

OPTimizing AccoMpanying teachIng for Case based learning at
Erasmus MC (OPTAMICE)



Dik van Gent
Erasmus MC, Department of Molecular Genetics

New medical curriculum at Erasmus MC

Current curriculum:

- lectures (8 per week)
- small group sessions (6-8 hours per week)
- guided self study (~12 hours per week)



New curriculum:

- 2 Case Based Learning journeys per week
- Each journey contains a case (8 hours) and accompanying teaching (8 hours)



What is a case?

A case can be a patient case, or some other issue

Students first get a pitch by the case writer, then self study and at the end a 2-hour small group session (12-14 students per group)

Groups are guided by a tutor, who is not an expert on the case, but guides the group during a 6-8 week period

A case contains self study assignments, knowledge clips, literature and/or short practical assignments to prepare students for the live session

What is accompanying teaching?

Assignments that are more or less loosely connected to the case:

Small group teaching (12-60 students)

Guided self study assignments

Literature

Knowledge clips, youtube videos, etc.

The main question of the OPTAMICE study

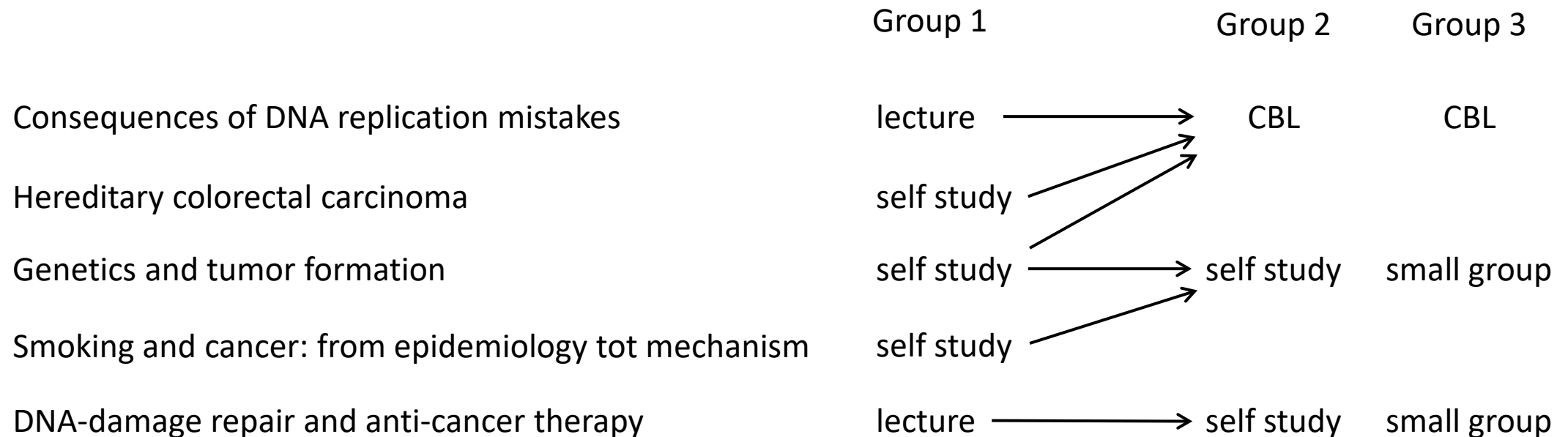
How should small group teaching and guided self study assignments in the accompanying teaching be designed?

Does live teaching still give added value when students also have a CBL session?

How do students perceive the study pressure and their preparedness for making tests?

How does this translate into solving problems at the tests?

Study design: three student groups



Students could opt out, which placed them automatically in group 1 teaching; results were not taken along in the study

What did the students think?

Question	Group 1	Group 2	Group 3
Teaching prepared me well for the questions in the test	3.32	3.08	3.80
The CBL teaching challenged me to dive into the subject		2.87	3.85
The accompanying teaching helped me to understand the subject better		3.26	3.96
The accompanying teaching challenged me to study and dive deeper into the subject		3.30	3.44
The CBL teacher had sufficient knowledge and skills to lead the session		2.78	3.56
Small group teaching had added value compared to self study assignments, even though unclarities could also be discussed in the CBL session		3.29	4.00

The main question of the OPTAMICE study

Does live teaching still give added value when students also have a CBL session?



Week 2 Teaching	Week 3 Test 1
--------------------	------------------

Week 7 Exam

Week 13 Test 2

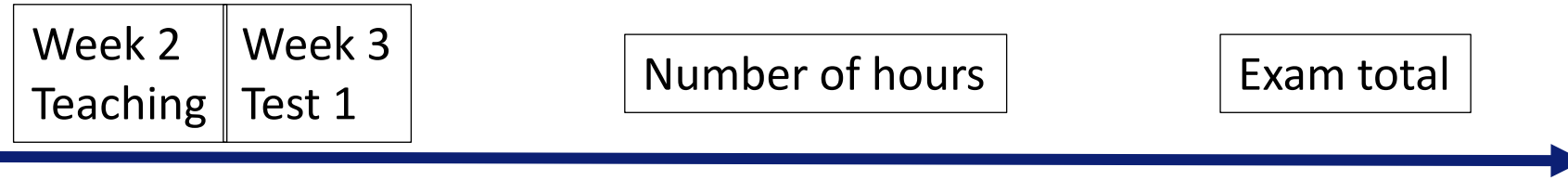


Classic	6.28	n=45	7.32	n=45	8.25	n=28
CBL + Self study	6.22	n=22	7.18	n=22	9.11	n=9
CBL + Live teaching	7.71	n=23	7.24	n=23	8.79	n=14

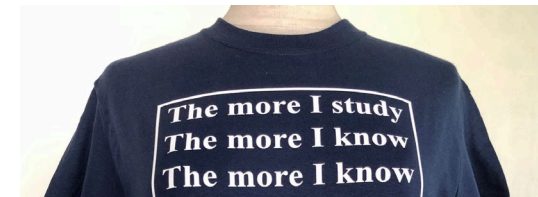
The main question of the OPTAMICE study

	Week 2 Teaching	Week 3 Test 1	Week 7 Exam	Week 13 Test 2
Classic		6.28	7.32	8.25
CBL + Self study		6.22	7.18	9.11
CBL + Live teaching		7.71	7.24	8.79
Relevant for live teaching				
Classic		5.47	4.57	3.68
CBL + Self study		5.43	4.31	3.99
CBL + Live teaching		7.21	4.68	3.79
		understanding	knowledge	understanding

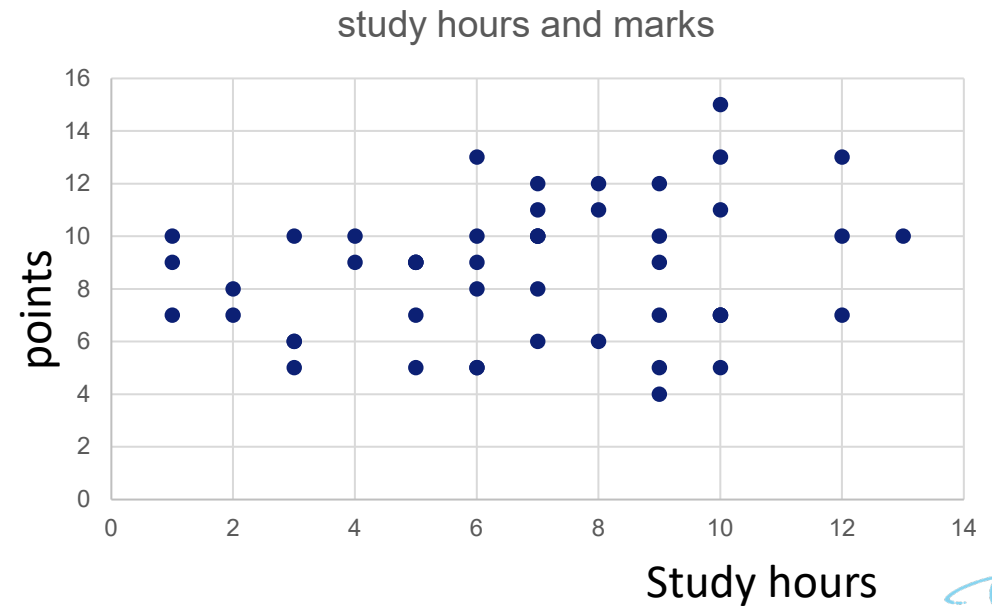
How much study time for each group?



	Week 2 Teaching	Week 3 Test 1	Number of hours	Exam total
Classic		6.28	5.3	7.33
CBL + Self study		6.22	5.9	7.14
CBL + Live teaching		7.71	8.6	7.20



Conclusion: more study time gives better marks...
 No big differences between the groups on total exam marks



Disclaimers

The group that answered extra tests was small (close to 100 for week 3, around 50 for week 13)

There may be selection for more motivated students

Exam was mainly knowledge

Our CBL teachers were not experienced and the students were not used to this form of teaching

The main question of the OPTAMICE study

How do students perceive the study pressure and their preparedness for making tests?

Students feel better prepared with small group teaching than with self study assignments

Some students feel unsure when they did not get a lecture

Large differences in number of study hours per student

Students either feel CBL is not efficient (costs too much time) or CBL is great because it is more activating.

Some conclusions

Guided (live) teaching is useful, especially for reaching higher levels of Bloom (although they also put in more study hours); this effect seems to be less obvious at the official exam and 6 weeks later

CBL activates students, but not all of them like it

CBL makes knowledge last longer



Acknowledgements:

Emely Spierenburg

Daan Schilperoord

Mathijs Doets

Jonas Verdonschot

Gijs Elshout

Andrea Woltman

Karen Stegers – Jager

Martine Jaegle

CBL teachers