

Procedure and theoretical background

Step 1. Choose a MOOC

Choose the MOOC you want to analyse. We recommend to choose a MOOC in which you participated as a student or in the design, as a teacher/tutor (or alternatively with a topic with which you have some affinity).

To get as much variety in the data as possible we would like to ask designers and teacher of the same MOOC project teams to choose (if possible) different MOOCs.

The MOOC you choose should meet the following requirements:

- You need at least access to the second week/module of the MOOC.
- Formative assessment should be applied in at least one week/module.

Step 2. Preview

To get an impression of the survey structure and content please first have a look at the pdf document 'Common and best practices in MOOC design'. The actual survey is accessible via a google form. **Be aware!** The survey has to be filled in in one go. It is not possible to save your answers between times in the google form.

Step 3. Theoretical background (*optional*)

Recent literature (see for example Rosewell & Jansen, 2014; Margaryan, Bianco & Littlejohn, 2015; Spector, 2014) opens up the academic discussion on quality of MOOCs.

In this study we selected three aspects, shared by the above mentioned literature and literature in general, to study more in depth common practice in the design of MOOCs.

The first two aspects study the use of learning goals or envisaged learning outcomes and if and how the learning activities are aligned with goals and outcomes. It also studies, if MOOCs as a collection of offerings, offer learning activities at various levels of complexity to allow learners to choose a MOOC that suits their needs and be able to learn at various levels. These two aspects refer to the principles of **constructive alignment** and **task complexity**. The third aspect that emerges from literature, relates to the role of **formative assessment and feedback** as part of the learning activities.

Constructive alignment

The principle of *constructive alignment* (Biggs, 2003) states that the learning goals, the learning activities and assignments and assessment should be aligned. Meaning that there has to be a coherence between that what students are supposed to learn and that what they actually could learn by performing the learning activities and taking the assessments.

Task complexity

To be able to determine to what extent the principle of *constructive alignment* is used and is met, it is important to know at what level of complexity the learning goals and corresponding learning activities are being offered. Complexity levels of learning goals, learning activities and assessments can be indicated by Miller's pyramid (Miller, 1990; van Berkel, Bax & Joosten-ten Brinke, 2014).

Miller's pyramid distinguishes four complexity levels:

Knows: The knowledge a student must have.

Knows how: The student knows how to apply his/her knowledge.

Shows how: The student shows that he/she can use his/her knowledge in a simulated situation.

Does: The student shows that he/she can use his/her knowledge in everyday practice.

Formative assessment and feedback

The design of the education (in MOOCs) is strongly influenced by the use of interactions and the use of formative assessment and feedback. Interaction often is used to indicate that students learn from each other or from the teacher, get support and feedback.

In a learning environment, three types of student-interaction can be distinguished:

1. interaction between students (student-student; S-S);
2. interaction between students and teachers (student-teacher; S-T);
3. interaction between students and content (S-C).

Formative assessment and feedback is an important part of learning (Hattie & Timperley, 2007). We will study the use of formative feedback and how they relate the activities designed.

Step 4. Fill in the survey

After studying 'Common and best practices in MOOC design, you can find the questionnaire via this link:

<http://bit.ly/29sFqos>

References:

Anderson, T.D. (2002). Getting the mix right: An update and theoretical rationale for interaction. Retrieved from <http://itforum.coe.uga.edu/paper63/paper63.htm>

Biggs, J. (2003). Aligning teaching for constructive learning. Higher Education Academy, 1- 4. Retrieved from https://www.heacademy.ac.uk/sites/default/files/resources/id477_aligning_teaching_for_constructing_learning.pdf

Margaryan, A., Bianco, M., Littlejohn, A. (2015). Instructional quality of Massive Open Online Courses (MOOCs). Computers & Education , 80, 77-83.

Miller, G. (1990). The assessment of clinical skills/competence/performance. *Academic Medicine*, 65, 63-67.

Rosewell, J., Jansen, D. (2014). The OpenupED quality label: benchmarks for MOOCs. *The International Journal of Innovation and Quality in Learning*, 87-100.

Spector, J.M. (2014). Remarks on MOOCs and Mini-MOOCs. *Education Tech Research Dev*, 62, 385-392.

SLO (n.d.) Weet wat je meet. Omschrijving gedragscategorieën Miller. Retrieved from <http://www.eetwatjemeet.slo.nl/documenten/Omschrijving-gedragscategorieen-Miller.pdf/>

Van Berkel, H., Bax, A., Jooste-ten Brinke, D. (2014). Toetsen in het hoger onderwijs. *Bohn Stafleu van Loghum*, 221-223.

Common and best practices in MOOC Design

Informed consent:

This is the questionnaire for the SOONER PhD project 'Scaling support, feedback and interaction in open online education', conducted by Julia Kasch (PhD student), Marco Kalz, (promotor) and Peter van Rosmalen (daily supervisor).

Why do we process your data?

The data is collected to contribute to fundamental research on open education and MOOCs. You are invited and participate in the survey on a voluntary basis. During the processing of the data, these personal data will be further anonymised via an ID-code.

How long do we keep your data?

The data will be transferred and stored securely on servers of the Open University of the Netherlands. Aggregated and anonymised data might in the future also be shared via an open data repository.

How do we protect your data?

The Open University of the Netherlands fully complies with the requirements of the Dutch Personal Data Protection Act (Wet bescherming persoonsgegevens). All personal information provided is treated with the utmost care, and is carefully processed and protected. All data in electronic format (e-mails, documents, uploaded batches of data etc.) are stored on the servers of the Open University of the Netherlands in a secure environment. The Open University of the Netherlands has implemented a number of security measures, including measures to prevent unauthorized parties from accessing personal information.

Who has access to your data and to whom is it disclosed?

Access to your data is provided to authorised staff according to the need to know principle. Such staff abide by statutory, and when required, additional confidentiality agreements. Personal data will be only accessed by researchers of the SOONER Project.

What are your rights?

According to the Personal Data Protection Act (Wet bescherming persoonsgegevens) of the Netherlands participants have the right to be informed about data processing (as provided above) and the right to request a full and clear summary of the data that are being processed. Participants can request the correction, deletion or blocking of data if it is factually inaccurate, incomplete or irrelevant to the purpose or purposes of the processing, or is being processed in any other way which infringes a legal provision (Articles 35 and 36, Wbp). The request must state what modifications are to be made.

More information

If you want to know more about this research or you want to ask for deletion or adaptation of your data at a later point of time you can get in touch with the data administrator responsible for this research under julia.kasch@ou.nl.

* Required

1. **Do you confirm that you (1) have read the information about the research, (2) had the opportunity to ask questions about the research, (3) had time to think about participating in the research and that your participation is voluntary and that you agree to participate in this questionnaire? ***

Mark only one oval.

- yes *Skip to question 2.*
- no *Stop filling out this form.*

1. Demographics

Thank you very much for your participation in this study. After you filled in the demographics section, the questionnaire will start.

2. 1.1 What is your birthyear? *

3. 1.2 What is your nationality? *

4. 1.3 Your sex *

Mark only one oval.

male

female

5. 1.4 You primarily work at a/in.. *

Mark only one oval.

University research institute

Education

Private Sector

Other: -----

6. 1.5 How many years of experience do you have in Open Online Education (in general): *

Mark only one oval.

less than 1 year

1 - 2 year(s)

2 -5 years

more than 5 years

7. 1.6 How many years of experience do you have with MOOCs? (in general): *

Mark only one oval.

less than 1 year

1 - 2 year(s)

2 -5 years

more than 5 years

8. 1.7 How would you describe your role related to MOOCs primarily? *

Mark only one oval.

teacher/tutor *Skip to question 10.*

researcher/ (co-)designer *Skip to question 9.*

student *Skip to question 11.*

Other: -----

MOOC researcher/(co-)designer

9. 1.8 How many MOOCs did you (co-) design?

MOOC teacher/tutor/assistant

10. 1.9 In how many MOOCs did you act as a teacher/tutor/assistant?

MOOC student

11. 1.10 In how many MOOCs did you participate?

2. General MOOC information

In this section we ask you to give some background information about the specific MOOC that you choose to use for this survey.

12. 2.1 Name of the MOOC *

13. 2.2 Duration of the MOOC (in weeks) *

14. 2.3 Weblink of the MOOC *

15. 2.4 On which platform is the MOOC offered? (Coursera, EdX, EMMA...)*

16. 2.5 Who is the MOOC provider? (name of university, company..)

17. 2.6 How many students are enrolled in this MOOC?

3. MOOC learning goals and their complexity

In this section you will analyse the complexity of the general learning goals/course objectives of the MOOC based on Miller's classification. The learning goals/course objectives are mentioned at the beginning of the MOOC and are not the same as the learning goals for each week/module or learning activity.

(1) Knows: The knowledge a student must have.

- Examples of actions the student has to perform: name, identify, sum up, repeat, read, give a definition, name the method, label, underline

(2) Knows how: The student knows how to apply his/her knowledge.

- Examples of actions the student has to perform: declare, explain, interpret, plan, put in order, select, summarize, give an example of, identify inconsistencies, comparison between, combine, state differences between

(3) Shows how: The student shows that he/she can use his/her knowledge in a simulated situation.

- Examples of actions the student has to perform: demonstrate, apply, use, perform, construct, design, organize, make a plan, invent, chair meetings, discuss, evaluate, defend, analyse

(4) Does: The student shows that he/she can use his/her knowledge in everyday practice.

- Examples of actions the student has to perform: are the same as for the 'shows how' level

18. 3.1 Are the course learning goals of the MOOC indicated? *

Mark only one oval.

- yes *Skip to question 19.*
- no *Skip to question 22.*

3. MOOC learning goals and their complexity**19. 3.2 To what extent are the course learning goals of the MOOC explicitly mentioned? ***

Mark only one oval.

- very high extent
- high extent
- low extent

20. 3.3 What is the highest complexity level of the course learning goals: **Mark only one oval.*

- does (student shows that (s)he can use the knowledge in everyday practice)
- shows how (student shows how (s)he can use the knowledge in a simulated situation)
- knows how (student knows how to apply the knowledge)
- knows (the knowledge a student must have)

21. 3.4 Write down the course learning goal with the highest complexity level: *

4. Knowledge**22. 4.1 Does the MOOC indicate which knowledge the student needs in order to follow the course? ****Mark only one oval.*

- yes *Skip to question 23.*
- no *Skip to question 24.*

4. Knowledge**23. 4.2 How explicitly does the MOOC indicate which knowledge is required to follow this course: ****Mark only one oval.*

- very explicit
- explicit
- not explicit

5. Analysis Unit of Learning (UoL)

To limit the scope of this survey you will not analyse the entire MOOC but only a 'Unit of Learning'. A Unit of Learning (UoL) has a clear beginning and end. The beginning of a UoL is often identified by a brief introduction which often (but not always) discusses the learning objectives and content. A UoL often (but not always) ends with a summary and or final assignment. Depending on the MOOC different terms are used for a UoL such as "week" or "module".

Scan the MOOC globally and pick a week/module that interests you or that uses interesting instruments or assignments. The UoL selected should, if possible, at least contain some form of formative assessment or feedback.

24. 5.1 Name/Title UoL: *

25. **5.2 In which week of the MOOC does the UoL take place? ***

6. Constructive alignment in the UoL

In the following parts you will analyse the design of the UoL you selected. Is the UoL designed according to the constructive alignment principle: Is the complexity level of the learning goals determined and is it consistent with the complexity of the learning activities?

26. **6.1 Are there learning goals indicated for the UoL? ***

Mark only one oval.

- yes *Skip to question 27.*
- no *Skip to question 30.*

6. Constructive alignment in the UoL

27. **6.2 To what extent are the learning goals of the UoL explicitly mentioned? ***

Mark only one oval.

- very high extent
- high extent
- low extent

28. **6.3 What is the highest complexity level of these learning goals? ***

Mark only one oval.

- does (student shows that (s)he can use the knowledge in everyday practice)
- shows how (student shows that (s)he can use the knowledge in a simulated situation)
- knows how (student knows how to apply the knowledge)
- knows (the knowledge a student must have)

29. **6.4 Write down the learning goal with the highest complexity level: ***

7. Learning activity/activities at the 'does' level

(1) Knows: The knowledge a student must have.

- Examples of actions the student has to perform: name, identify, sum up, repeat, read, give a definition, name the method, label, underline

(2) Knows how: The student knows how to apply his/her knowledge.

- Examples of actions the student has to perform: declare, explain, interpret, plan, put in order, select, summarize, give an example of, identify inconsistencies, comparison between, combine, state differences between

(3) Shows how: The student shows that he/she can use his/her knowledge in a simulated situation.

- Examples of actions the student has to perform: demonstrate, apply, use, perform, construct, design, organize, make a plan, invent, chair meetings, discuss, evaluate, defend, analyse

(4) Does: The student shows that he/she can use his/her knowledge in everyday practice.

- Examples of actions the student has to perform: are the same as for the 'shows how' level

30. 7.1 Contains the UoL one or more learning activities at the 'does' level? *

Mark only one oval.

yes Skip to question 31.

no Skip to question 33.

7. Learning activity/activities at the 'does' level

Does: The student shows that he/she can use his/her knowledge in everyday practice.

- Examples of actions the student has to perform: are the same as for the 'shows how' level

31. 7.2 What types of learning activities should the student carry out in the UoL at the 'does' level? (check all that apply) *

Check all that apply.

- reading
- video
- audio recording
- essay and/or design activity and/or blogpost
- quiz with open questions
- quiz with closed questions
- simulation and or game
- group assignment
- Other:

7.3 Describe the learning activity/activities shortly.

Discuss at least the following aspects: (1) What is the student asked to do in the learning activity/activities? (2) What type(s) of learning material(s) does the student use during the learning activity/activities? (articles, forum, simulation environment, instructional video..)

8. Learning activity/activities at the 'shows how' level

(1) Knows: The knowledge a student must have.

- Examples of actions the student has to perform: name, identify, sum up, repeat, read, give a definition, name the method, label, underline

(2) Knows how: The student knows how to apply his/her knowledge.

- Examples of actions the student has to perform: declare, explain, interpret, plan, put in order, select, summarize, give an example of, identify inconsistencies, comparison between, combine, state differences between

(3) Shows how: The student shows that he/she can use his/her knowledge in a simulated situation.

- Examples of actions the student has to perform: demonstrate, apply, use, perform, construct, design, organize, make a plan, invent, chair meetings, discuss, evaluate, defend, analyse

(4) Does: The student shows that he/she can use his/her knowledge in everyday practice.

- Examples of actions the student has to perform: are the same as for the 'shows how' level

33. **8.1 Contains the UoL one or more learning activities at the 'shows how' level? ***

Mark only one oval.

- yes Skip to question 34.
- no Skip to question 36.

8. Learning activity/activities at the 'shows how' level

Shows how: The student shows that he/she can use his/her knowledge in a simulated situation.

- Examples of actions the student has to perform: demonstrate, apply, use, perform, construct, design, organize, make a plan, invent, chair meetings, discuss, evaluate, defend, analyse

34. **8.2 What types of learning activities should the student carry out in the UoL at the 'shows how' level? (check all that apply) ***

Check all that apply.

- reading
- video
- audio recording
- essay and/or design activity and/or blogpost
- quiz with open questions
- quiz with closed questions
- simulation and or game
- group assignment
- Other: _____

35. **8.3 Describe the learning activity/activities shortly.**

Discuss at least the following aspects: (1) What is the student asked to do in the learning activity/activities? (2) What type(s) of learning material(s) does the student use during the learning activity/activities? (articles, forum, simulation environment, instructional video..)

9. Learning activity/activities at the 'knows how' level

(1) Knows: The knowledge a student must have.

- Examples of actions the student has to perform: name, identify, sum up, repeat, read, give a definition, name the method, label, underline

(2) Knows how: The student knows how to apply his/her knowledge.

- Examples of actions the student has to perform: declare, explain, interpret, plan, put in order, select, summarize, give an example of, identify inconsistencies, comparison between, combine, state differences between

(3) Shows how: The student shows that he/she can use his/her knowledge in a simulated situation.

- Examples of actions the student has to perform: demonstrate, apply, use, perform, construct, design, organize, make a plan, invent, chair meetings, discuss, evaluate, defend, analyse

(4) Does: The student shows that he/she can use his/her knowledge in everyday practice.

- Examples of actions the student has to perform: are the same as for the 'shows how' level

36. **9.1 Contains the UoL one or more learning activities at the 'knows how' level? ***

Mark only one oval.

yes Skip to question 37.

no Skip to question 39.

9. Learning activity/activities at the 'knows how' level

Knows how: The student knows how to apply his/her knowledge.

- Examples of actions the student has to perform: declare, explain, interpret, plan, put in order, select, summarize, give an example of, identify inconsistencies, comparison between, combine, state differences between

37. **9.2 What types of learning activities should the student carry out in the UoL at the 'knows how' level? (check all that apply) ***

Check all that apply.

- reading
- video
- audio recording
- essay and/or design activity and/or blogpost
- quiz with open questions
- quiz with closed questions
- simulation and or game
- group assignment
- Other: _____

38. **9.3 Describe the learning activity/activities shortly.**

Discuss at least the following aspects: (1) What is the student asked to do in the learning activity/activities? (2) What type(s) of learning material(s) does the student use during the learning activity/activities? (articles, forum, simulation environment, instructional video..)

10. Learning activity/activities at the 'knows' level

(1) Knows: The knowledge a student must have.

- Examples of actions the student has to perform: name, identify, sum up, repeat, read, give a definition, name the method, label, underline

(2) Knows how: The student knows how to apply his/her knowledge.

- Examples of actions the student has to perform: declare, explain, interpret, plan, put in order, select, summarize, give an example of, identify inconsistencies, comparison between, combine, state differences between

(3) Shows how: The student shows that he/she can use his/her knowledge in a simulated situation.

- Examples of actions the student has to perform: demonstrate, apply, use, perform, construct, design, organize, make a plan, invent, chair meetings, discuss, evaluate, defend, analyse

(4) Does: The student shows that he/she can use his/her knowledge in everyday practice.

- Examples of actions the student has to perform: are the same as for the 'shows how' level

39. **10.1 Contains the UoL one or more learning activities at the 'knows' level? ***

Mark only one oval.

yes Skip to question 40.

no Skip to "Interaction within the UoL."

10. Learning activity/activities at the 'knows' level

Knows: The knowledge a student must have.

- Examples of actions the student has to perform: name, identify, sum up, repeat, read, give a definition, name the method, label, underline

40. **10.2 What types of learning activities should the student carry out in the UoL at the 'knows' level? (check all that apply) ***

Check all that apply.

- reading
- video
- audio recording
- essay and/or design activity and/or blogpost
- quiz with open questions
- quiz with closed questions
- simulation and or game
- group assignment
- Other: _____

41. **10.3 Describe the learning activity/activities shortly.**

Discuss at least the following aspects: (1) What is the student asked to do in the learning activity/activities? (2) What type(s) of learning material(s) does the student use during the learning activity/activities? (articles, forum, simulation environment, instructional video..)

Interaction within the UoL

In the previous part you got a first impression of the design of the UoL. Now, you will focus on the interaction that takes place between the student(s), teacher(s) and the learning material/environment.

You will focus on three interaction types and analyse whether and how these are taking place in the UoL:

- student-student interaction: e.g. group assignments, peer feedback/assessment, brainstorming
- student-teacher interaction: e.g. feedback, support via email/chat/forum, live hangout, video session
- student- learning material interaction: e.g. automated feedback through a game, simulation and/or quiz

11. Student - student interaction

- student-student interaction: e.g. group assignments, peer feedback/assessment, brainstorming
- student-teacher interaction: e.g. feedback, support via email/chat/forum, live hangout, video session
- student- learning material interaction: e.g. automated feedback through a game, simulation and/or quiz

42. 11.1 Is student-student interaction part of the UoL? *

Mark only one oval.

- yes *Skip to question 43.*
- no *Skip to question 45.*

11. Student-Student interaction

43. 11.2 Describe the interaction shortly *

Discuss at least the following aspects: (1) What happens between the two parties? (2) Which role/function/task do the parties have?

44. 11.3 How does the student - student interaction take place? (check all that apply) *

Check all that apply.

- synchronously: for example via chat, skype, hangout
- asynchronously: for example via email, forum, facebook

12. Student - teacher interaction

- student-student interaction: e.g. group assignments, peer feedback/assessment, brainstorming

- student-teacher interaction: e.g. feedback, support via email/chat/forum, live hangout, video session

- student- learning material interaction: e.g. automated feedback through a game, simulation and/or quiz

45. 12.1 Is student - teacher interaction part of the UoL? *

Mark only one oval.

yes *Skip to question 46.*

no *Skip to question 48.*

12. Student - teacher interaction

46. 12.2 Describe the interaction shortly *

Discuss at least the following aspects: (1) What happens between the two parties? (2) Which role/function/task do the parties have?

47. 12.3 How does the student - teacher interaction take place? (check all that apply) *

Check all that apply.

synchronously: for example via chat, skype, hangout

asynchronously: for example via email, forum, video

Other: _____

13. Student - learning material interaction

- student-student interaction: e.g. group assignments, peer feedback/assessment, brainstorming

- student-teacher interaction: e.g. feedback, support via email/chat/forum, live hangout, video session

- student- learning material interaction: e.g. automated feedback through a game, simulation and/or quiz

48. 13.1 Is student - learning material interaction a part of the UoL? *

Mark only one oval.

yes *Skip to question 49.*

no *Skip to question 50.*

13. Student - learning material interaction

49. 13.3 Describe the interaction shortly *

Discuss at least the following aspects: (1) What happens between the two parties? (2) Which role/function/task do the parties have?

14. Formative assessment and feedback

Earlier you defined the learning activities in the UoL by means of the four levels of Miller's Pyramid. In this part you will analyse whether and how assessment and feedback are aligned with the learning activities. Additionally you will focus on how formative feedback is provided.

Formative assessment: assessment for learning. Is a process in which the assessment is used to get insight into the students learning process. The information is used to provide students and the teacher with feedback and is generally a low stakes assessment (ARG, 2002).

Summative assessment: assessment of learning. With the goal of determining and reporting the learning outcomes (knowledge, skills) at a given time. They are high stakes assessments because they determine whether a student has passed or not (ARG, 2002).

50. 14.1 Does the UoL contain one or more learning activities with formative assessment and feedback? *

Mark only one oval.

- yes, one *Skip to question 51.*
- yes, more than one *Skip to question 51.*
- no, only summative assessment and feedback is provided *Skip to question 61.*
- no assessment and feedback is provided *Skip to question 61.*

14. Formative assessment and feedback

51. 14.2 At which complexity level are learning activities with formative assessment and feedback provided? (check all that apply) *

Check all that apply.

- does (the student shows that (s)he can use the knowledge in everyday practice)
- shows how (the student shows that (s)he can use the knowledge in a simulated situation)
- knows how (the student knows how to apply the knowledge)
- knows (the knowledge a student must have)

52. **14.3 Describe the learning activity/activities with the HIGHEST complexity level for which the student receives formative assessment and feedback.**

Discuss at least the following aspects: (1) What is the goal of the learning activity? (2) What does the student need to do in order to carry out the learning activity?

53. **14.4 How is this/are these learning activity/activities presented? (check all that apply) By means of a.. ***

Check all that apply.

- reading task
- video
- audio recording
- essay and/or design activity and/or blogpost
- quiz with open questions
- quiz with closed questions
- simulation and/or game
- group assignment
- brainstorm and/or discussion task
- Other: _____

54. **14.5 This/these learning activity/activities meet(s) the following aspect(s) (check all that apply): ***

Check all that apply.

- The role of each student is clearly defined
- The expected outcome/contribution is clearly defined
- The student is automatically assigned to a group
- The evaluation of the contribution is supported by rubric
- The evaluation of the contribution is supported by a worked example

55. **14.6 Which form(s) of formative feedback does the student receive for this/these learning activity/activities (check all that apply) ***

Hattie and Timperley (2007) distinguish: -Feed-up: indicates where the student is going (in terms of given evaluation criteria and standards) -Feedback: indicates how the student performed at this learning activity (progress will be discussed) -Feed-forward: indicates which approach is needed in order to grow and meet the evaluation criteria

Check all that apply.

- feed-up
- feedback
- feed-forward

56. **14.7 The formative feedback which indicates how the student performed indicates.. (check all that apply) ***

Check all that apply.

- whether the students' answer (performance) is correct or incorrect (simple)
- what the correct answer (performance) should be (correct response)
- why the answer (performance) is correct or incorrect (elaborated)
- whether the answer (performance) is correct and gives the student a second chance (try again)
- Other: _____

57. **14.8 Describe the way in which formative feedback is given. ***

Discuss at least the following aspects: (1) Is the feedback personalized? (2) How does the student receive feedback? (3) What is the contribution of the several parties (student, fellow student, teacher, learning environment), (4) If the student receives feedback in different ways, describe the order.

58. **14.9 When does the student receive formative feedback for this/these learning activity/activities? (check all that apply) ***

Feedback can be given in various ways. The student can receive feedback in an implicit way in for example simulations in which the simulated learning environment reacts on the students' actions or in a discussion with peers. Additionally, a student can receive feedback in an explicit way during specific feedback moments with peer students, teachers and/or the computer.

Check all that apply.

- whilst carrying out the learning activity, e.g. implicitly via the learning system and/or simulation or as part of the interaction
- whilst carrying out the learning activity, e.g. explicitly via teacher and/or peer and/or system as part of a designed feedback moment
- after the learning activity is completed
- unknown

59. **14.10 From whom does the student receive formative assessment/feedback? (check all that apply) ***

Mark only one oval.

- student gives himself/herself feedback
- fellow student(s)
- teacher(s)
- automated/computer/simulation
- unknown

60. **14.11 How gets the student prepared/trained to give peer feedback? (check all that apply) ***

Check all that apply.

- via a worked example
- via a template
- via a template and a training how to use this
- via rubrics
- via rubrics and a training how to use this
- via an instruction video
- via a training in how to formulate feedback
- the student gets not prepared to give peer feedback
- Other: _____

15. Completion

61. **15.1 May your email address be used to contact you for any follow-up questions and/or to inform you about our findings? ***

Mark only one oval.

- yes
- no

62. **15.2 Please enter your email address if you want to be contacted about follow-up questions and/or to inform you about our findings:**

63. **15.3 Do you have feedback on the analysis template? Please share your opinion about this questionnaire.**

64. **15.4 Finally, we would like to get an impression of the time you invested in this questionnaire (excluding the time it took you to choose a MOOC):**

Mark only one oval.

- 0 - 1 hour
- 1 - 2 hour(s)
- 2 - 4 hours
- 4 - 6 hours
- more than 6 hours