

Integrating workplace learning, assessment and supervision in health care education

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Valorisation



RELEVANCE

The research presented in this doctoral thesis addresses topics about workplace learning in health care education. It provides new perspectives on continuous workplace learning in the context of a discontinuous workplace learning environment. The problem of discontinuity in the field of workplace learning is threefold: many educational programmes include short periods of training in different disciplines; learning processes are often separated from assessment processes; and it is difficult to achieve continuity in supervision, both within and across workplaces. The question therefore is how workplace learning can be organised in such a way that ongoing competency development is optimally stimulated throughout the workplace learning curriculum and that learners are prepared for lifelong learning. The relevance of this research is explained by the answers to the three research questions that were put forward in this thesis.

To begin with, we have shown that it is possible to integrate the numerous components of workplace learning into a user-friendly and evidence-based workplace learning model: the 'Integrated learning Assessment and Supervision Competency Framework'. The analogy of a 'Lifelong Competence Journey' is used to denote this model, which embraces the keywords 'integration', 'continuity' and 'collaboration'. The model moreover aims at an integration of competencies, learning (reflection and feedback), assessment (self-, formative and summative assessment), and supervision (supervision of performances and supervision of the continuous learning process). An important component of the model is the learning and assessment instrument. The model also integrates the stakeholders-component. More specifically, it integrates the perspectives of the different stakeholders who work together at the workplace: students, supervisors and assessors (from the workplace and educational institution). Finally, the workplace learning model is featured by a programmatic view on the workplace learning curriculum and a focus on the essential conditions to support continuous workplace learning.

We hope that this integrated workplace learning model will inspire professionals who are involved with workplace learning in health care. In general, the workplace learning literature is complex and often discusses single components of workplace learning without making a bridge to the continuity of workplace learning. Although there is a general consensus among health care educators to build programmes on competency frameworks, evidence-based models supporting the translation from these theory-based competency frameworks into clinical practice are scarce. Competency-based education arose from the need to attune education more to the labour market. Nowadays, some decennia later, it still seems difficult to organise competency-based

education in clinical practice. Therefore, further research is necessary to help realise the original goal of competency-based education. The designers of the Integrated Learning, Assessment, and Supervision Competency Framework hope to be able to contribute to this research need. Finally, requirements for accreditation cause benchmarking of programmes to become more and more important. Our research findings confirm the need for standardised definitions and frameworks in the field of workplace learning. We believe that standardisation facilitates the exchange of study results and good practices between institutions.

Second, we present in this thesis the results of the impact of an integrated model on the development of a continuous self-directed learning process. The results confirm the importance of situating learning on a cognitive continuum. Research in this thesis makes a clear distinction between reflection and feedback on single performances (self-monitoring) on the one hand, and reflection and feedback on competency-development (self-assessment) on the other. The results show that students prefer immediate reflection on performance because it allows them to remediate their performances at once. New in this thesis is the finding that graduates appear to have different views on the learning effects of the writing activity that made them reflect on their competency-development. As opposed to undergraduates, graduates generally perceived a positive effect on their self-assessment, self-confidence and continuous growth. Another new finding is that reflective learning activities with different educational goals require different educational conditions to be fulfilled. These findings closely match the current tendency to pay more attention to the lifelong learning continuum. The strict distinction between undergraduate, postgraduate, and residency workplace learning might hinder continuous workplace learning. Also in international perspective, this distinction is somewhat artificial because of the differences in the length of educational programmes, the levels of diplomas, the competencies of health care professionals, et cetera. Further research will demonstrate to what extent the views of an undergraduate (midwifery) training programme contribute to research in the field of postgraduate, residency, and lifelong learning (CPD, Continuous Professional Development).

Our research on the self-directed learning continuum emphasises the key role supervisors have in a workplace learning design. There's a certain complexity to establishing supervision in the ambit of workplace learning in health care. Health care organisations are usually seen as unstructured learning environments where many professionals work together for the joint purpose of providing care to the patient. It's generally recognised that professionals have a dual task of providing health care and education at the same time. Health care organisations pay great attention to students and health care professionals, in turn, are motivated to supervise their students. Yet, they can't always

guarantee that the essential conditions for fostering a continuous learning process (e.g. sufficient time for dialogue) will be met. Our research performed on students and supervisors of the midwifery training programme has shown that the educational design can be adjusted so as to make the educational instructions also practically feasible for supervisors in the busy reality of the workplace. This thesis has sought to stir up the dialogue between health care providers and educational organisations in the field of workplace learning. This dialogue is not only necessary on a national, but also on an international level. As students increasingly receive part of their training at foreign workplaces, an international outlook on the topic becomes indispensable in order to ensure that the learning process (reflection and feedback) is continued for the entire lifetime of a clinical training programme.

In the third place, this thesis integrated learning and assessment into the workplace learning model. It advocates the incorporation of an integrated learning and assessment continuum in the design. The results indicate that there's a tension between the continuous collection of written information for learning-purposes on the one hand, and the use of this information for assessment-purposes on the other. To overcome this tension, it was argued that learning and assessment should be embedded in a relationship of trust between the learner and supervisors/assessors. Trust is easily gained when the clinical placements last longer. New in this thesis is that it discerns different roles for both supervision and assessment. This division of roles stems from several differences in focus: for one, there's a focus on single performances, but also a focus on competency development; then there's a focus on assessment of individual competencies, which is complemented by a focus on assessment of 'professional competence'. Educators in health care are responsible for ensuring that graduates have the competency to provide safe care. Therefore, it is important that the summative decision to declare the student 'professionally competent' is made by an expert jury that takes into account the student's continuous learning process. The results in this thesis underscore the complexity of summative assessment. The findings fit in closely with current tendencies to focus on longitudinal learning projects, remediation programmes, assessment by judgement, and programmatic assessment.

TARGET GROUPS

Policymakers in health care and education

Workplace learning crosses two key policy domains: health care and education. Legislation in the field of health care affects education and vice versa. When scrutinising

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competency-based education, their mutual influence becomes all the more apparent. At the same time, however, it becomes clear that both worlds sometimes function in completely different ways. Health care educators design professional competency frameworks and curricula on the basis of legislation or guidelines from professional organisations. The purpose of these competency frameworks is to increase transparency of degrees, and to explicitly lay down professional competencies and training requirements. This thesis shows the complexity of translating competency frameworks into practice. It shows the complexity of developing, monitoring and assessing competencies in the clinical workplace. The development and implementation of workplace learning designs require specific scientific and practical expertise, as well as sufficient resources for the application of the theoretical frameworks in daily practice. Sound management and sufficient resources to achieve this will optimise the quality of education and health care, encourage exchanges of good practices, and warrant the achievement of policy objectives.

Management in health care and education

Managers of universities and health care institutions are increasingly subject to highly demanding accreditation systems. This thesis shows how empirical research contributes to a critical reflection on one's own practice. The results provide insights that are helpful in taking evidence-based decisions when designing workplace learning.

As mentioned before, workplace learning crosses both areas: health care and education. From this perspective, it seems important to further encourage joint research and to share good practices. The perception studies with students and supervisors in this thesis are an example of this partnership.

Partnerships between universities and health care institutions are also important in terms of professional training. The results in this thesis confirm the importance of training for the creation of a culture of reflection and feedback in the workplace community. This culture stimulates a positive learning climate featured by dialogue and collaboration. This culture is not only important for students' learning but also for the lifelong development of a professional team. Future research will increasingly focus on collaborative learning theories in a community of practice.

Curriculum managers

Workplace learning is organised in many different ways. This is one of the reasons why the literature in the field of workplace learning is so complex. Curriculum managers are

responsible for designing workplace learning in an educational programme. It is evident that they have to take into account the context in which education and health care is organised. Yet, it is also important that they implement current generic research findings in their design. This thesis focusses the attention on continuous competency development in a discontinuous learning environment. It ties in nicely with the existing literature that calls for more attention to the aspect of 'continuity' in future designs of workplace learning.

Teachers

The term 'self-directed learning' can be misleading as it implies that the student learns completely independently. The opposite is true, as is shown in this thesis that explored the concept of self-directed learning in more detail. Self-directed learning requires an active, self-directed attitude of the student who can make an appeal to professional guidance. The results of our studies show that the integration of learning and assessment impacts positively on self-directed learning. Our findings confirm once again that supervisors play a crucial role in the development of learner competencies. This is the reason why the component 'supervision' was incorporated in the workplace learning model. The model introduces a clear conceptualisation of roles. It is of crucial importance that both teachers from the universities and the health care institutions previously agree on their supervisory and assessment roles in order to be able to sustain continuous supervision. A clear enunciation of roles will also render expectations and responsibilities more transparent to students and teachers.

Students

This thesis shows that educational research with students is rewarding. The studies combine quantitative and qualitative research. One study uses cross-sectional and retrospective-longitudinal data. Combining these results leads to new insights. From a survey held among students it resulted that they generally favoured more time for dialogue to reflection on paper. Salient, moreover, was the finding that students are not unanimously positive about the summative judgement of their performance at the end of the internships, an observation that does not quite match the significant correlations between reflection and performance scores that were found in another study. Therefore, further research on summative assessment is necessary.

ACTIVITIES

This thesis contains empirical studies conducted in the context of one single Midwifery programme in Ghent (Belgium), a training programme that received a special quality label for the implementation of competency-based education in 2008 (NVAO, Netherlands-Vlaamse Accreditatieorganisatie / Accreditation Organisation of the Netherlands and Flanders). The challenge for the future is to explore the generalisability of the results in other health care programmes, both at home and abroad. All studies were presented at one or more international conferences on medical and midwifery education. All of them were also published in journals of different disciplines: midwifery, medical and nursing journals. All activities associated with this thesis, except for the mentor trainings, are listed below. The first presentations of the model at international educational congresses (ICM, June 2014; EAPRIL, November 2014) were well received. The conceptual model includes a broad framework in the field of workplace learning, creating the possibility to identify concepts and exchange good practices.

Publications

Embo M, Driessen E, Valcke M, van der Vleuten CPM. Integrating Learning, Assessment and Supervision in a Competency Framework for Clinical Workplace Education. *Nurse Education Today* 2014; <http://dx.doi.org/10.1016/j.nedt.2014.11.022>.

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Embo M. De vroedvrouw staat voor kwaliteit en veilige zorgverlening! [The midwife is responsible to provide high quality and safe care!]. *Tijdschrift voor vroedvrouwen* 2011;17(3):151-155. (Publication in Dutch)

Embo MP, Driessen EW, Valcke M, Van der Vleuten CPM. Assessment and feedback to facilitate self-directed learning in clinical practice of Midwifery students. *Medical Teacher* 2010;32(7):e263-269.

Embo M. Bijzonder Kwaliteitskenmerk Bachelor in de vroedkunde: de competentie-mozaïek van de vroedvrouw als sturende motor van het onderwijsleerproces. [Special Quality label Bachelor in Midwifery: the competency mosaic of the Midwife as the driving motor of the learning process]. *Magazine Kwaliteitszorg in het Hoger onderwijs (Q&A)*. 2010. Via website NVAO <http://www.qazine.eu/article-detail/bijzonder-kwaliteitskenmerk-bachelor-in-de-vroedkunde/12>. (Publication in Dutch)

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Embo M, Lauwers L, Van den Hove T, Vyt A. Wanneer is een vroedvrouw competent voor het werkveld? [When is a midwife fit for practice?]. *Tijdschrift voor vroedvrouwen* 2004;10(3). (Publication in Dutch)

Embo, M. Curriculumontwikkeling in de opleiding vroedkunde. Vroedkunde op modulaire vernieuwingsweg. [Curriculum development: the Midwifery department renews the traditional curriculum into a modular and competency-based curriculum]. *Tijdschrift voor vroedvrouwen* 2002;8(5):270-271. (Publication in Dutch)

Embo, M. Vroedkunde op modulaire vernieuwingsweg. [A new curriculum for the Midwifery department.] *Arteveldemagazine* 2002;1(3):25-26. (Publication in Dutch)

Conference papers

2015

Embo M, Driessen E, Valcke M, van der Vleuten CPM. Embo's Workplace Learning Model: an integrated approach to support self-directed and continuous learning in Midwifery practice. Paper that will be presented at the Midwifery Education conference: 'Innovation in Midwifery Education: what works?' Bournemouth University, United Kingdom, July 3th.

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Embo M, Driessen E, Valcke M, van der Vleuten CPM. Integrating workplace learning, assessment and supervision in midwifery education. Paper that will be presented at the Reproductive Health Conference: 'Education and practice for midwifery students'. Umea, Sweden, May 8th.

2014

Embo M, Driessen E, Valcke M, van der Vleuten CPM. Embo's Workplace Learning Model: an integrated approach to support self-directed and continuous learning in practice. Paper presented at the annual European Association for Practitioner Research on Improving Learning (EAPRIL) conference. Nicosia, Cyprus, November 25-28th.

Embo M, Driessen E, Valcke M, van der Vleuten CPM. On the relationship between reflection ability and clinical performance: a cross-sectional and retrospective-longitudinal correlational cohort study in midwifery. Paper presented at the annual Association for Medical Education (AMEE) conference. Milan, Italy, September 1-3th.

Embo M, Driessen E, Valcke M, van der Vleuten CPM. A framework to facilitate self-directed learning and supervision in midwifery practice: a qualitative study of supervisors' perceptions. Paper presented at the triennial International Confederation of Midwives (ICM) conference. Prague, Tsjechoslowakije, June 1-4th.

Bharj K, Embo M, Stiefel A, Simon S, Bekker E. Education in clinical practice. Workshop ICM Educational Standing Committee and presentation of Embo's Workplace Learning model (the Integrated Learning, Assessment and Supervision Competency Framework) at the triannual International Confederation of Midwives (ICM) conference. Prague, Tsjechoslowakije, June 1-4th.

2013

Embo M, Driessen E, Valcke M, van der Vleuten CPM. Immediate reflection on clinical performance is more valued than delayed reflection on competency development. Paper presented at the European Midwifery Association (EMA) conference. Maastricht, the Netherlands, September 1-3th. November 29-30th.

Embo M, Driessen E, Valcke M, van der Vleuten CPM. Onmiddellijke reflectie op het klinisch handelen wordt meer gewaardeerd dan uitgestelde reflectie op competentie-ontwikkeling. [Immediate reflection on clinical performance is more valued than delayed reflection on competency development]. Paper presented at the annual

Nederlandse Vereniging voor Medisch Onderwijs (NVMO) conference. Egmond aan Zee, the Netherlands, November 7-8th. (Presentation in Dutch)

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2012

Embo M, Driessen E, Valcke M, van der Vleuten CPM. Kan een geïntegreerd begeleidings- en beoordelingsraamwerk de begeleiding van het zelfsturend leren op de werkplek bevorderen? [Does an integrated learning and assessment instrument facilitate supervision at the workplace?]. Poster presented at the annual Nederlandse Vereniging voor Medisch Onderwijs (NVMO) conference. Egmond aan Zee, the Netherlands, November 15-16th. (Presentation in Dutch)

Embo M, Driessen E, Valcke M, van der Vleuten CPM. A framework to facilitate self-regulated learning and its supervision in clinical practice: a qualitative study of supervisor perceptions. Paper presented at the annual Association for Medical Education (AMEE) conference. Lyon, France, August 27-29th.

2011

Embo M, Driessen E, Valcke M, van der Vleuten CPM. Een geïntegreerd feedback- en beoordelingsinstrument om het zelfsturend leren op de werkplek te bevorderen. [An integrated learning and assessment instrument to support self-directed workplace learning]. Paper presented at the annual Nederlandse Vereniging voor Medisch Onderwijs (NVMO) conference. Egmond aan Zee, the Netherlands, November 17th. (Presentation in Dutch)

Embo M. Competentiegericht beoordelen van de bachelorproef [Competency-based assessment of the bachelor thesis]. Workshop at the educational conference for teachers higher education. Erasmushogeschool, Brussels, Belgium, October 22th. (Presentation in Dutch)

Embo M. Klaar voor Hoger Onderwijs? De kracht van reflectie. [Are students prepared to start higher education? The power of reflection]. Workshop at the conference for teachers secondary education. University College Arteveldehogeschool Ghent, Belgium, May 24th. (Presentation in Dutch)

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2010

Embo M. Waar kan de afgestudeerde vroedvrouw terecht en is zij voldoende opgeleid voor haar opdracht. [What are the job possibilities for midwives? Are they fit for practice at the moment of graduation?]. Panel discussion at the conference for head midwives of the Flemish Organisation of Midwives (VLOV). Ghent, Belgium, November 19th. (Presentation in Dutch)

Embo M, Driessen E, Valcke M, van der Vleuten CPM. An instrument to integrate feedback and assessment to support self-directed learning in clinical practice. Paper presented at the annual Association for Medical Education (AMEE) conference. Glasgow, Scotland, September 4-8th.

Embo M. Be-zorg-d om het competentiedenken: stemmen uit de gezondheidszorg. [Concerned about the concept of competence: voices from health care]. Panel discussion at the conference for teachers of het Vlaams Verbond Katholieke Hogescholen (VVKHO) en het Vlaams Secretariaat van het Katholiek Onderwijs (VSKO). Leuven, Belgium, April 22th. (Presentation in Dutch)

Embo M. Kwaliteit + cultuur = kwaliteitscultuur? Een praktijkvoorbeeld van de opleiding Bachelor in de vroedkunde. [Quality + Culture = Quality culture? A practical example from the Midwifery department]. Presentation at the annual educational conference of the University College Arteveldehogeschool. Ghent, Belgium, March 19th. (Presentation in Dutch)

Embo M. Begeleiden en beoordelen van competenties van studenten op stage. [Supervision and assessment of competencies in clinical practice]. Presentation at the biennial conference Internationale Leerstoel Francine Gooris [International Chair Francine Gooris]. University College Arteveldehogeschool, Ghent, Belgium, February 25th. (Presentation in Dutch)

2008

Embo M. Midwifery education: three or four years to be fit for practice? Paper presented at the triennial International Confederation of Midwives (ICM). Glasgow, Scotland, June 3th.

Embo M. Is het zinvol om stagetoegang te bewaken via een instapcriterium en remediëringstraject? [Is it useful to monitor access to clinical placements via entry requirements and remediation programmes?]. Presentation at the annual educational confer-

ence of the University College Arteveldehogeschool. Ghent, Belgium, April 4th. (Presentation in Dutch)

2006

Embo M, Lauwers L. The discerning power of competency based tests when assessing obstetric competencies in midwifery. Presentation at the Ottawa conference. New York, USA, May 22th.

Education

2015

Embo M. Competency-Based Education (CBE) Trainer of Trainers (TOT) Workshop. International Confederation of Midwives (ICM). Den Hague (the Netherlands), February 1-6th.

2014

Embo M. Integrating Learning, Assessment and Supervision in a Competency Framework for Clinical Workplace Education. Workshop for teachers and clinical supervisors. Metropol - Midwifery Department, Copenhagen (Denmark), October 7-9th.