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## Design for engagement in blended learning: insights, practices, and challenges

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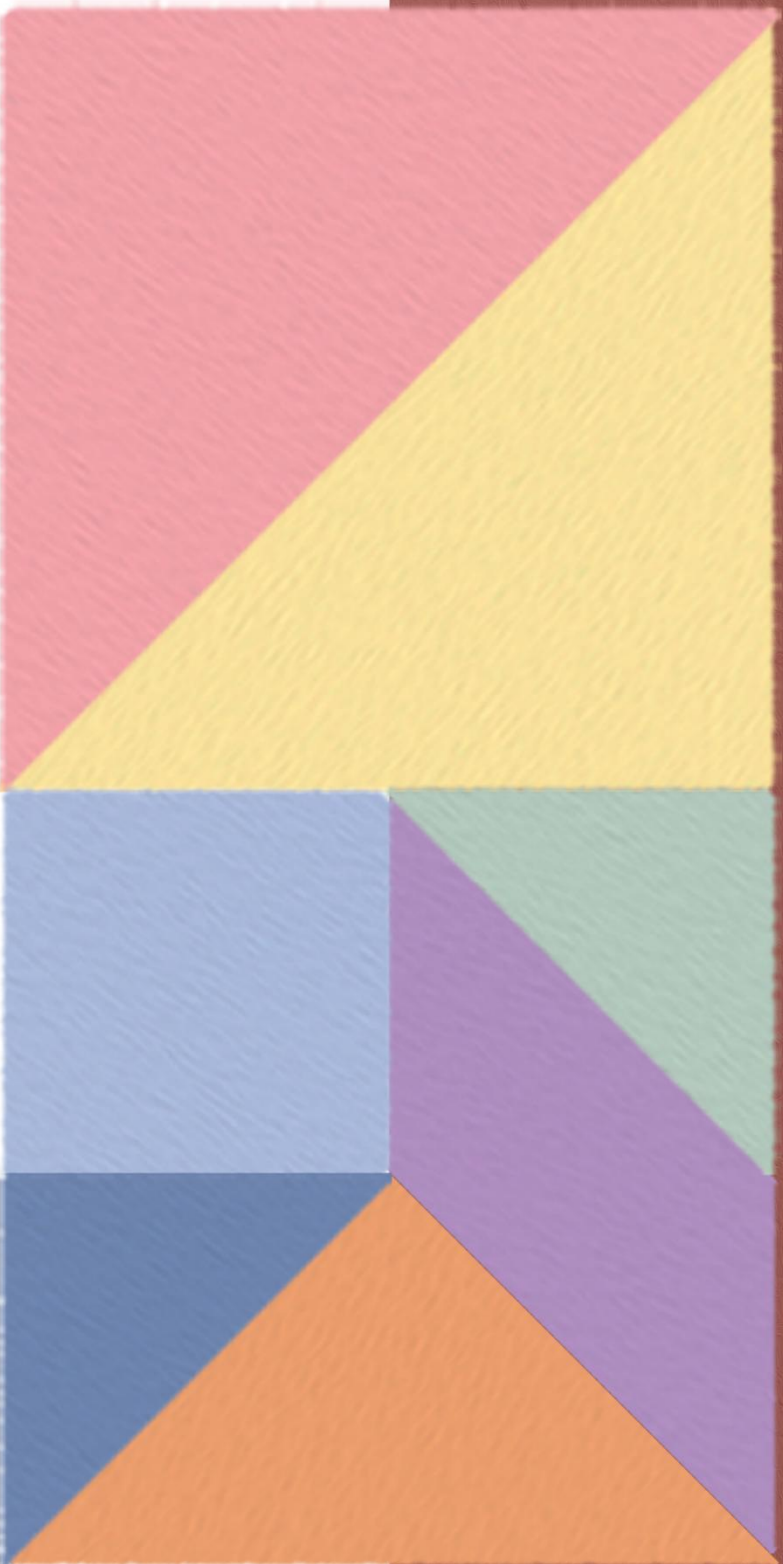
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# Appendices







Appendix B Questionnaires for Learner Control and Student Engagement (Chapter 3)

*B1 Learner Control Scale*

	Literature	Knowledge Clips	Assignments	Workgroup	Lecture
LC1	I felt that I needed to read the literature.	I felt that I needed to watch the knowledge clips.	I felt that I needed to do the workgroup assignments.	I felt that I needed to attend the workgroup.	I felt that I needed to attend the lecture.
LC2	I felt that I had the freedom whether or not to read the literature.	I felt that I had the freedom whether or not to watch the knowledge clips.	I felt that I had the freedom whether or not to do the assignment.	I felt that I had the freedom whether or not to attend the workgroup.	I felt that I had the freedom whether or not to attend the lecture.
LC3	I felt that reading the literature was required.	I felt that watching the knowledge clips was required.	I felt that doing the assignment was required.	I felt that attending the workgroup was required.	I felt that attending the lecture was required.

*B2 Behavioral Engagement Scale*

	Literature	Knowledge Clips	Assignment	Workgroup	Lecture
BE1 (Van der Rijst, Guo & Admiraal, 2023)	I worked as much as I could while reading the literature.	I worked as much as I could while watching the knowledge clips.	I worked as much as I could while doing the assignment.	I worked as much as I could during the workgroup.	I worked as much as I could during the lecture.
BE2 (Van der Rijst, Guo & Admiraal, 2023)	I put in effort while reading the literature.	I put in effort watching the knowledge clips.	I put in effort while doing the assignment.	I put in effort while attending the workgroup.	I put in effort while attending the lecture.
BE3 (Van der Rijst, Guo & Admiraal, 2023)	I read the literature carefully.	I watched the knowledge clips carefully.	I worked on the assignment carefully.	I listened carefully during the workgroup.	I listened carefully during the lecture.

*B3 Emotional Engagement Scale*

	Literature	Knowledge Clips	Assignment	Workgroup	Lecture
EE1 (Manwaring, et al., 2017).	I enjoyed reading the literature.	I enjoyed watching the knowledge clips.	I enjoyed doing the assignment.	I enjoyed attending the workgroup.	I enjoyed attending the lecture.
EE2 (Manwaring, et al., 2017).	Reading the literature was interesting.	Watching the knowledge clips was interesting.	Doing the assignment was interesting.	Attending the workgroup was interesting.	Attending the lecture was interesting.
EE3 (Manwaring, et al., 2017)	I was bored while reading the literature.	I was bored while watching the knowledge clips.	I was bored while doing the assignment.	I was bored during the workgroup.	I was bored during the lecture.
EE4 (Deng, Benckendorff, & Gannaway, 2020)	Reading the literature inspired me.	Watching the knowledge clips inspired me.	Doing the assignment inspired me.	Attending the workgroup inspired me.	Attending the lecture inspired me.

*B4 Cognitive Engagement Scale*

	Literature	Knowledge Clips	Assignment	Workgroup	Lecture
CE1 (Van der Rijst, Guo & Admiraal, 2023)	I tried to relate what I was reading to what I already knew.	I tried to relate what I was watching to what I already knew.	I tried to relate the assignment to what I already knew.	I tried to relate what I was doing during the workgroup to what I already knew.	I tried to relate what I was doing during the lecture to what I already knew.
CE2 (Van der Rijst, Guo & Admiraal, 2023)	I tried to connect what I was reading with my own experiences.	I tried to connect what I was watching with my own experiences.	I tried to connect the assignment with my own experiences.	I tried to connect what I was doing during the workgroup with my own experiences.	I tried to connect what I was doing during the lecture with my own experiences.
CE3 (Van der Rijst, Guo & Admiraal, 2023)	I tried to make sense out of the different ideas while reading.	I tried to make sense out of the different ideas while watching the knowledge clips.	I tried to make sense out of the different ideas while doing the assignment.	I tried to make sense out of the different ideas while attending the workgroup.	I tried to make sense out of the different ideas while attending the lecture.

*Appendix C Questionnaires on Student Engagement in Tutorials (Chapter 4 & Chapter 5)*

*C1 Behavioral Engagement*

1. I tried hard to do well in the tutorial.
2. I worked as hard as I could in the tutorial.
3. I paid attention in the tutorial.
4. I listened very carefully in the tutorial.
5. I took notes in the tutorial.
6. I made an effort in the tutorial.
7. I raised my hands in the tutorial.

*C2 Emotional Engagement*

1. When I was in the tutorial, I felt curious about what we were learning.
2. When we worked on something in the tutorial, I felt interested.
3. I enjoyed learning new things in the tutorial.
4. The tutorial was fun.
5. I really wanted to attend the tutorial.
6. I was inspired to expand my knowledge in the tutorial.
7. I found the tutorial interesting.
8. I enjoyed the tutorial.

*C3 Cognitive Engagement*

1. I tried to relate what I was learning to what I already knew in the tutorial.

2. I tried to connect what I was learning with my own experiences in the tutorial.
3. I tried to make all the different ideas fit together and make sense in the tutorial.
4. I made up my own examples to help me understand the important concepts in the tutorial.
5. I often searched for further information when I encountered something that puzzled me in the tutorial
6. When I had trouble understanding a concept or an example, I went over it again until I understood it in the tutorial.

#### *C4 Social Engagement*

1. I participated in the tutorial discussions.
2. I often responded to other students' questions in the tutorial.
3. I contributed to tutorial discussions.
4. I shared learning materials in the tutorial.
5. I helped fellow students in the tutorial.
6. I participated in small-group discussions in the tutorial.

#### *Appendix D Questionnaires on Motivation and Self-Regulation Learning (Chapter 5)*

#### *D1 Motivation*

1. Intr1 Because I am highly interested in doing this.
2. Intr2 Because I enjoy doing it.
3. Intr3 Because it's fun.
4. Intr4 Because it's an exciting thing to do.
5. Ident1 Because I want to learn new things.
6. Ident2 Because it is personally important to me.
7. Ident3 Because this represents a meaningful choice to me.
8. Ident4 Because this is an important life goal to me.
9. Introj1 Because I want others to think I'm smart.
10. Introj2 Because I would feel guilty if I didn't study.
11. Introj3 Because I would feel ashamed if I didn't study.
12. Introj4 Because I want others to think I'm a good student.
13. Ext1 Because I'm supposed to do so.
14. Ext2 Because that's something others (parents, friends, etc.) force me to do.
15. Ext3 Because others (parents, friends, etc.) oblige me to do so.
16. Ext4 Because that's what others (e.g., parents, friends) expect me to do.

*D2 Self-regulation skills scale*

*Before the course (planning)*

1. I think about what I really need to learn before I begin a task in a course.

2. I ask myself questions about what I am to study before each activity in a course.
3. I set short-term (daily or weekly) goals as well as long-term goals (monthly or for a whole course).
4. I set goals to help me manage my studying time for a course.
5. I set specific goals before I begin a task in a course.
6. I think of alternative ways to solve a problem and choose the best one for a course.
7. At the start of the task I think about the study strategies I will use in this task.

*During the course (monitoring)*

8. When I study for a course, I try to use strategies that I have worked in the past.
9. I have a specific purpose for each strategy I use in a course.
10. I am aware of what strategies I use when I study for a course.
11. I change strategies when I do not make progress while learning for a course.
12. I periodically review to help me understand important relationships in a course.
13. I find myself pausing regularly to check my comprehension of this online course.

14. I ask myself questions about how well I am doing while learning something in a course.

*After the course (reflection)*

15. I think about what I have learned after I finish working on a task/course.

16. I ask myself how well I accomplished my goals once I'm finished working on a task/course.

17. After studying a course, I think about the study strategies I used.

18. I find myself analyzing the usefulness of strategies while I study.

19. I ask myself if there were other ways to do things after I finish learning.

20. After studying I reflect on what I have learned.