iLed
Innovating Learning Design in Higher Education

Funded by the European Union

INNOVATING LEARNING DESIGN IN HIGHER EDUCATION - WP4

SUMMARY REPORT

ON UPGRADED LD & STUDENT EVALUATION OF LD IMPLEMENTATION

University of Oulu

GENERAL INFORMATION

Table 1. *WP4 Summary of upgraded & implemented courses and student evaluations*

Implementation of course upgrades and student participation indicators	**Minimal expected number**	**Achieved number**	**Details of partner contribution**
Number of upgraded courses in workshops	10	37	FOI:12, SOM:6, OU:3, OULU:10, GU:6
Number of implemented courses	10	22	FOI:8, SOM:4, OU:3, Oulu:4, GU:3
Number of ECTS in implemented courses	-	137.5	FOI:33, SOM:7.5, OU:75, Oulu:18, GU:4
Number of students on implemented courses	-	2083	FOI:1106, SOM:91, OU:670, Oulu:156, GU:60
Number of courses evaluated by students	5	13	FOI:7, SOM:3, Oulu:1, OU: -, GU: 2
Number of student responses	200	580 (71)	FOI:508, SOM:37, OU: -, Oulu:24, GU: 11 (OU:58, Oulu:13 Student evaluation of BDP course design potential)

Table 1. *Detailed overview of the upgraded courses and participating students in WP4*

	Title of the upgraded course	**No of students in the course**	**No of students' responses**	**ECTS**	**No of teachers in the course**	**Course delivery**	**Compulsory/Elective**	**pedagogy…**
FOI	Fundamentals of Accounting Information System	115	88	5	2	Blended, asynch.		flipped classroom
	Fundamentals of quality management	24	-	3	2	Blended, asynch.		project approach
	Introduction to IT projects	101	17	3	1+1asis.	Blended, asynch.		project approach
	Mathematics 2	415	131	5	3+6asis.	Bended		flipped classroom
	Business Decision Making	351	219	4	2+2asis.	Blended		flipped classroom
	E-Learning Strategy and Management	32	20	5	2+1asis.	Online, synch.		flipped classroom
	Financial mathematics	38	15	4	1+1asis,	Blended	compulsory	flipped classroom
	Statistical data analysis	30	18	4	1+1asis,	Blended	compulsory	flipped clasroom
	TOTAL	**1106**	**508**	**33**	14+12asi.			
SOM	Kirurško liječenje akutne ishemije	11	11	1	6	Blended	Elective	flipped classroom
	Nerve signal in diseases of signal generation and transmission	15	15	1,5	2	Blended	Elective	flipped clasroom
	Principles of Evidence based medicine (PEBM)	35	11	1	5	Online, synch.	Compulsory	flipped classroom
	Nursing in Human Health and Professional Diseases	30	-	4	3	Blended	Elective	flipped classroom
	TOTAL	**91**	**37**	**7,5**	16			
OU	SK298 Brain, Mind and Mental Health	635	-	15	37	Online, asynch.	Compulsory	-
	H890 Research and scholarship in digital education	9	-	30	4	Online, asynch.	Compulsory	-
	EE842 Exploring educational leadership: values, context, and strategy	26	-	30	4	Online, asynch.	Compulsory	-
	The Curriculum Design Student Panel (student body, not a course)	-	58	-	-	-	-	-
	TOTAL	**670**	**58**	**75**	45			
Oulu	Oppimispsykologia I (Learning psychology I)	24	24	5	2	Blended, synch.	Compulsory	Inquiry learning

	Oppimispsykologia I (Learning psychology I): students evaluated their next year course	-	13	-	1	Blended	Compulsory	Inquiry learning
	History and social studies	22	-	3	1	Blended	Compulsory	
	Operations and supply chain management	90	-	5		Blended	Compulsory	
	Collaborative Learning Designs	20	-	5	2	F2F	Compulsory	
	TOTAL	**156**	**37**	**18**	6			
GU	Bildung und Virtualität	40	-	3	1	F2F	Compulsory	-
	eLearning-Didaktik	8	6	-	2	online	Elective	flipped classroom
	Tutor*innentreffen	12	5	1	1	online	Compulsory	flipped classroom
	TOTAL	**60**	11	**4**	4			

STUDENT SURVEY ANALYSIS

Students evaluate course designs created through the BDP tool and concept.

The teacher of the upgraded courses introduced students to the course learning design created in the BDP tool. The teacher showed the course learning design, the analytics and provided students with the access link so they can check the learning design on their own time. At the end of the course, students were asked to complete an online survey and evaluate the course design from the student's perspective as well as to provide indicate if they accessed the BDP learning design on their own time and if the learning design overview of and analytics were useful to them. Altogether 13 courses were upgraded, implemented, and evaluated by students. The courses ranged from 1 to 5 ECTS credits in scope and were mostly blended (9), online (4) implementations.
From 2083 participating students, up to 580 students provided their feedback in a form of Likert-scale and open-ended questions. The open-ended questions enabled students to elaborate of the positive and negative aspects of the course designs as well as they general experiences from the course. Below we provide the results of the students' evaluations.

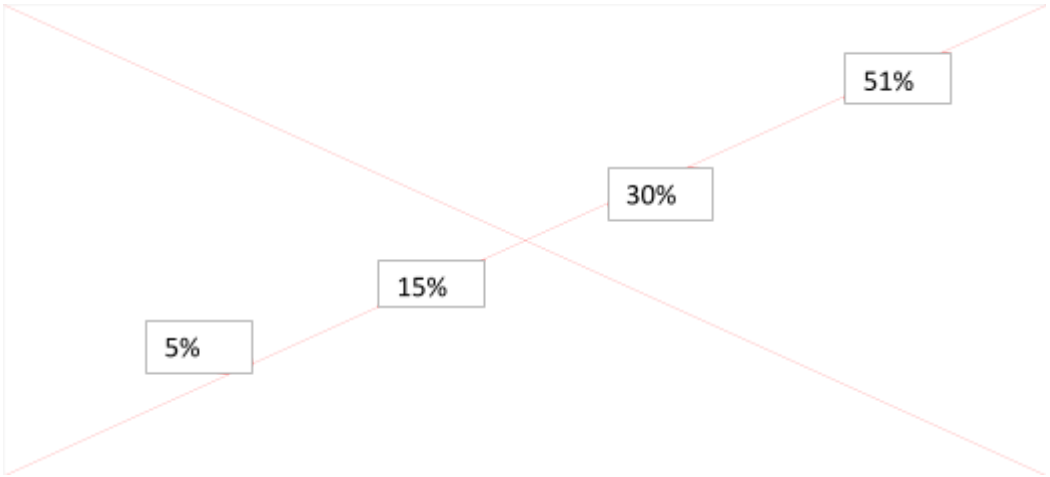
Q1. The way this course was designed supported my learning.
Altogether 580 students answered Q1 and 75% of students indicated that the way the course was designed supported their learning, which is a good indicator of successful update of the courses. Only 8% of students indicated the course design was not supportive of their learning process and 17% did not have a clear opinion on the matter.

Figure 1. Distribution of students' responses to Q1.

Q2. Did you use the learning design (LD) link in the BDP tool to check details on the course activities?

Altogether 522 students answered Q2 and as illustrated by the results of student survey, half of the students (51%) did not proceed to independently access the course design in the BDP tool after they have already checked it with the teacher. Another 45% used very rarely and occasionally and only 5% of students accessed the course design regularly. The results are understandable as engagement with the course design might not hold the same value for students as it does for teachers.

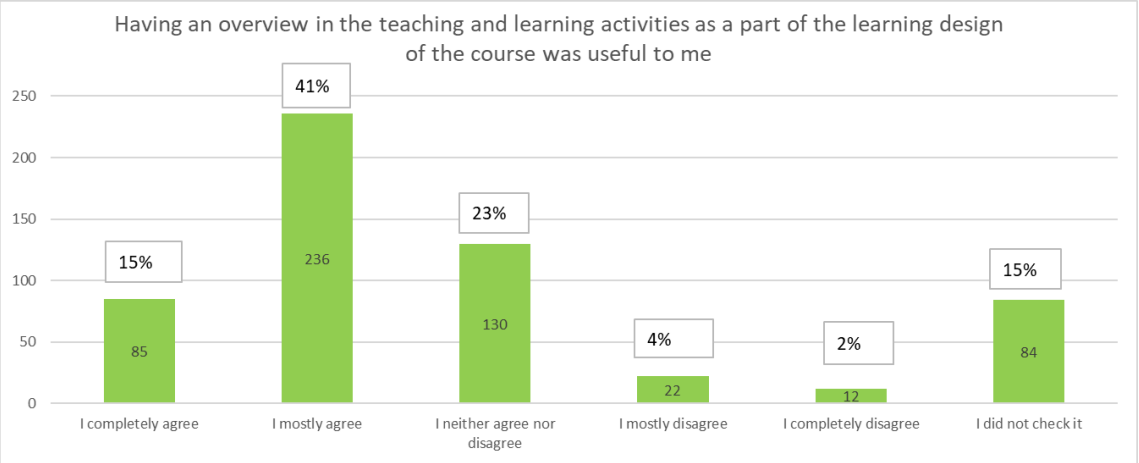
Figure 2. Distribution of students' responses to Q2.



Q3. Having an overview of the teaching and learning activities as a part of the LD of the course was useful to me.

Students were also asked to provide their feedback on the usefulness of the two learning design parts in the BDP tool: general overview of the teaching and learning activities and analytics. For both parts the responses distributed quite similarly. For the overview part, altogether 569 students answered Q3 and 56% of students indicated it to be useful, while 6% of students did not find the use in this information. The remaining 23% of students were undecided or indicated they have not engaged with the overview (15%).

Figure 3. Distribution of students' responses to Q3.

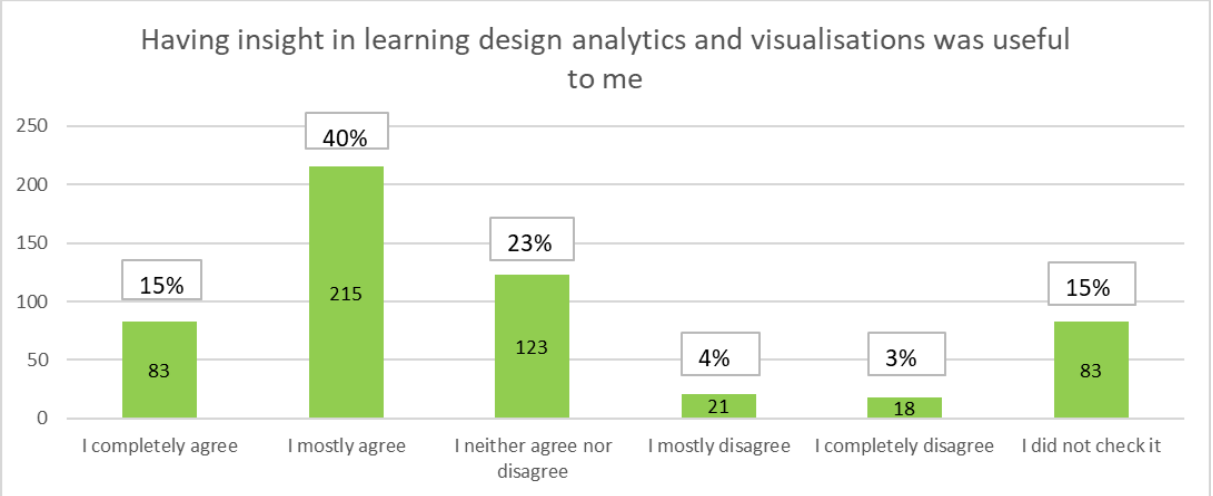


Q4. Having insight in LD analytics and visualizations was useful to me.

Altogether,

543 student answers for Q4 and their answers distributed almost identically like in Q3. Although analytics and visualizations provided very different information compared to general teacher and learning activities in the overview of the course design, students' evaluations of their usefulness were almost identical. From all the students, 55% agreed the analytics part was useful, while the same 23% remained undecided. At the same time, 7% of students indicated that analytics and visualizations were less useful to them (1% less compared to usefulness of the general overview).

Figure 4. Distribution of students' responses to Q4.



STUDENT SURVEY ANALYSIS (POTENTIAL of BDP)

Some students were also asked to evaluate potential usefulness of the BDP course design. Although these students did not participate in the updated courses, they were introduced to the BDP tool and shown examples of course design overview and analytics. The students were also asked to provide their evaluation on potential usefulness of such information for their learning. Altogether 71 students answered the survey and provided their evaluations. The institution and context of survey are provided in Table 2.

Table 2. ***Students evaluate potential of BDP course design***

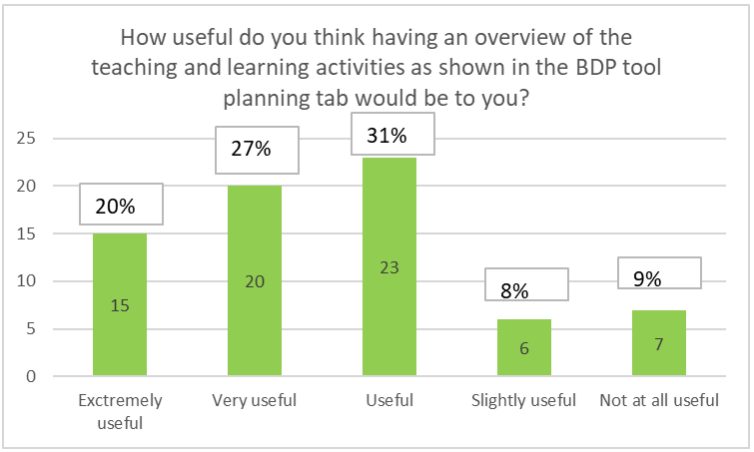
	No of students	**Context**
Oulu	13	3rd year students presented with the design of their next year course
OU	58	The Curriculum Design Student Panel. 1418 student volunteers from all levels of OU study.
TOTAL	**71**	

To compare these student responses with those participating in upgraded courses (presented in the beginning of this report), Pearson Chi Square statistics were used to compare student categorical answer distributions. The results did not show any statistically significant differences ($p>0.05$) between the groups. This indicated that students expectations towards use of the BDP course design information were similar to their actual experiences when participating in upgraded courses and having access to this information about the course.

Q1. How useful do you think having an overview of the teaching and learning activities as shown in the BDP tool planning tab would be to you?

Results indicated that majority students regarded the overview of the teaching and learning activities as potentially useful. From 71 students, 78% indicated it would be useful or extremely useful to have that kind of information available. Remaining 17% indicated it would be slightly useful or not useful at all.

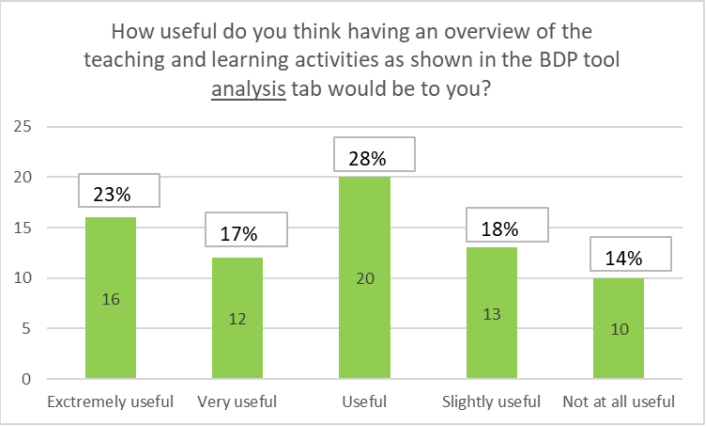
Figure 1. Distribution of students' responses to Q1.



Q2. How useful do you think having an overview of the teaching and learning activities as shown in the BDP tool analysis tab would be to you?

The answer distribution was different regarding the usefulness of course design analytics. From all the students 68% indicated it would be useful or extremely useful. At the same time, 32% of students thought it would be only slightly useful or not useful at all. In comparison to usefulness of the general overview, for students it was more difficult to make use of the analytics.

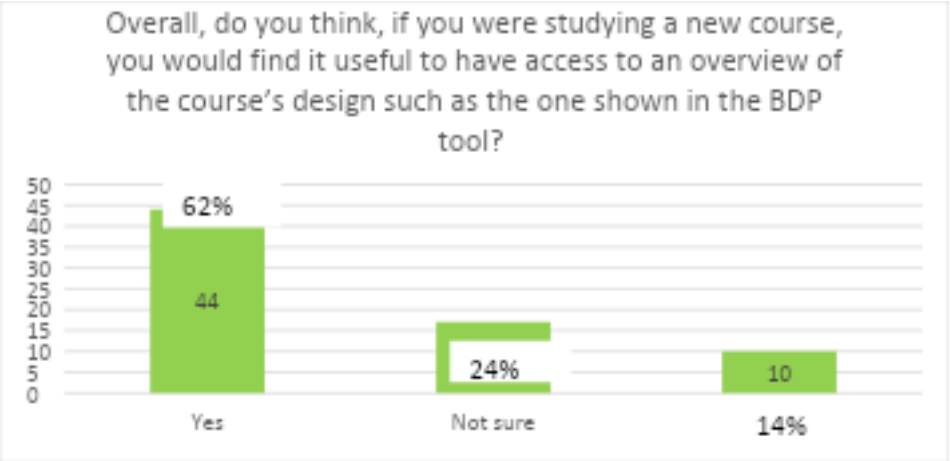
Figure 2. Distribution of students' responses to Q2.



Q3. Overall, do you think, if you were studying a new course, you would find it useful to have access to an overview of the course's design such as the one shown in the BDP tool?

Altogether, 62% of students indicate that they would find the information on course design presented in the BDP tool useful. 24% of students remained undecided and 14% did not find use in this information.

Figure 3. Distribution of students' responses to Q3.



CONCLUSION

To summarize:

- From 580 students 75% were satisfied with the upgraded courses and evaluated that learning designs of those courses were supportive of their learning.
- The BDP course design links were to some extent used by almost half (49%) of the students independently.
- Irrespective of their independent use of the course design info in the BDP, most students (65%) evaluated this information to be useful.
- Other students (26%) were undecided about the usefulness of this information, perhaps because they lacked engagement with it.
- Remaining (9%) of students didn't find that information useful for them.

The overall results of students' evaluations are presented in the table below and accompanying graph.

Table 3. Summarized student evaluation on BDP learning design from all institutions and courses.

Answer	Implemented course group	Not implemented course group	Total
Useful	310	44	354
Undecided	127	17	144
Not useful	37	10	47

Figure 1. Distribution of students' responses from all institutions and courses.