Symposium: Harnessing the power of feedback

Paper 2

Peer assessment in higher education classrooms: Comparing students' and teachers' perspectives

Min Yang

Department of Curriculum & Instruction, Education University of Hong Kong

2018 HKERA

December 13 to 15, 2018, Chinese University of Hong Kong

Outline

- Aim & background of study

- Peer assessment in higher education

- Methods

- Findings

- Discussion & conclusion

- Acknowledgement

AIM & BACKGROUND

Aim of study

To explore

1. How do teachers and students perceive the *usefulness of peer assessment* for improving learning?

2. How do teachers and students perceive the *interpersonal and emotional facets of peer assessment?*

Background of study

- TDG on peer assessment in face-to-face classrooms and technology-enabled learning environments

- Implementation in core courses during July 2017 – August 2018
  - 2 undergraduate general education courses:
    - *GE foundation*
    - *GE on natural hazards*
  - 1 undergraduate core course on *educational leadership in preschools*
  - 1 undergraduate & 1 PGDE core courses on *curriculum & assessment*
  - A total of 5 course teachers (including PI Min Yang) implementing peer assessment using feedback guiding questions (feedback prompts; see Gan & Hattie, 2014)

Peer assessment in higher education

Rationales:
Gaps in research into peer assessment in higher education

- Existing studies reported students' perceptions of the *interpersonal-emotional facet* of the peer assessment process in relation to its *perceived usefulness for learning*

   (van Gennip, Segers, & Tillema, 2009; Yang, Sin, Li, Guo, & Lui, 2014)

   o Existing studies mainly adopted experimental and survey design
   o Hence, a need to gain an in-depth understanding of students' experience qualitatively

- We have yet to understand how teachers perceive the interaction between the usefulness of peer assessment and its *interpersonal-emotional facet*

   (Rotsaert, Panadero, & Schellens, 2018)

- There is evidence on higher education students' and teachers' inconsistent perceptions of the quality and quantity of teachers' feedback practice

   (Mulliner & Tucker, 2017)

- The above has been considered in the context of making use of technologies to enhance the efficacy of peer assessment

usefulness of peer assessment to support learning

Peer assessment where students exchange feedback comments with fellow students is believed to be useful in enhancing the *quantity and quality of feedback*

- Students *understand their peers' approaches to tasks* better than their teachers do
- Students' *ways of expressing comments* are more readily accessible to peers than teachers' feedback, thus potentially increasing uptake of feedback
- By engaging in peer feedback process, students' capability for *critical knowledge building & self-evaluation* can be improved

(Kollar & Fischer, 2010; Nicol, Thomson, & Breslin, 2014; Topping, 2017).

The interpersonal-emotional challenges of peer assessment

- Actions of giving, receiving and using feedback are *social practices*

   (Merry, & Orsmond, 2018; Panadero, 2016; Yang & Carless, 2013)

- *Social relationships* among teachers and students play an important part in peer assessment, which might affect how students engage with it cognitively and emotionally

   - E.g., factors such as friendship pressure, trust/distrust in ones own and others' competence to give quality feedback predicted engagement and satisfaction in the school setting

   (Rotsaert, Panadero, Estrada & Schellens, 2017; van Gennip, Segers, & Tillema, 2009)

- Quality of peer feedback and self-feedback is called into question by students; student-led feedback tends to be less comprehensive than teacher feedback

   (Harris, Brown, & Harnett, 2015)

The state-of-art peer assessment facilitated by technologies

- Learning management systems (e.g., Moodle) and educational apps (e.g., Google; Padlet) offer flexibility for peer assessment practice (Wang & Yang, 2017)

  - Inside or outside classroom / In real time or asynchronously

- Computer-assisted peer assessment: (Li, Xiong, Zang, Kornhaber, Lyu, Chung & Suen, 2016)

  - Meta analysis shows moderately strong (.63) Pearson correlation btw peer and teacher ratings

  - Random allocation of assignments allows anonymity which help avoid friendship pressure

  - Large scale peer assessment in massive open online courses (MOOCs) (Huisman, Admiraal, Pilli, van de Ven, & Saab, 2018)

  - Peer reviewers' peer assessment ability is correlated with their writing ability for higher/medium achievers but not lower achievers

METHODS

Only qualitative methods used in the study are reported here

Methods: participants & data collection

	4 teachers (n=4: 3 males; 1 female) were individually interviewed	13 students (11 females; 2 males) joined 3 focus groups
Phase 1: Fall semester 2017-18	Tina: teacher of course educational leadership in preschools (higher diploma)	11 Year-4 students in Tina's class
	Tricia: teacher of course on curriculum & assessment (PGDE)	
Phase 2: Spring semester 2017-18	Tommy: teacher of GE foundation course (undergraduate)	2 year-1 students in Tommy's class
	Tulip: teacher of GE course on natural hazards (undergraduate)	

Methods: sample questions

Sample questions of teacher interviews	
(i) Experience of guiding students to conduct the peer assessment practices	1. How do you feel about giving students training to use the feedback prompts in giving peer-/self-feedback on assignment drafts? 2. According to your observation, have students used the feedback received from peers to improve their own assignment?
(ii) Experience of using technologies in peer assessment practices	1. How do you feel about asking students to use Padlet in the peer-assessment practice activity during class? 2. How do you feel about asking students to give feedback to anonymous peers /being given peer-feedback by anonymous peers on Moodle?
(iii) Perception on students' social and emotional experiences in peer assessment practices	1. According to your observation, how did students react emotionally to the peer-assessment activity on Moodle? 2. What social dynamics among students did you observe in this class? Did the social dynamics affect how they engage in the peer-assessment activity?

Methods: sample questions

Sample questions of student focus groups

(i) Experience of taking part in peer assessment practices	1. Have you used the feedback given by peers to improve your assignment? *Was it useful/unuseful?* 2. Did your own self-feedback help you do better in completing the final assignment?
(ii) Experience of using technologies in peer assessment practices	1. How do you feel about *using Padlet in the peer-assessment practice* activity during class? 2. How do you feel about *giving feedback to anonymous peers /being given peer-feedback by anonymous peers on Moodle / Gooogle Form?*
(iii) Social and emotional experiences in peer assessment practices	1. Did you feel *safe/relaxed or unsafe/nervous* in the peer-assessment activity on Padlet / Moodle / *Gooogle Form?* Why? 2. If given the options of conducting peer-feedback *with your own friends or anonymous peers,* which way would you prefer? Why?

Methods: data analysis

- Verbatim transcription and translation by student helpers

- Proof-reading to ensure accuracy of transcription/translation by RA

- Thematic analysis of the transcripts:
    - identify important aspects of teacher/student experience and perceptions of engaging in peer assessment practice
    - interpret findings in relation to research questions & themes in literature

Findings

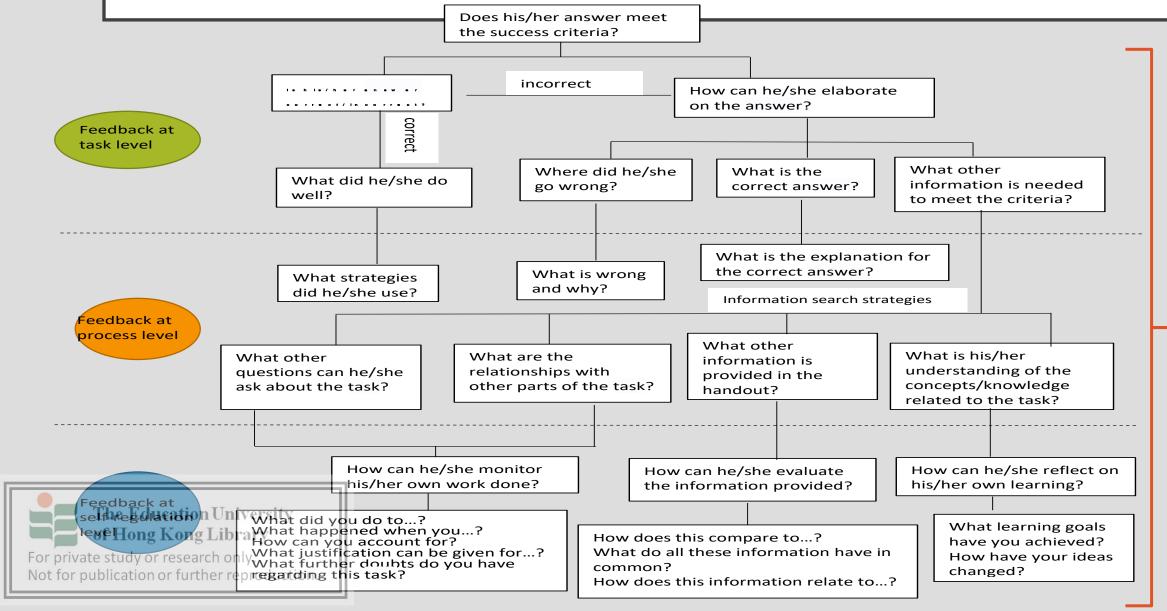Design features of peer assessment practices in the four teachers' courses

Comparing teachers' and students' perspectives on the usefulness of peer assessment and its interpersonal-emotional facet

Theme 1
Design features of peer assessment practices

Teachers	Briefed in 1st lesson?	Conducted *peer feedback training*?	Use *written feedback prompts*?	Integrated *feedback prompts into rubric*?	Used *technologies in PA*?	Required *peer feedback comments*?	Required peer rating, which counted towards final grade?
Tina (phase 1)	Y	Y: teacher demonstration early in course	Y: feedback prompts *without examples*	N	Y: used Padlet in group presentation session	Y: verbal & written feedback on presentation	N: due to concern of demoralisation caused by peer rating
Tricia (phase 1)	Y	N: due to time constraint & part-time mode	N: implicitly used in guiding PA practice	N	N	Y: verbal exchanges in *essay* writing workshop	N: peer-rating not suitable to early drafts/outlines
Tommy (phase 2)	Y	Y: teacher demonstration early/repeatedly	Y: feedback prompts *with examples*	Y: integrated with criteria for *between-group PA*	Y: used Google Form for *between-group PA*	Y: rating on 5-point scale & open comments	N: counting peer-rating might cause social tension & lack of openness
Tulip (phase 2)	Y: teacher demonstration before PA	Y: feedback prompts *with examples*	Y: integrated into *within-group PA form*	Y: PA form submitted on Moodle	Y: rating with open comments	Y: counted into final grade as check on contribution	

Gan and Hattie's (2014) Graphic organizer of feedback levels and question prompts

Does his/her answer meet the success criteria?

Feedback at task level

Is his/her answer correct/incorrect?

incorrect

How can he/she elaborate on the answer?

correct

What did he/she do well?

Where did he/she go wrong?

What is the correct answer?

What other information is needed to meet the criteria?

What is the explanation for the correct answer?

Feedback at process level

What strategies did he/she use?

What is wrong and why?

Information search strategies

What other questions can he/she ask about the task?

What are the relationships with other parts of the task?

What other information is provided in the handout?

What is his/her understanding of the concepts/knowledge related to the task?

Feedback at self-regulation level

How can he/she monitor his/her own work done?

How can he/she evaluate the information provided?

How can he/she reflect on his/her own learning?

What did you do to...?
What happened when you...?
How can you account for?
What justification can be given for...?
What further doubts do you have regarding this task?

How does this compare to...?
What do all these information have in common?
How does this information relate to...?

What learning goals have you achieved?
How have your ideas changed?

Guiding questions

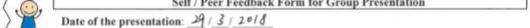| Levels	Guiding questions for giving feedback
Feedback focusing on **Task** Level	- How well is the work done? - Are task/assignment requirements met? - What's missed? What other information should be included?
Feedback focusing on **Process** Level	- How can she/he provide evidence or examples to support arguments? - What might be another way to approach the problem? - How can she/he better integrate different parts of the assignment?
Feedback focusing on **Self-regulation** Level	- How can she/he monitor manage her time better? - How can she/he deal with similar situations in the future? - What further thoughts might be given to the task after finishing it?

Sample peer feedback with feedback prompts integrated in rubric

Self / Peer Feedback Form for Group Presentation

Date of the presentation: 29 / 3 / 2018

Presented by Group # 1

Topic: _Enhancing Effectiveness in Physical Education using IT_

Peer feedback by Group #____ (leave this blank if you are giving self-feedback)

Please give feedback based on guiding questions using Hattie and Timperley's (2007) framework of feedback levels. The presenting group can use this feedback in revising the presentation PPT before submitting to Moodle.

Giving Self-Feedback: Step 1: put the tick sign (✓) in the appropriate space. **Step 2:** give feedback in the form in writing, and share with group mates.

Giving Peer-Feedback: Give feedback to the designated peer group on **Padlet:** https://goo.gl/9w5xUp

Please input the presenting group # and their topic correctly, so that they will be able to make use of your feedback.

Peer groups: **22 March:** G4→G8; G8→G2; G2→G3; G3→G4. **29 March:** G1→G5; G5→G6; G6→G7; G7→G1

Assessment criteria	Description	Very Good ☺ ☺☺	Good ☺ ☺	Need improvement☺
Understanding of topics / key concepts (40%)	1.Good understanding and interpretation of topics/ arguments and underlying *theories* being discussed 2. Making good *references* to support argument 3. Providing suitable *examples* to facilitate understanding	✓		

Guiding Questions:
Are these aspects suitable & what info is missing (task level)? How can the group explain arguments using concepts / provide examples to support arguments (process level)? What further issues can be considered (self-regulation level)?

Group collaboration (20%)	Group members collaborate smoothly during the presentation (This is not equivalent to the total collaboration work by the group)	✓		

Guiding Questions:
Are group members supporting one another (task level)? How can group members collaborate better (process level)? What further thoughts can the group consider in future collaboration (self-regulation level)?

Critical thinking (20%)	Innovative, logical, good reasoning		✓	

Guiding Questions:
How well is the analysis done and are recommendations based on analysis (task level)? How can the analysis/ recommendations be improved (process level)? How can similar analysis be done in the future (self-regulation level)?

Organization and skills of presentation (10%)	1. Well-organized and structured 2. A good flow is witnessed 3. Good presentation skills with clarity, interaction and articulated tone	✓		

Guiding Questions:
Is the presentation well-structured, and can good presentations skills and use of visual aids be observed (task level)? How can the parts be integrated (process level)? What further thoughts can be considered (self-regulation level)?

Discussion: Response to queries and suggestions (10%)	1. Good responses to students' and tutor's queries 2. Well-thought suggestions made to address curriculum problems		✓	

Guiding Questions:
Are discussion questions/ responses to queries appropriate (task level)? How can the group improve effectiveness of the discussion (process level)? How can the group self-evaluate their discussion (self-regulation level)?

Your feedback will go here or on Padlet☺

1. _Nice attitude. I appreciate that your groupmate filmed video for presentation even she can't make it. ✓✓✓_

2. _Nice choice of topic! I have never thought of using IT to teach PE before._

Students' sharing of peer feedback on Padlet prompted by integrated feedback prompts in rubric

Peer Feedback for Group 7 (by Group 5)

Well done:
- inspiring topic, raising our awareness on this issue
- well-organized and structured
- mini-research has been done
- high fluency through out the whole presentation
- interaction with audience

Improvement:
- the ppt could be improved by simplifying the paragraphs into points, and the font size could be larger
- it would be better if you did not jump slides frequently

1 comment

Peer Feedback for Group 3

This is copied from the hand-written peer feedback form from G2:
Topic: Analysis of the Implementation of OLE in HK schools
1.discussed the difficulties and challenges in OLE through a detailed case study --> critical thinking
2. small suggestions --- more reference to support the analysis about the pros and cons of OLE
3. discussion part engages a good interaction between reporters and audience
4. small suggestions --- maybe add some personal experience to convey your opinions towards the issues

Peer Feedback for Group 8

Good--
1. very clear demonstration on the topic of e-learning
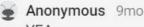2. A lot of solid examples are given to illustrate the points

Improvement--
1. I think some points such as pros and cons of e-learning are overlapped
2. More academic sources and perspectives from professors can be added.

Overall, Well done 😁

♥ 1

6 comments

Anonymous 9mo

Focusing on Task & Process levels

Concrete & constructive

Tina:

- Verbal peer feedback interactions on group presentation:

  - The *1st group responded to the questions raised by the 4th group*. They explained why they designed it and how they designed it in response to the contents of their own group.

- Sharing of peer feedback using Padlet:

  - We did it in the last half hour of the lesson. We put feedback on the screen, and read it.

- **Usefulness** of peer feedback *not using rubric with feedback prompts*:

  - *Each group responds to a different group's feedback, which might be a problem* (of the presentation), such as, "the security management you are talking about is not very clear." *They may do something to fix it.*

  - *They may get some hints after hearing other groups' sharing* when writing individual assignment, it is because the individual assignment is related to the group project.

Tommy:

- *Anonymous* peer feedback on group presentations *using Google Form:*

  - Based on the criteria (in rubrics with feedback prompts), they rated peer group's presentation on a 1-5 scale. The 'other comments' required students to write down comments at three levels

- **Usefulness** of peer feedback *using rubric with feedback prompts :*

  - *Previously the feedback they gave was not so good.* They *focused on practical presentation skills,* such as speaking not so loud or too fast, needing more illustrations etc.

  - The *rubric guided students to pay attention to the contents,* such as whether the presenters have argued correctly on substance, clearly or not, express well or not as well… They would try to think about the group presentations from this angle.

Theme 2 (b)
Usefulness of peer assessment – students' perceptions

- The *quality of peer feedback* determined its usefulness :

- Criteria for **usefulness** of peer feedback: whether peer feedback

  - was *concrete*: focused on their problems or weaknesses, and not only stating strengths

  - could "makes sense" by *giving justifications* to persuade the feedback receiver as convincing

  - showed *empathy and sensitivity* through careful listening and deeper understanding of peers' work

  - provided *concrete suggestions on how to improve*

Theme 2 (b)
Usefulness of peer assessment – students' perceptions

Students' interpretation:

- Some classmates would tell you where lies the problem and what is correct, *but others may just tell you to revise the whole thing*. Then I have no idea what to correct, I think it needs to be more concrete.

- It depends on if the feedback is authentic, then we can see if they have considered about it [our topic] already. If the feedback content is in depth then I think it is good; or *the feedback is bad as it does not telling me the reason for the comment, then I think that is not that useful.*

- And I think *it is better if they can put aside their own opinions when they listen to our opinions, and feel modest to listen, accept or understand me*, because sometimes their opinions are opposite to ours, like in a debate.

Theme 3 (a)
Interpersonal-emotional facet of peer assessment – teachers' perceptions

- Being positive

- *What students write down are mostly neutral or positive, sometimes for further improvements.*

- They will not write things like 'You have done a worse job, really writes so bad'. (Tommy)

- Everyone promotes learning from each other, and it is helpful to improve their individual assignment.

- *Everyone's comment is for improvement purpose or for learning purpose. Thus they wouldn't mind.* (Tina)

- When *giving feedback within a group, everyone knows the others*, and when I get peer comments I know how to adapt my approach accordingly.

- *There is a sense of trust* which will help avoid negative reactions (Tulip)

- Being cautiously positive

- I walked around the classroom and most of them were discussing their outlines with a classmate.

- There is a potential concern though, which is *plagiarism of ideas*. Some students may also have this concern, because the proportion of final homework is 70%. *When I spend a lot of time thinking, the finalised idea is seen by others.*

- Maybe my writing is not strong, and finally my peer's score is higher than mine. (Tricia)
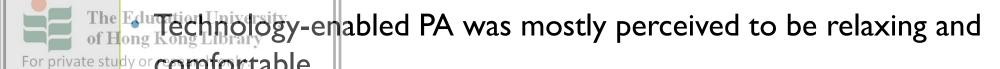
Theme 3 (b)
Interpersonal-emotional facet of peer assessment – students' perceptions

About trust:

- Most of them distrusted their unfamiliar peers as feedback givers

- they believed unfamiliar peers might not be knowledgeable enough to identify problems and provide useful suggestions, or might not be willing to help them.

- Thus they tended to ignore peer feedback given by unfamiliar classmates

- 2c. Conversely, the majority of participants also did not trust themselves to be competent feedback givers

- they did not feel self-confident because they felt they might not have profound knowledge about the topic peers discussed

Theme 3 (b)
Interpersonal-emotional facet of peer assessment – students' perceptions

About being psychological safe

- Students mostly felt safe when receiving feedback from friends /group mates, since they believed in such peers' good will in helping themselves improve.

- They were divided regarding whether they felt safe when receiving feedback from unfamiliar peers

- A few felt relatively safe because peers' feedback was meant to help improvement

- Technology-enabled PA was mostly perceived to be relaxing and comfortable

- The *peer whom you trust will help you sincerely. As for the peers whom you don't trust*, you are not sure if they really want to help you, *they might even write something wrong to mislead you*.

- Normally I will not initiate giving peer feedback… If I know little about the topic, or *if I would feel that even I listen carefully, but in case of embarrassment or misunderstanding, then my ignorance would be seen.* Then with this sentiment, I will not give feedback to peers.

- *I am always nervous about being evaluated by others*, because usually you don't think there is any problem, but when your problems are pointed out by others, you'll be a little bit afraid.

Theme 3 (b)
Interpersonal-emotional facet of peer assessment – students' perceptions

- Because compared to raising up the hands to give comment and everyone is staring at you, using pallets to give comment is not that stressful as long as you are not chosen by the teacher.

- I would say *it's comfortable and safe when giving peer feedback on Padlet*, because if you talk to him face-to-face. he might dislike it. If you talk about it through devices he might accepted more and because he will have such a time to calm down and to consider about the questions or advice you give.

- I am more cautious with peers' anonymous feedback (on Moodle discussion forum).

- As *it's communication in writing, you don't know how the other person feels.* He might be really upset or probably he might not have any emotions, and I would be more nervous and careful.

Conclusions

Conclusions:
Usefulness of peer assessment

TEACHERS

- Perceived peer assessment to be generally useful, esp when guided by feedback prompts

- Thus, teachers' perception of usefulness is mainly based on the cognitive content conveyed by peer feedback comments

STUDENTS

- Perceived peer assessment to be useful based on their own criteria – not much influenced by feedback training

- Students' perception of usefulness is based on the cognitive content as well as their social relationship with the peer feedback giver

Implications:
- Further research into usefulness of peer assessment
- Teachers need to understand students' preferences in peer assessment

Conclusions:
Interpersonal-emotional facet of peer assessment

TEACHERS

- Perceived peer assessment practices to be mostly positive, though Tricia was somehow more cautious

STUDENTS

- Perceived peer assessment to be essentially social and deeply emotional

- Students' perception of usefulness is based on the cognitive content as well as their social relationship with peer feedback giver

Implications:

- Further research into interpersonal-emotional facet in HE contexts, esp in Asia where classroom social dynamics appear to differ from that of Western societies

- It is essential to promote a safe learning environment and a trusting classroom culture

REFERENCES

Harris, L. R., Brown, G. T. L., & Harnett, J. A. (2015). Analysis of New Zealand primary and secondary student peer- and self-assessment comments: Applying Hattie and Timperley's feedback model. *Assessment in Education: Principles, Policy & Practice, 22*(2), 265-281.

Hattie, J. (2012). *Visible learning for teachers: Maximising impact on learning*. London: Routledge.

Kollar, I., & Fischer, F. (2010). Peer assessment as collaborative learning: A cognitive perspective. *Learning and Instruction, 20*(4), 344-348.

Li, H., Xiong, Y., Zang, X., L. Kornhaber, M., Lyu, Y., Chung, K. S., & K. Suen, H. (2016). Peer assessment in the digital age: a meta-analysis comparing peer and teacher ratings. *Assessment & Evaluation in Higher Education, 41*(2), 245-264.

Merry, S., & Orsmond, P. (2018). Peer assessment: the role of relational learning through communities of practice. Studies in Higher Education, 1-11.

Nicol, D., Thomson, A., & Breslin, C. (2014). Rethinking feedback practices in higher education: a peer review perspective. *Assessment & Evaluation in Higher Education, 39*(1), 102-122.

Panadero, E. (2016). Is it safe? Social, interpersonal, and human effects of peer assessment: A review and future directions. In G. T. L. Brown & L. R. Harris (Eds.), *Handbook of Human and Social Conditions in Assessment* (pp. 247-266)). New York: Routledge.

REFERENCES

Rotsaert, T., Panadero, E., Estrada, E., & Schellens, T. (2017). How do students perceive the educational value of peer assessment in relation to its social nature? A survey study in Flanders. *Studies in* Rotsaert, T., Panadero, E., & Schellens, T. (2018). Peer assessment use, its social nature challenges and perceived educational value: A teachers' survey study. *Studies in Educational Evaluation, 59*, 124-132. *Educational Evaluation, 53*, 29-40.

Topping, K.J. (2017). Peer Assessment: Learning by Judging and Discussing the Work of Other Learners. Interdisciplinary Education and Psychology, 1(1).

van Gennip, N. A. E., Segers, M. S. R., & Tillema, H. H. (2009). Peer Assessment for Learning from a Social Perspective: The Influence of Interpersonal Variables and Structural Features. *Educational Research Review, 4(1)*, 41-54.

Yang, L., Sin, K. F., Li, X. Y., Guo, J. S., & Lui, M. (2014). Understanding the power of feedback in education: A validation study of the Feedback Orientation Scale (FOS) in classrooms. *The International Journal of Educational and Psychological Assessment, 16(1)*, 21-46.

Yang, M., & Carless, D. (2013). The feedback triangle and the enhancement of dialogic feedback processes. *Teaching in Higher Education, 18*(3), 285-297.

Thank you for listening

Please contact:
myang@eduhk.hk

Acknowledgement

- This study was a TDG on peer assessment and self assessment (PASA) at the Education University of Hong Kong
- Team members from Faculty of Education and Human Development:

Dr Lan Yang
Dr Hui Xuan Xu
Dr Theodore Lee
Dr Christina Han

Research support by
Dr Bernard Tam
Miss Baoru Song