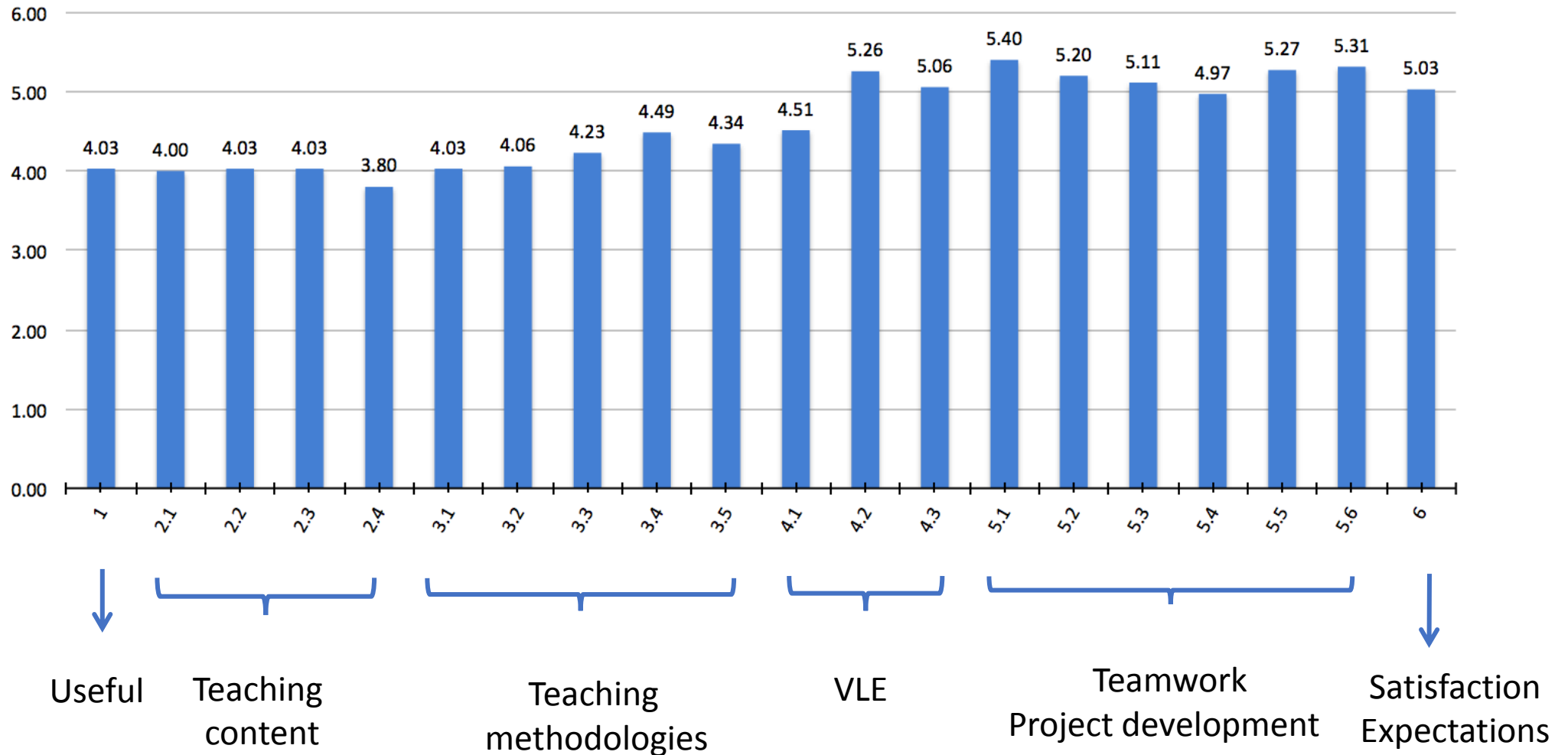
# Results

## Quantitative data

Question	Fully disagree 1	Disagree 2	Partially disagree 3	Partially agree 4	Agree 5	Fully agree 6	N	$\mu$	$\sigma$
1	3	3	4	10	11	4	34	4.03	1.45
2.1	1	5	9	6	6	8	35	4.00	1.5
2.2	1	6	8	3	10	7	35	4.03	1.52
2.3	2	4	6	10	5	8	35	4.03	1.50
2.4	2	7	6	8	5	7	35	3.80	1.57
3.1	2	3	8	8	7	7	35	4.03	1.46
3.2	1	4	6	11	7	6	35	4.06	1.35
3.3	1	2	8	10	5	9	35	4.23	1.37
3.4	2	2	4	6	11	10	35	4.49	1.46
3.5	1	2	8	7	7	10	35	4.34	1.41
4.1	0	4	7	4	7	13	35	4.51	1.46
4.2	0	0	5	2	7	21	35	5.26	1.09
4.3	1	0	5	1	11	17	35	5.06	1.26
5.1	0	0	2	4	10	17	33	5.40	0.91
5.2	0	1	4	0	5	25	35	5.20	1.14
5.3	0	1	4	3	6	21	35	5.11	1.18
5.4	0	1	4	3	9	18	35	4.97	1.16
5.5	0	2	4	6	4	19	35	5.27	1.32
5.6	0	0	0	3	18	14	35	5.31	0.63
6	0	0	3	7	11	14	35	5.03	0.98

# Results

## Quantitative data





# Results

## Qualitative data

- a) *Android class was really hard but all the other classes we're perfect*
- b) *Thank you for everything ! That was a great and useful experience !!!*
- c) *I like the Atmosphere with teachers and students. Especially our location (Student Village) was a good idea because this was the main point where we get to know each other.*
- d) *I feel that the experience was unique and very positive. I really enjoyed meeting new people and sharing different perspectives.*
- e) *I have enjoyed very much the experience because I have been able to improve my knowledge and have fun and meet new people.*
- f) *It would have been great start the projects with our teams the first day to have more time to work.*
- g) *Projects should have been started earlier, with less theoretical courses.*
- h) *Project should have been started earlier.... but it was great!*
- i) *Good: Atmosphere Worse: actor interaction, if possible real patients would have been more interesting<sup>1</sup>*
- j) *The first week we did a lot of theoretical lessons and they were a little bit boring*
- k) *I'm going to give some examples: The IT students had 2 days of Android Studio but ended developing the prototype in Marvelapp due to the lack of knowledge and the difficult to implement what we thought, so I think it would be better to see different types of apps like we saw in the lecture of (name redacted) or other examples of smartphone apps. Moreover, lectures that weren't practical were a little tiring, a lot of theory and little amount of examples. In the project I think we should have a little more of help from the teachers.*
- l) *First week's classes felt a bit underdeveloped, as if they were thought to be made not for a summer school, but for a more extended period of time. Some of them were interesting as stand-alone lectures and were useful for the second week, but the majority didn't have any impact on our way to proceed with the project. Moreover, the project could have been a bit more guided. Those are my only complaints, and overall, the summer school was a great experience that I would live again without hesitating.*



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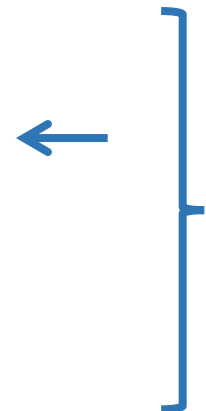
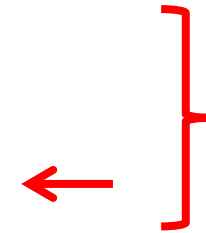


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# DISCUSSION

# Discussion

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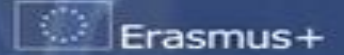


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# CONCLUSIONS

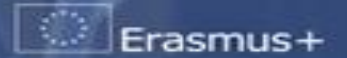


# Conclusions



- This is the first study to evaluate a course experience specifically designed for students of both healthcare and technology, with a view to creating hybrid eHealth professionals of the future.
- The results are very positive:
  - The model of course delivery is both feasible and of genuine utility.
  - Theoretical delivery is not popular (is it an exacerbation to struggle with complexities that are outside the areas of specialism?)
- We need research further and to test alternative models of delivery

# Acknowledgments



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**Members of Campus Docent Sant Joan de Déu**



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# THANK YOU

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