

University of Groningen

Feedback during clerkships: the role of culture

Suhoyo, Yoyo

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2018

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Suhoyo, Y. (2018). *Feedback during clerkships: the role of culture*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Chapter 7
General Discussion

In this era of advances in information and communication technology, many studies and development in medical education have been shared and published globally through web based media –website, webinar, online journal–, printed journals and conferences. All medical schools over the whole world can access the information regarding educational principles easily and can take part in further developments and publications. This trend stimulated development of international standards for medical education.¹ Many medical schools around the world try to get international acknowledgement by meeting and achieving international standards. However, the existence of cultural differences in teaching and learning between countries in medical education might hamper these efforts.²⁻⁸ The question arises whether and how cultural differences will influence the implementation of educational principles and international standards and how to deal with this challenge.

Providing effective feedback during clerkships is an example of an educational principle that is recommended in international standards. Although the power of feedback for students' learning and performance has been acknowledged,⁹⁻¹⁹ and the influence of culture in medical education has been realized,²⁻⁸ not many studies in the field of medical education provide empirical evidence about the role of culture in giving feedback during clerkships. Five studies in this thesis investigated and explored the role of culture in feedback processes. We focused on cultural differences in the perceived learning value of feedback, the implementation of the mini-CEX to improve feedback during clerkship, the acceptance of the mini-CEX, and the influence of characteristics of effective feedback facilitated by the mini-CEX. The outcomes of the five studies in this thesis add to the existent body of feedback literature in medical education.

Main findings

From the replication of a Dutch study in Indonesia, we learned that feedback processes are influenced by culture (Chapter 2). Although the Indonesian and the Dutch students perceived feedback during clerkships as equally instructive, we found significant differences in feedback processes and in underlying factors influencing the perceived instructiveness of feedback. In Indonesia, a country with large power distance and low individualism, students received most feedback from residents, they were often directly observed and the supervisor initiated

most feedback moments. In the Netherlands, a country with small power distance and high individualism, students received most feedback from specialists, were less observed and about half of the feedback moments were based on a joint initiative. However, while the Dutch students perceived feedback from residents and specialists as equally instructive, feedback based on direct observation as being more useful, and feedback initiated by the student or arising from joint initiative as more instructive, the Indonesian students perceived feedback from specialists as more instructive, feedback based on observed and non-observed performance equally useful, and feedback arising from a joint initiative as most instructive. By using Hofstede model of culture as framework, these differences can be explained by the Power Distance and Individualism dimensions (see later on). We concluded that one model of feedback does not necessarily translate to another culture.

Literature mainly focuses on individual feedback because it comes predominantly from authors from countries with individualistic cultures. We investigated, however, in a collectivistic culture how students perceive the learning value of individual as well as of group feedback during clerkships. We further analyzed the focus of feedback and how often the requirements for effective feedback (as defined for individual feedback) were met (Chapter 3). We found that the feedback-principles that have been described in literature and formulated from a rather individualistic perspective, are not fully suitable for the needs of collectivistic cultures. The degree to which group feedback satisfies the requirements for effective feedback and the high-perceived learning value of group feedback in collectivistic societies underline the importance of group feedback in these cultures.

To meet international standards, and at the same time to improve feedback processes during clerkships, we implemented the mini-CEX into the existing clerkship program of two departments of our Indonesian university hospital: Internal Medicine and Neurology. We applied a careful procedure in which we took culture and local context into account (Chapter 4). We made a series of decisions to reduce tensions between the preconditions for applying the mini-CEX and the characteristics of the Indonesian culture, while keeping the underlying principles of the mini-CEX intact. For example we decided that only medical specialists were allowed to use mini-CEX, because, for learning during clerkships, high power distance implies that specialists are perceived as experts

in the field so Furthermore the implementation of the mini-CEX required a shift from group feedback, which is common in cultures with low individualism, to personal feedback.

An assessment method can only be effective when it is acceptable for all important stakeholder groups. Therefore, we explored Indonesian students' and specialists' appreciation of the mini-CEX in Indonesian clerkships. Both groups appreciated the practicability and were positive about the general impact of the mini-CEX on learning and about its impact on professional development. (Chapter 5).

The structure of the mini-CEX includes characteristics of feedback as recommended in literature. We investigated the influence of five feedback characteristics to the perceived learning value of feedback in Indonesia, a country that is classified as low on individualism and high on power distance (chapter 6). We found a positive influence of four feedback characteristics – 'mentioning students' weaknesses', 'comparing students' performance to a standard', 'explaining or demonstrating the correct performance', and 'preparing an action plan with the student' –, however, 'mentioning strengths' did not influence Indonesian students' perceived learning value of feedback. Therefore, the effectiveness of some feedback characteristics seems to depend on the prevailing culture of countries, in particular on the levels of individualism and power distance.

Overall focus of the thesis

In an era where homogenous and global models of education are promoted, the question arises whether educational principles and educational practices, feedback being one of these, that are developed in certain cultures can be implemented in other cultures.

International standards recommend feedback as part of educational principles and practice for optimizing students learning.¹ Some characteristics of effective feedback and methods to improve feedback that have been identified and suggested are:^{9,11,15,17,19-27}

- the feedback provider should be an expert and credible person;
- feedback should be based on direct observation;
- students should be told what they have done well;

- students should be made aware of aspects of their performance that need to be improved;
- students' performance should be compared against a standard, such as a professional judgment, a local standard or existing guidelines;
- an explanation of the correct performance – what, how and why a task should be performed – should be provided to students to equip them with sufficient information to correct their errors;
- the feedback provider should invite students to make a plan of action to improve their performance and discuss it

However, with reference to Hofstede's model of cultural dimensions, these principles are mostly developed and founded in countries which are classified high on the cultural dimension individualism and low on power distance.²⁸ Whether these principles can be easily implemented in countries that are classified low on individualism and high on power distance, such as Indonesia, is a challenging question. Therefore, more empirical evidence on this matter, for example from Indonesia, needs to be added to the existent body of feedback literature.

The understanding of cultural differences in feedback processes may help medical schools all over the world to improve the quality of feedback to their students. Using the mini-CEX to improve the quality of feedback during clerkships²⁹⁻³¹ implies that individual students need direct contact with their clinical teachers to obtain feedback.³⁰⁻³² In individualistic and low power distance countries, like the United States (US) where the mini-CEX was originally developed,³³ the implementation of the mini-CEX may be not a problem. However, for countries with collectivistic and large power distance cultures like Indonesia, the implementation of the mini-CEX requires a shift in the usual pattern of teacher-student interaction in feedback processes. For instance, specialists, as teachers in the clinical setting should provide more often feedback to individual students instead of to a group.²⁸ Therefore, studies how to deal with this cultural challenges are needed to increase the acceptability and applicability of the mini-CEX as method to improve the quality of feedback during clerkships in different cultural contexts.

Individualism and power distance in feedback processes

Feedback plays an important role in facilitating the learning process in clerkships.^{9,17,19,22,24,25,27} The interaction patterns how clinical teachers provide feedback to students, and the social position between teachers and students are deeply rooted in the culture of a society.^{28,34} It is the cultural dimensions of individualism and power distance which are at stake here.

Indonesia is a country which is classified high on the cultural dimension power distance and low on the dimension individualism.²⁸ In countries with a large power distance, the interaction pattern is more hierarchical; therefore, most individual interactions are with persons whose social position is closest to them. This explains why Indonesian students receive most feedback from residents. Students, however, perceive feedback from specialist as more instructive. This outcome could also be explained by power distance, the larger the power distance, the more respect students have for the expertise of teachers and the higher the perceived instructiveness is. In the Netherlands, a country classified as low on power distance, students receive most feedback from specialists and the Dutch students perceive feedback from residents and specialists as equally instructive. Due to the high power distance and group culture, Indonesian specialists are used to provide more often group feedback than individual feedback. In a group culture, students are expected to maintain harmony and fit with the group while in an individual culture students are expected to be unique and independent. Also, in a group culture students are afraid of failing and losing face while in an individual culture students need to gain an impression of their abilities.^{28,34,35} These differences imply that one model of feedback is not necessarily effective in another culture.

Studies on the effectiveness of feedback in the clinical work place mostly focus on individual feedback to students. However, there are cultures in which group feedback is a common educational practice.³⁶ We found that in Indonesia, group feedback was more often provided than individual feedback and that the learning value of group feedback was perceived higher during clerkships. Furthermore it appeared from our study that in Indonesia, four conditions for effective feedback – i.e. the recognition of observable competencies (except physical examination), the use of standards and the provision of a plan of action to improve performance

- were more often met in group feedback than in individual feedback. Correcting performance deficiencies was the only characteristic that was found more often in individual feedback, and it offers more opportunities to be specific. This outcome can be explained by the fact that in collectivist cultures, the expectation of the teacher is important for learning, and students expect teachers to determine their learning paths.^{28,34,35} Feedback based on the four conditions mentioned above, is probably perceived as an outline from the specialist that needs to be followed and achieved. Students might perceive mentioning strengths, however, as an act of kindness because in a collectivist culture there is tendency toward modesty; it values not standing out but fitting in with others.³⁵ Therefore, mentioning strengths may have little learning value for students.

We concluded that in a collectivist culture, group feedback has the role to maintain harmony and integration in the group which is the main characteristic of a collectivist culture.^{28,34,35} The group will control and regulate personal aims to meet the goal of their groups. We conclude that the congruence between culture and type of feedback is essential for the effectiveness of the feedback.

Implementation of the mini-cex to improve the quality of feedback

To meet international standards, we implemented the mini-CEX that was recommended in literature as an effective method to improve feedback in the clinical setting²⁹⁻³¹ and self-evidently, we met some cultural challenges with this implementation. First, Indonesian students receive most individual feedback from residents instead of specialists. To shift to individual feedback from specialists means a major change in the interaction patterns between supervising specialists and students. Second, direct observation might – but should not by all means - occur in front of other students and this may make students afraid of losing their face. Third, formerly, group feedback from specialists was the most common practice during clerkships. Therefore, the shift from group feedback to individual feedback was also a major change for specialists. To optimally implement the mini-CEX, retaining the strengths and dealing optimally with the challenges of the mini-CEX, we developed thorough implementation strategies. We decided to give clear ‘directives’ on how the mini-CEX should be implemented. For instance, the examiner has to be a specialist, and observation and feedback have to be conducted individually. Furthermore, we tried to take

our cultural context into account by keeping the new assessment programme lean and feasible. Detailed strategies choices have been explained in **chapter 4**. The acceptance of assessment formats, such as the mini-CEX, is essential for its effectiveness.³⁷⁻³⁹ Several studies revealed high satisfaction with the mini-CEX,^{30,40-47} but again most of these studies have been conducted in countries with a culture similar to the culture in which the mini-CEX was developed, namely individualistic and small power distance countries. We found that by carefully taking into account culture, local context and demands, and using systematic and directive steps, the mini-CEX could be implemented as intended in a collectivistic country high on power distance. The high satisfaction scores of Indonesian specialists and students with the mini-CEX support our conclusions that the implementation process was successful. This finding emphasizes that culture is not necessarily an obstacle when implementing educational principles stemming from countries with a different culture. We just need to take into account the characteristics of the local culture.

Methodological considerations

Currently, there is a growing awareness in the medical education society of cultural differences in medical education. A strength of this thesis is that all studies focus on the existence of cultural differences and how these relate to educational practise, in this case providing feedback. Feedback is one of the topics in medical education literature that is believed to be influenced by culture. There are only a few studies discussing the cultural differences in feedback processes during clerkships. By using Hofstede's model of cultural differences, this thesis provides insight in how cultural differences influence feedback during clerkships. The replication of a Dutch study in Indonesia revealed how cultural differences influence feedback processes during clerkships. In this thesis, we created a possible design in which cultural differences can be studied.⁴⁸

The second strength is that this thesis gives examples how to deal with cultural differences when implementing new educational principles. We explained how the mini-CEX can be successfully implemented by relating the structure and the recommended characteristics of feedback of the mini-CEX to cultural aspects. We identified cultural aspects that may inhibit the implementation process and the effectiveness of feedback. We showed strategies how to implement an

educational principle developed in a different culture as effective as possible. Therefore, in the era of standardization of medical education at international level, the studies of this dissertation add to the dispute on how to implement educational principles stemming from countries with different cultures.

There are also some limitations. The first limitation of this thesis concerns its generalizability. All studies are conducted in one medical school in Indonesia. There is a possibility that different regions of this country vary in (aspects of) culture.⁴⁹ However, national culture is reflected in the subcultures embedded in it.⁵⁰ Therefore, we believe that the results of the studies in this thesis can be generalized in Indonesia. However, replication studies are needed to support this premise. In addition, we do not know whether our results also apply to other collectivist and large power distance countries since such countries may also display differences with the Indonesian culture. This is why one should be cautious to generalise our results to other collectivistic cultures high on power distance without further replication studies.

The second limitation of this thesis is that all studies on the learning value of feedback during clerkships are based on students' perceptions. Actual learning of students during clerkships was not measured. However, a positive perception of learning value is conducive for a effective learning processes.³⁷ As a corollary, positive perceptions of the learning value of feedback can be expected to improve learning and future performance. More research is needed to unravel the impact of feedback characteristics on students' actual learning.

Practical implications

Feedback, being one of the hallmarks of medical education can be used effectively in different cultures but principles cannot be transferred from one culture to another without appropriate adjustments. This may hold for other elements in education as well. Feedback is only one principle in medical education that could depend on culture. For all educational principles, which are based on the interaction of teacher and student, cultural differences have to be considered because the patterns of teacher-student interaction are rooted into the culture of each country. Examples are reflection, supervision, self directed learning, small group discussion. More studies on how the implementation of educational principles that do not directly match with local culture can be facilitated are

needed. Improving medical education by meeting international standards can not only be done by just adopting and implementing educational principles that have been proven successful in other countries. Managing the innovation process carefully and taking culture and local context into account increases the chances that educational principles can be implemented without changing the underlying learning principles.

This thesis can be used to develop the principles of feedback in clinical education further. We also hope this thesis can inspire and encourage other medical educationalist to explore more the cultural differences in medical education.

References

1. World Federation of Medical Education (WFME). Basic Medical Education. WFME Global Standards for Quality Improvement. New Edition [Internet]. 2012. Available from: <http://wfme.org/standards/bme/78-new-version-2012-qualityimprovement-in-basic-medical-education-english/file>. Accessed 15 May 2013.
2. Klimidis S, Minas IH, Stuart GW, Hayes C. Cultural diversity in Australian medical education. *Med Educ* 1997;31:58–66
3. Wear D. Asian/Pacific Islander women in medical education: Personal and professional challenges. *Teach Learn Med* 2000;12:156–163
4. Jippes M, Majoor GD. Influence of national culture on the adoption of integrated and problem-based curricula in Europe. *Med Educ* 2008;42:279–285
5. Mitchell BS, Xu Q, Jin L, Patten D, Gouldsborough I. A cross-cultural comparison of anatomy learning: Learning styles and strategies. *Anat Sci Educ* 2009;2:49–60
6. Tavakol M, Dennick R. Are Asian international medical students just rote learners? *Adv Health Sci Educ* 2010;15:369–377.
7. Wong AK. Culture in medical education: Comparing a Thai and a Canadian residency programme. *Med Educ* 2011;45:1209–1219.
8. Chandratilake M, McAleer S, Gibson J. Cultural similarities and differences in medical professionalism: A multi-region study. *Med Educ* 2012;46:257–266
9. Ende J. Feedback in clinical medical education. *JAMA* 1983;250:777–81.
10. Sachdeva AK. Use of Effective Feedback to Facilitate Adult Learning, *J Cancer Educ* 1996;11 (2):106-118
11. Hewson MG, Little ML. Giving feedback in medical education: Verification of recommended techniques. *J Gen Intern Med* 1998;13:111–6
12. Kilminster SM, Jolly BC. Effective supervision in clinical practice settings: a literature review. *Med Educ* 2000;34:827-840
13. Branch jrWT, Paranjape A. Feedback and Reflection: Teaching Methods for Clinical Settings, *Acad Med*, 2002;77:1185–1188.
14. Hattie J, Timperley H. The Power of Feedback. *Rev Educ Res*. 2007;77:81–112.

15. Veloski J, Boex JR, Grasberger MJ, Evans A, Wolfson DB. Systematic review of the literature on assessment, feedback and physicians' clinical performance: BEME Guide No. 7. *Med Teach* 2006;**28**:117–28
16. Kilminster S, Cottrell D, Grant J, Jolly B. AMEE Guide No. 27: Effective educational and clinical supervision. *Med Teach* 2007;**29**:2–19
17. Nicholson S, Cook V, Naish J, Boursicot K. Feedback: Its importance in developing medical student's clinical practice. *Clin Teach* 2008;**5**:163–6
18. Ramani S, Leinster S. AMEE Guide no. 34: Teaching in the clinical environment. *Med Teach* 2008;**30**:347–364
19. Van de Ridder JMM, Stokking KM, McGaghie WC, ten Cate, OThJ. What is feedback in clinical education? *Med Educ.* 2008;**42**:189–197.
20. Gordon J. One to one teaching and feedback. *BMJ* 2003;**326**:543–5
21. Daelmans HEM, Hoogenboom RJI, Donker AJM, Scherpbier AJJA, Stehouwer CDA, Van Der Vleuten CPM. Effectiveness of clinical rotations as a learning environment for achieving competences. *Med Teach* 2004;**26**(4):305–312
22. Cantillon P, Sargeant J. Giving feedback in clinical settings. *BMJ* 2008;**337**:a1961
23. Shute VJ. Focus on formative feedback. *Rev Educ Res* 2008;**78**:153–89
24. Van Hell EA, Kuks JBM, Raat AN, van Lohuizen MT, Cohen-Schotanus J. Instructiveness of feedback during clerkships: Influence of supervisor, observation and student initiative. *Med Teach* 2009;**31**:45–50
25. Archer J. State of the science in health professional education: Effective feedback. *Med Educ* 2010;**44**:101–8
26. Norcini JJ. The power of feedback. *Med Educ* 2010;**44**:16–7
27. Ramani S, Krackov SK. Twelve tips for giving feedback effectively in the clinical environment. *Med Teach* 2012;**34**:787–91
28. Hofstede G. *Culture's Consequences, Comparing Values, Behaviors, Institutions, and Organizations across Nations*. Newbury Park, CA: Sage Publications 2001
29. Hauer KE. Enhancing feedback to students using the mini-CEX (Clinical Evaluation Exercise). *Acad Med* 2000;**75**:524
30. Hill F, Kendall K. Adopting and adapting the mini-CEX as an undergraduate assessment and learning tool. *Clin Teach* 2007;**4**:244–8
31. Norcini JJ, Burch V. Workplace-based assessment as an educational tool: AMEE Guide No. 31. *Med Teach* 2007;**29**:855–71

-
32. Norcini JJ. The Mini Clinical Evaluation Exercise (mini-CEX). *Clin Teach* 2005;**2**:25–30
 33. Norcini JJ, Blank LL, Arnold GK, Kimball HR. The mini-CEX (clinical evaluation exercise): a preliminary investigation. *Ann Intern Med* 1995;**123**:795–9.
 34. Hofstede G. Cultural difference in teaching and learning. *Int J Intercult Rel* 1986;**10**:301–32.
 35. Markus HR, Kitayama S. Culture and the self: Implication for cognition, emotion, and motivation. *Psychol Rev* 1991;**98**:224–53
 36. Sully de Luque MF, Sommer SM. The impact of culture on feedback seeking behavior: an integrated model and propositions. *Acad Manage Rev*. 2000;**25**:829–849
 37. Kirkpatrick D. Great ideas revisited: Revisiting Kirkpatrick’s four-level model. *Train Dev* 1996;**50**:54–9
 38. Van Der Vleuten CPM. The assessment of professional competence: developments, research and practical implications. *Adv Health Sci Educ Theory Pract* 1996;**1**(1):41–67
 39. Sternberg RJ. Culture, instruction, and assessment. *Comparative Education* 2007;**43**:5–22
 40. Nair BR, Alexander HG, McGrath BP, Parvathy MS, Kilsby EC, Wenzel J, Frank IB, Pachev GS, Page GG. The mini clinical evaluation exercise (mini-CEX) for assessing clinical performance of international medical graduates. *Med J Aust*. 2008;**189**(3):159–61.
 41. Wilkinson J, Crossley J, Wragg A, Mills P, Cowan G, Wade W. Implementing workplace-based assessment across the medical specialties in the United Kingdom. *Med Educ*. 2008;**42**:364–73
 42. Malhotra S, Hatala R, Courneya CA. Internal medicine residents’ perceptions of the Mini-Clinical Evaluation Exercise. *Med Teach* 2008;**30**(4):414–419.
 43. Weller JM, Jolly B, Misur MP, Merry AF, Jones A, Crossley JM, Pedersen K, Smith K. Mini-clinical evaluation exercise in anaesthesia training. *British Journal of Anaesthesia* 2009;**102**(5):633–41.
 44. Weller JM, Jones A, Merry AF, Jolly B, Saunders D. Investigation of trainee and specialist reactions to the mini-Clinical Evaluation Exercise in anaesthesia: implications for implementation. *British journal of anaesthesia* 2009;**103**(4):524–30.

45. Hill F, Kendall K, Galbraith K, Crossley J. Implementing the undergraduate mini-CEX: a tailored approach at Southampton University. *Med Educ* 2009;43(4):326-334.
46. Alves de Lima AE, Conde D, Aldunate L, van der Vleuten CPM. Teachers' experiences of the role and function of the mini clinical evaluation exercise in post-graduate training. *Int J Med Educ* 2010;1:68-73.
47. Tokode OM, Dennick R. A qualitative study of foundation doctors' experiences with mini-CEX in the UK. *Int J Med Educ* 2013;4:83-92
48. Artino AR Jr. Why don't we conduct replication studies in medical education? *Med Educ* 2013;47(7):746-747
49. Hofstede G, de Hilal AVG, Malvezzi S, Tanure B, Vinken H. Comparing Regional Cultures Within a Country: Lessons from Brazil. *Journal of Cross-Cultural Psychology (JCCP)* 2010;41:336-52
50. Bik OPG. *The Behavior of Assurance Professionals: A Cross-cultural Perspective*. [PhD thesis University of Groningen]. Delft: Eburon Academic Publisher; 2010