Course Description

MEDD8909 Use of Assessment for Learning to Develop Critical Thinking of Secondary Students

Course description

Though critical thinking is an important objective in education worldwide and a wide variety of learning and teaching approaches of developing critical thinking have been suggested in rich academic publications, learning designs and assessment tasks which effectively and systematically develop critical thinking are generally limited in secondary schools. By discussing various strategies of assessment for learning as well as reviewing the strengths and weaknesses of current research issues in the field of critical thinking, the course aims to develop an understanding in the principles and strategies to create learning design and assessment task for developing and assessing critical thinking of secondary students more effectively and systematically. The course will be suitable for secondary teachers or educators who have an interest to develop an understanding of creating and evaluating learning design for developing critical thinking for Grade 7-12 students. The related assessment literacy and practices are discussed in the course, especially those of assessment for learning.

Course objectives

By the end of this course, students should:

- have a general understanding of the strengths and weaknesses of a) the current research issues in the field of critical thinking and b) the suggestions on learning design for developing critical thinking in order to synthesize the points should be paid attention to when creating the related learning design;
- understand the principles and strategies to create learning design and assessment task for developing and assessing critical thinking of students more effectively and systematically, especially those of assessment for learning; and
- practise and extend their knowledge and teaching skills (e.g. develop their ability to evaluate learning design for developing critical thinking by applying the principles and strategies learnt, especially those of assessment for learning).

Course learning outcomes		Aligned programme learning outcomes (PLOs)
1.	Review on research articles about critical thinking to understand current research issues of this field to learn the points should be paid attention to while creating learning design and assessment task for developing and assessing critical thinking of students.	PLOs 1, 2
2.	Create learning design and assessment task for developing and assessing critical thinking of students more effectively and systematically by applying the principles and strategies learnt, especially those of assessment for learning	PLOs 3, 5
3.	Practise and extend their knowledge and teaching skills (e.g. develop their ability to implement and evaluate learning design and assessment task for developing and assessing critical thinking by applying the principles and strategies learnt, especially those of assessment for learning)	PLOs 3, 5

Course assessment methods

- Group presentation and paper
- Individual essay
- In-class and out-of-class participation

Course content and topics

- Introduction to the course, critical thinking, assessment for learning and inquiry-based learning
- Difficulties and insights of creating learning design for developing and assessing critical thinking of students
- Use of rubric in assessment for learning
- Principles and strategies of assessment for learning (I)
- Principles and strategies of assessment for learning (II)
- Learning designs of using assessment for learning to develop and assess critical thinking of students as well as preparation for group presentations
- Assessment literacy of teachers and its impact on teaching critical thinking
- Course conclusion and group presentation of learning design for developing and assessing critical thinking of students

Required / recommended readings and online materials

- 1. Abrami, P.C., Bernard, R.M., Borokhovski, E., Wade, A., Surkes, M., Tamim, R., & Zhang, D. A. (2008). Instructional interventions affecting critical thinking skills and dispositions: A stage one meta-analysis. *Review of Educational Research*, 78(4), 1102-1134.
- 2. Berry, R. (2008). Assessment for Learning. Hong Kong University Press.
- 3. Costa, A.L. & Kallick, B. (2008). *Learning and leading with habits of mind: 16 essential characteristics for success.* Association for Supervision and Curriculum Development.
- 4. Chappuis, J. (2015). Seven strategies of assessment for learning. Pearson.
- 5. Facione, P. & Gittens, C. A. (2016). *Think critically*. Pearson.
- 6. Fung, D. C. L. & Liang, T. W. (2019). Fostering critical thinking through collaborative group work: insights from Hong Kong. Springer.
- 7. Gao, X., Li, P., Shen, J., & Sun, H. (2020). Reviewing assessment of student learning in interdisciplinary STEM education. *International Journal of STEM Education*, 7(24).
- 8. Ku, K. Y. L. (2009). Assessing students' critical thinking performance: Urging for measurements using multi-response format. *Thinking Skills and Creativity*, *4*, 70-76.
- 9. Ng, C. S. L. (2006). Approaches to evaluate critical thinking dispositions. Paper presented in *APERA Conference* 2006, Hong Kong.
- 10. Popham, W. J. (2018). Assessment literacy for educators in a hurry. Association for Supervision and Curriculum Development.
- 11. Tse, A.W.C., Yuen, A.H.K. &. Fung, D.C.L. (2019). Model-guided instruction for developing students' key affective dimensions of critical thinking in a computer-supported collaborative learning context. *Proceedings of the Tenth Global Chinese Conference on Inquiry Learning: Innovations and Applications (GCCIL2019)*. Beijing Normal University.

Other additional course information

Nil