Redefining Quality Criteria for Mentoring in New Digital Learning Environments

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Changes in working-life and digitalization of education challenge higher education together with workplaces to develop mentoring models in digital learning and operating environments. Digital mentoring (term for e-mentoring and now preferred in Finland) has been developed in the joint eAMK project of Finnish universities of applied sciences. Development work on the education and working-life interface was analyzed to derive principles for successful eGroup mentoring. The results indicate that development of digital mentoring in new learning ecosystems requires identifying new kinds of quality factors. In this article, we examine the various parties in the project through the jointly developed digital mentoring quality criteria and evaluation tools in 2018–2019, their creation, content and application possibilities. Areas of interest are what factors comprise quality digital mentoring for students, higher education and working-life? The quality criteria from a student perspective assist education providers to plan, deliver and evaluate working-life centric student mentoring. From a higher education perspective, the quality criteria are a scaffold for the strategic development of digital mentoring in education. For working-life the criteria provide different practitioners of mentoring, for example mentoring services and program providers and organizations utilizing mentoring in staff development, tools for modernizing mentoring in digital working-life operating environments. Central to preparing the quality criteria has been the collaboration of various parties in accordance with ecosystem thinking. Digital learning and operating environments as a mentoring context requires examining and developing practice from new dimensions, for which the first experiences of these quality criteria as quality cards provide excellent stimuli.

Introduction

Lifelong learning policy is a priority in Finland, with a parliamentary reform of continuous learning planned (Developing continuous learning 2019), which means dismantling borders and a more eco-systemic collaboration between education providers and working-life. Changes in working-life and the digitalization of education have led to reforms in traditional mentoring as, aligned with ecosystem thinking, mentoring acquires characteristics from surrounding practices (Kemmis & Heikkinen, 2012). The changes activate higher education (HE) together with working-life to a goal-oriented development of digital mentoring operating models which support continuous learning. Development of digital mentoring in new learning ecosystems requires identifying new kinds of quality criteria. Quality criteria from a digital mentoring perspective do not exist, so this article provides knowledge by examining quality mentoring in new continuous learning ecosystems.

Evolving digital mentoring in the eAMK project

Digitalization sets challenges to develop new kinds of practices in learning generally as well as mentoring as one form of learning. In The new ecosystem of learning – eAMK project (http://www.eamk.fi/en/frontpage/) 2017–2020, university of applied sciences (further UAS) experts, students and working-life stakeholders combine forces and modernize practices and learning. One measure in constructing working-life centric learning ecosystems is developing digital mentoring practices on student – working-life interfaces. Digital mentoring in this context is defined (equivalent to e-mentoring) as cooperation between two or more people in which all participants desire to develop in a common area of interest and share their expertise utilizing digital methods and tools in their interaction (Leppisaari et al., 2006). A bachelor level UAS student's mentor may be a postgraduate UAS student, alumni or working-life actor. Different forms of mentoring such as group and peer mentoring and cross mentoring in which participants come from different schools, organizations and fields are employed.

The digital mentoring development work in the eAMK project began with a background survey of four large companies and 11 HE schools to ascertain perceptions of mentoring as a tool for skill development. The participating companies were national or global enterprises operating in various industries and the higher education institutions included ten universities and one research university. The survey (Leppisaari, 2019a) showed these issues to affect evolving mentoring: 1) Local skill development is no longer sufficient. 2) An individual does not need to find one perfect mentor, but can create a mentoring network for him/herself. 3) Mentoring no longer is from an old hand to a novice, but from colleague to colleague or even from a novice to an old hand. 4) Different mentoring forms can be integrated into an operating model. 5) Mentoring needs to travel agilely "in one's pocket". 6) Traditional short-term mentoring processes are now more common. These results converge with the latest mentoring research findings. Researchers (Irby et al., 2017; Yip & Kram, 2017, Ericson, 2014) have namely identified developing community and network mentoring forms to meet the mentoring needs of new generations in digital learning and operating environments as one guideline in future mentoring research. While the affordances of real-time community digital mentoring have increased rapidly, little research exists on this (Huizing, 2012; Irby et al., 2017). The digital mentoring test bed in the ESR funded eAMK project was eMentoring education (5 ECTS) collaboratively designed by three UAS (2015–2017).

Using design based research (McKenney & Reeves, 2014) an eGroup mentoring model was developed in the course. Real-time eGroup video conferences, around which a community mentoring process was constructed, were central to the mentoring implementation.

Quality criteria for digital mentoring in the light of research

The evolving eGroup mentoring model was also a test bed for digital mentoring quality. We started with the assumption that factors impacting experience of digital mentoring quality differ somewhat from quality factors of traditional mentoring implementations. Kim Rickard explores digital mentoring quality factors in her thesis (2008). Her quality model raises structure and content of the mentoring program, quality of the mentoring relationship, and the effect of the employed technology on mentoring program delivery and mentoring interaction as pivotal factors impacting quality. Various standards exist to ensure quality of mentoring programs, such as the International Standards for Mentoring and Coaching Programs (ISMCP). Factors related to quality and especially interaction are examined and evaluated more broadly with ethical guidelines (e.g. EMCC Global Code of Ethics) which stress competence and professional practice in mentoring. Dominiguez (2017) sums up quality factors of mentoring from a good practice perspective, identifying general program management topics (assessment, planning, implementation, and evaluation) and the particular areas of mentoring (relationships and training of participants). Mentoring quality can also be examined through the learning affordances it provides practitioners and organizations and how it meets working-life and societal demands. Quality is then evident for example in how purposeful mentoring is for learning and how it leads to change (Reid, 2003; Stacey & Rice, 2002).

In this paper, we are interested in which factors of mentoring quality assurance need to be considered when mentoring is implemented with new operating practices or when it is transferred to partial or entirely digital environments. Our research (Leppisaari, 2017; 2019b) has produced four Principles for Successful eGroup Mentoring: 1. Learning outcomes and content, 2. Mentoring models and methods, 3. Interaction and 4. Digitalization. Each principle contains 2–3 subthemes which have been examined in more depth in the articles below. Here the focus is on the following critical quality factors derived from the above principles: management of a diverse use of mentoring methods and integration of different mentoring forms, establishing presence online, and selection of digital tools to support the objectives of the mentoring process. Examination of the above principles has shown that development of digital mentoring in new learning ecosystems also requires updating quality factors. This creates a foundation and stimulus for a wider survey and analysis of quality factors impacting digital mentoring.

Developing quality criteria for digital mentoring in the eAMK project

The eAMK project responds to the need to identify new kinds of quality factors in mentoring in new learning ecosystems. Therefore quality criteria and tools have been produced as support and tools for quality assurance of digital mentoring. During 2018–2019 quality criteria from student, HE and working-life points of view were prepared in the project. The quality criteria aim to support equal and high-quality opportunities for students and employees to utilize digital mentoring in new learning ecosystems.

Developing e-mentoring quality also promotes a holistic quality thinking of educational ecosystem frameworks. The creation, content and application possibilities of the quality criteria and evaluation tools generated in the eAMK project are examined in this article. Production of quality criteria was based on the development research approach described above, application of existing research findings and joint discussion. We wanted the criteria to represent multiple voices: What issues form quality digital mentoring from 1) student, 2) higher education, and 3) working-life perspectives? Research data is the material generated in the process of working on the quality criteria: documents, workshop material, Innoduel game products, the criteria launch webinar recording, expert comments during the work stages, and criteria trial documents. In terms of research validity, the researcher recognizes her close connection to the quality criteria developing process, but a more profound understanding of the examined phenomenon is considered an advantage of participation.

The quality criteria apply to the design, monitoring and evaluation of mentoring courses and programs. Each set of quality criteria was constructed slightly differently into quality cards for digital student mentoring from the student, HE and working-life points of view, and is described in detail in the introduction to each card. Common to each card are the four main themes structuring content (Leppisaari 2017; 2019b), which aim to identify the key factors of successful eGroup mentoring. The themes (objectives, operating models, interaction, and digitalization, see Figure 1) were seen as a common relevant frame for the criteria. Quality is examined, defined and made visible by looking at the phenomenon that is the four windows of digital mentoring.

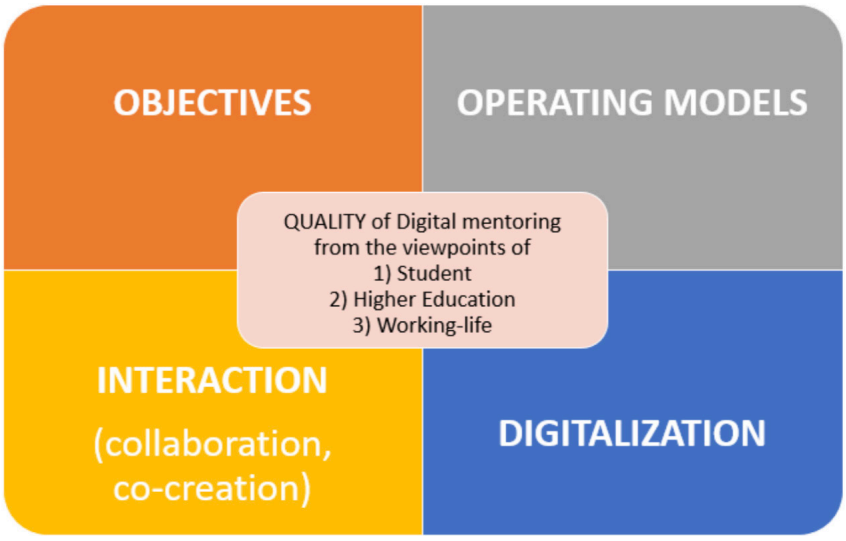

Figure 1. Dimensions of quality in the three digital mentoring quality cards

The quality card is an electronic evaluation form. It is also a tool for quality assurance. The card/tool contains four main themes (see Figure 1), each of which consists of 5–8 evaluation statements, a Likert evaluation scale (values 0–5 and "can't say") and an open field for recording observations and suggestions for development.

The person in charge of Digital mentoring initiatives in the eAMK project together with various experts and parties was responsible for preparing the quality criteria. To ensure the criteria's validity to the target group, relevant parties were included in the preparation in various ways (e.g. workshops or the digital Innoduel game). The digital mentoring quality criteria launch webinar was held 6.5.2019. The quality criteria are also available in English. Below we examine the purpose, creation and content of the quality cards.

Quality digital mentoring in ecosystems of continuous learning

Quality criteria for digital student mentoring from the student point of view

Quality criteria for digital student mentoring from the student point of view (http://bit.ly/2ZUDf47) aim to assist instructors in the planning, delivery and evaluation of quality digital mentoring implementations. Is the offered education or program of high quality and useful from a student perspective? The examination focuses on student mentoring on working-life-education interfaces. The tool can also be used by students or groups participating in various mentoring deliveries for self-evaluation.

Educational material and research outcomes emerging from the eMentoring education organized by three UAS form the basis for the student quality card criteria set. The course was used as a trial and test bed in the eAMK project. Students in their roles of eMentor and eActor tested trial versions of the quality criteria in the interim evaluation of the course and then the final version in the final evaluation. Members of the target group were therefore included in the development of the evaluation tool.

The quality card guides mentoring instructors and people responsible for mentoring programs and program deliverers to check the digital mentoring of students from objectives, operating models, interaction and digitalization dimensions. Areas of focus under objectives include how digital mentoring is linked to continuous learning and how it supports a student's uptake of generic working-life skills and individual learning needs. Student access to various mentoring methods is evaluated under operating models. Focus is especially centered on community implementations (group, peer, cross mentoring) in digital mentoring environments. Dialogue, remote presence, trust and networking in digital mentoring are evaluated under interaction. Subthemes under digitalization include the use of digital tools to support achievement of set objectives, user-skills, user support and engagement in collaborative work on digital attitudes. Initial user experiences of the student quality card have already been gained. Students in the eMentoring education felt the tool enabled them in the self-evaluation to reflect on the extent themes were realized. In her/his speech during the launch of the digital mentoring quality criteria, a HE teacher commented that the criteria's four themed division was clear and provided diverse dimensions to the examination. S/he felt that ascertaining whether the quality card was also applicable to process evaluation, as expressed at the start of the tool, required further examination. Theme content was considered relevant and comprehensive, and to rise from research. Some digitalization criteria were identified as aspirations rather than actual criteria. Further, individuals unfamiliar with mentoring terms expressed a need for greater clarity and harmonization of concepts (e.g. operating model and mentoring

form). The webinar discussion included reflection on whether the learning outcomes for some criteria were set at too low a level (cf. postgraduate/Master's level students), but at the same time it was recognized that the tool was intended for a wide application as undergraduates can also be mentors in certain guidance processes.

Quality criteria for digital student mentoring from the higher education point of view

Digital student mentoring quality criteria from a higher education point of view (http://bit.ly/2Rzenvt) were prepared to support UAS in the strategic development of digital mentoring. The quality criteria can be used as a self and peer evaluation tool in HE. The focus of evaluation is how HE delivers and develops digitalization of student mentoring through the use of working-life – education interfaces.

In addition to work among UAS mentoring experts, the HE quality card was worked on at the national Trial and develop seminar on 7.11.2018. Group work in the open eAMK workshop led to comments on the digital mentoring quality criteria from a HE perspective. Groups posted observations and suggestions for editing and development on a Padlet virtual wall where the criteria themes (4) were available. This included HE and working-life representatives in the preparation of the criteria. Fifteen representatives from HE and seven representatives from working life organizations (e.g. enterprises, public administration) participated in the workshop.

The digital mentoring quality criteria from a HE point of view contain the above mentioned four themes. Under objectives the evaluation focuses on the extent HE recognizes the significance and added value of digital mentoring as life and career –long learning practice and provides every student with an equal opportunity to use digital mentoring as part of their guidance path. How digital mentoring is integrated into the teaching strategy and curriculum is considered essential. The flexible combination of different forms of mentoring as part of the ecosystemic student learning path at HE and working-life interfaces is examined under operating model. Orientation to digital mentoring and support in mentoring implementations is also evaluated as well as how different levels of education engage in digital mentoring cooperation. Higher education engagement in co-creation of mentoring is also examined. Quality co-creation of digital mentoring requires networking and dialogue-based cooperation between HE and working-life practitioners as well as with other actors in the student's guidance path. Student participation in the development of digital mentoring is also essential. Quality criteria under digitalization focus on developing mentoring actors' digital competences, providing sufficient human and equipment resources, and developing learning platforms and applications in collaboration with e-learning companies.

Two HE faculty members in the study group commented on the quality card in the criteria launch webinar, considering it an excellent tool for self-evaluation and development of an organization's mentoring activities. The tool facilitates a diverse (themes) and profound (evaluation statements) evaluation of practice. The quality criteria provide a solid understanding of and knowledge on where digital mentoring development is headed. The criteria were felt to give concrete hints for development: "If there are areas in which mentoring is still considered a little foreign, here is a ´helping hand´ tool with which to begin development." The commentators saw the novel value of the criteria especially in their ability to open one's eyes to how digital mentoring is strategically made a part of the curriculum and teaching strategy. The co-creation dimension was also considered successful: "Co-creation was made awfully evident…we already have a robust cooperation with working-life in this area, but need to develop it further with students and actors in the guidance path".

Quality criteria for digital student mentoring from the working-life point of view

Quality criteria for digital student mentoring from the working-life perspective (http://bit.ly/2IK6q3N) were prepared to support the reform of mentoring in digital working-life operating environments. The quality criteria can be utilized in the planning, implementation, evaluation and development of mentoring. They are a tool for self and peer evaluation and stimuli in strategic work. Their purpose is to assist mentoring practitioners (e.g. providers and developers of mentoring services and programs as well as companies and organizations that utilize mentoring in continuous learning and professional development) to design quality diverse digital mentoring that responds to the changing needs of working-life in collaboration with other parties in the learning ecosystem.

As with the other cards, the working-life quality card is based on collaboration with mentoring experts and existing research. Further, the card was co-created digitally through an open game-like Innoduel survey directed to working-life representatives during 4.2.–25.3.2019 with the theme "What comprises quality digital mentoring from a working-life point of view?" The survey link was sent to members of the European Mentoring and Coaching Council Finland and was accessible openly in several social media channels, e.g. LinkedIn, Facebook and Twitter. A total of 37 responses were received. The participants voted on seeds of ideas derived from digital mentoring research and gave 412 comparative votes. Participants also added their own responses to the survey and were thus included in the preparation of the working-life quality criteria and testing of content appropriateness, thereby enabling the voice of the target group to be heard.

The digital mentoring evaluation tool from a working-life perspective also consists of four main themes. Objectives includes evaluating recognition of the significance and added value of continuous learning and skill development, the unprejudiced uptake of new ways of mentoring by working-life actors, utilization of peer and global mentoring in personnel development programs, equal opportunities to access digital mentoring, accreditation of mentoring programs, and the use of the latest research results as a basis for the continuous development of continuous learning. Issues evaluated under operating models are recognition of digital mentoring as a method to foster continuous learning development, customer-driven development of digital mentoring, orientation and coaching as well as continuous support in mentoring programs, creation of flexible mentoring operating models, provision of group mentoring, use of flash mentoring, and a streamlined implementation of mentoring processes. Issues under co-creation are openly sharing expertise, inter-organization sharing of information on effective mentoring practices and easy-to-use tools, working-life and HE cooperation in developing digital mentoring, dialogue and cooperation between coaching and mentoring actors, engagement of working-life with e-learning companies to develop digital mentoring, and the creation of national cross-disciplinary mentoring pools for different professional fields. Digitalization subthemes are implementation of mentoring processes irrespective of participants' geographical location, use of easy-to-use mentoring platforms based on needs and goal achievement and the necessary orientation and support for their use. How digital tools and platforms enable a feeling of trust in interaction and experience of presence are considered to particularly impact quality.

An organizational developer and teacher who provides mentoring and coaching in his/her company made the following evaluation on the digital mentoring quality criteria in the launch event: "In my opinion the greatest contribution (from a workplace perspective) is that they open up the possibilities of mentoring for staff development more broadly. I would recommend the criteria for organizations that want to invest in individual, team and group skill development through interactive means."

Reflection

Digitalization will meld with mentoring practices in new learning ecosystems (Leppisaari 2019a). However, we felt it was necessary to raise the digital dimension in the eAMK project by creating digital mentoring quality criteria for the planning, implementation and evaluation of modernized mentoring. Existing research and pilots justified the creation of the criteria. They indicate that developing mentoring to respond to the needs of a new generation necessitates recognition of new kinds of quality factors. The three quality cards serve to initiate discussion are a scaffold for quality mentoring in digital learning environments. The aim is to systematically integrate working-life oriented digital mentoring into a student's guidance and learning path throughout their studies. This also equips students to employ mentoring in the future as part of continuous career-long skill development. In order for mentoring to be a mechanism of moving ecosystem-wise from higher education to working-life and vice-versa, HE must be equipped to strategically recognize and locate digital mentoring as part of the learning ecosystem under reform.

The first experiences of the digital mentoring quality criteria provide a comprehensive picture of quality mentoring in the digital age and its quality factors. Further information is required on user experiences of the digital mentoring quality criteria launched in May 2019. The aim was to prepare the quality criteria at a general level, which is recognized as a challenge and requires their context-specific application, be it a question of student, HE or working-life. Copyright (Creative Commons 4.0) enables their application in new contexts. The criteria can be used as a checklist and offers new possibilities in self-awareness reflection to support self and peer evaluation and development of community mentoring. By taking into account the four-item structure of the quality cards the desired future can be proactively constructed in mentoring development work. In terms of objectives it is essential to identify mentoring as a support for continuous learning and equal opportunities to diversely utilize mentoring in one's skill development. Quality digital mentoring is ensured in learning ecosystems by co-creation in which digitalization matches the demand and supply of mentoring. Different mentoring forms especially group, peer, cross, and flash mentoring and combinations of these are raised in changing operating environments. Interaction remains at the centre of assessing the quality of mentoring (Rickard, 2008), but quality interaction requires digital skills in both presence and dialogue for them to be effective inclusive digital tools and environments.

References

Developing continuous learning 2019. Interim report of the working group. Publications of the Ministry of Education and Culture, Finland 2019:19. Helsinki.

Dominiguez, N. (2017). A research analysis of the underpinnings, practice, and quality of mentoring programs and relationships. In D. A. Clutterbuck, F. K. Kochan, L. G. Lunsford, N. Dominguez & J. Haddock-Millar (Eds.), The SAGE Handbook of Mentoring (pp. 67–87). London: SAGE Publications Ltd.

EMCC Global Code of Ethics. Retrieved June 17, 2019 from: https://emccuk.org/Public/Resources/Code_of_Ethics/Public/1Resources/ Global_Code_of_Ethics.aspx?hkey=5b5743c0-7aa6-424b-a805-b1d91bb3e5ed.

Ericson, T. (2014). Mentoring for Gen Xers. In HBR Guide to Getting the Mentoring You Need (pp. 143–149). Boston. Harvard Business Review Press.

Huizing, R. L. (2012). Mentoring together: A literature review of group mentoring. *Mentoring & Tutoring: Partnership in Learning* Vol. 20, No. 1, February 2012, 27–55.

Irby, B. J., Boswell, J., Abdelrahman, N., Lara-Aleco, R., & Tong, F. (2017). New horizon for mentoring research: Exploring the present and past to frame the future. In D. A. Clutterbuck, F. K. Kochan, L. G. Lunsford, N. Dominguez & J. Haddock-Millar (Eds.), The SAGE Handbook of Mentoring. (pp. 119–137). London: SAGE Publications Ltd.

Kemmis, S., & Heikkinen, H. (2012). Future perspectives: Peer-group mentoring and international practices for teacher development. In H. Heikkinen, H. Jokinen & P. Tynjälä (Eds.), Peer-Group Mentoring for Teacher Development. Milton Park: Routledge, 144–170.

Leppisaari, I. (2019a). Exploring emerging mentoring practices in new ecosystems of learning in Finland. In P. Kommers, T. Issa, P. Isaias & W. Hui (Eds.), Proceedings of the 6th International Conference on Educational Technologies 2019 (ICEduTech 2019) Hong Kong 8-10 February, 2019 (pp. 97–108). IADIS International Association for Development of the Information Society.

Leppisaari, I. (2019b). eGroup mentoring – an evolving operational model in new ecosystems of tertiary learning. In K. Graziano (Ed.), Proceedings of Society for Information Technology & Teacher Education International Conference (pp. 1196–1206). Las Vegas, NV, United States: Association for the Advancement of Computing in Education (AACE). Retrieved June 15, 2019 from https://www.learntechlib.org/primary/p/207797/.

Leppisaari, I. (2017). Exploring principles of successful eGroup mentoring on the interface of higher education and working life. In J. Dron & S. Mishra (Eds.), Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (pp. 391-404). Vancouver, British Columbia, Canada: Association for the Advancement of Computing in Education (AACE). Retrieved June 17, 2019 from https://www.learntechlib.org/p/181209/.

Leppisaari, I., Vainio, L., Kleimola, R., Hartnell-Young, E., & Makino, Y. (2006). Comparing online mentoring cases in educational context in Finland, Australia and Japan. In Proceedings of EMCC European Mentoring and Coaching Council Conference, November 1–3, 2006, Cologne, Germany.

Rickard, K. M. (2008). *E-Mentoring and information systems effectiveness models: A useful nexus for evaluation in the small business context.* Diss. Victoria University, Melbourne.

McKenney, S., & Reeves, T. C. (2014). Educational design research. In J.M. Spector et al. (Eds.), Handbook of Research on Educational Communications and Technology (pp. 131–140). New York: Springer Science+Business Media.

Reid, I. C. (2003). Quality goes online – new challenges for distance education. In G. Davies & E. Stacey (Ed.), Quality Education @ Distance. Working Conference: Proceeding. Massachusetts, Boston: Kluwer Academic Publishers, 249–256.

Stacey, E., & Rice, M. (2002). Evaluating an online learning environment. *Australian Journal of Educational Technology* 18(3), 323–340.

Yip, J., & Kram, K. E. (2017). Developmental networks: Enhancing the science and practice of mentoring. In D. A. Clutterbuck, F. K. Kochan, L. G. Lunsford, N. Dominguez & J. Haddock-Millar (Eds.), The SAGE Handbook of Mentoring. (pp. 88–104). London: SAGE Publications Ltd