Facilitation of Value Creation in Professional Learning Networks

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Abstract

Professional learning networks (PLN) in Higher Education represent new social configurations for networked workplaces in which education, research and innovation can be combined. Here academic staff engages with others outside of their everyday organisational community. This study identifies and conceptualizes essential behaviours that facilitators of professional learning networks use to promote value creation of various kinds.

The two-phase study started with an empirical field study on the value creation stories of 11 participants within 3 professional networks to investigate essential facilitator behaviours. A panel study including 30 researchers, lecturers and practitioners representing a wide range of learning and innovation networks, was conducted to validate and enrich the findings derived from the field study.

From the field study 54 facilitator behaviours were identified. The panel study raised 68 complementary statements on essential facilitator behaviours. Qualitative data analysis lead to five themes of facilitator behaviour. Facilitators" contributions to value creation in networked workplace contexts can be understood as the interplay of five foci of facilitative behaviour: 1. relationship, 2. space, 3. ownership, 4. direction, 5. result. Findings concerning facilitator behaviours are synthesised in an conceptualisation of the process dynamic of value creation in networked workplaces: The Facilitator Compass.

This paper provides insight on what plays a major role in the success of professional networks: the way they are facilitated. While the role of a facilitator is acknowledged in literature and in practice, this study adds to the knowledge base by showing how academic staff can navigate for value creation in networked workplaces.

Keywords: community of practice, facilitator behaviour, higher education, human resource development, professional development, professional learning network, value creation

1. Introduction

Networks represent new arena"s for research, education and innovation in higher education (HE). Universities are seeking for new orientations to serve students and society to prepare for the future in this rapidly changing world. Therefore, learning communities across boundaries of organisations, as well as professional learning networks among colleagues are built to realise outcomes that create value from multiple perspectives in a certain domain. These networks give rise to new dynamic workplaces in which learning, working and innovation are considered to be inextricably related, such as in landscapes of practice and professional learning networks (Brown & Duguid, 1991; Wenger et al., 2002; Ellström, 2010; Brandi & Iannone, 2021).

Studies across disciplines underpin that optimal facilitation of such networks is one of the highest success factors impacting value creation (Cohen & Levinthal, 1991; Wenger et al., 2002; Akkerman, Petter, & de Laat, 2008; Probst & Borzillo, 2008; Vangrieken, Meredith, Packer, & Kyndt, 2017; Fecher, Winding, Hutter, & Füller, 2020; Mueller, 2021). Facilitating learning networks is, however, by no means an easy task. Facilitation of value creation processes through networks is a complex phenomenon which calls for further conceptual and empirical underpinning (Hanraets, Hulsebosch, & de Laat, 2011; Vangrieken et al., 2017). Although a growing body of practical guidelines for network facilitators are available (Ropes, 2010; Wenger, Trayner & De Laat, 2011) the evidence base for facilitative behaviours that foster value creation for stakeholders in networked contexts is weak

(Akkerman et al., 2008; Vangrieken et al., 2017; Mueller, 2021). Because the adoption of facilitation as a new professional role and the navigation of facilitative behaviour can be a challenge (Hanraets et al., 2011; Alrø & Billund, 2021), evidence-informed but easily applicable shared mental models can serve professionals in their lifelong development. Moreover, they can be beneficial to providers of education and human resource programmes (Poell, Chivers, Van Der Krogt, & Wildemeersch, 2000; Kessels, Verdonschot, & de Jong, 2011; OECD, 2018; Topsectoren, 2019).

1.1 Study Objective and Research Question

Against this background, our study focusses on the process of facilitation of value creation in networks in HE. The research question is: *Which facilitator behaviours contribute to value creation?* The objective of the study is twofold. First to identify key facilitator behaviours that foster value creation, by answering the research question. Second, we seek to merge the new knowledge from this study with the central conceptualizations of value creation and professional learning networks in a working model ("the facilitator compass") that enables (new) facilitators to navigate their behaviour.

1.2 Conceptual Framework

As background we first address the three main concepts of this study: networks as the context of the study, value creation as conceptual framework and facilitation as a role.

1.2.1 Networks

The popularity of learning and innovation through networks is reflected by a variety of eye-catching labels, such as: Learning Network (Vangrieken et al., 2017), Professional Learning Network (Trust, Carpenter, & Krutka, 2017), Professional Learning Community (Hilliard, 2012), Community of Practice (Wenger et al., 2002; Borzillo Schmitt, & Antino, 2012), Community of Innovation Practice (Grimaldi, Cricelli, & Rogo, 2012), Community of Learning Practice (Akkerman et al., 2008; Dingyloudi & Strijbos, 2015), Network of Practice (Agterberg, Van Den Hooff, Huysman, & and Soekijad, 2010), Learning and Innovation Lab (Fecher et al., 2020), Innovation Ecosystem (Granstrand & Holgersson, 2020) and Peer Learning Network (Miquel & Duran, 2017). The differences that can be derived from this apparent polyphony of configurations relate to dimensions such as: origin and initiative (top-down versus bottom-up, stand-alone versus part of a programme), boundedness (open versus fixed goal setting), degree of integrality of goals (combination of work, learning and innovation), accessibility for participants (completely free versus conditional or obligatory), community boundaries (permeable versus closed coalitions), type of membership (individual versus organisation driven), uniformity versus hybridity of the network membership (professionals, students, researchers - lecturers, clients and citizens), degree of crystallisation (individual versus inter-organisational nested networks, lifespan (temporary versus permanent) and the stage of community development (from emergence of initial pop-up to maturity and decline).

The use of different labels for these social configurations suggests proliferation as to their conceptual and theoretical foundations, which could add to the reported conceptual confusion and lack of practical guidance (Vangrieken et al., 2017). However, as the evidence base on learning and innovation networks progresses, it has been proposed to see the differences between networked professional learning communities more as gradual and an asset for further development than a threat (Thurlings & den Brok, 2017; Ell & Major, 2019). After all, they all involve people with a shared passion and purpose, who meet because they find value in their interaction (Wenger et al., 2002). So the apparent polyphony could bear fruit and inspire across social configurations, provided the social configurations in which the research is conducted are carefully delineated (Brandi & Iannone, 2021).

1.2.2 Pop-Up Networks: The Context of This Study

The social configuration of the professional learning networks studied here can be described as a pop-up network. Pop-up networks form temporary workspaces, within and across organisational boundaries, in which professionals share and co-organise their learning and innovative spaces based on individual ideas in a temporary community of interest (Savin-Baden, McFarland & Savin-Baden, 2008). These networks can be initiated by any individual about any topic. They are temporary by design but can be the start of a long-standing and growing community. The pop-up networks studied here all followed a procedure for emerging networks called the 4*4 Pit Stop Model, see figure 1 (Aangenendt & Wallner, 2022). The four phases of the model are completed in four meetings with a maximum of four hours" time investment each. During these sessions participants address their goals in a quick and structured way. Participants can choose to continue their collaboration after the four meetings and develop the original pop-up network towards a new and more permanent network configuration. These networks are an example of open unbounded communities where outcomes have not been defined in

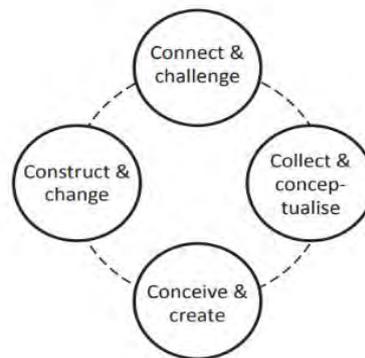advance and participants are free to join and withdraw from a meeting or the series as a whole at any time.

Figure 1. 4*4 Pit Stop Model for pop-up Professional Networks

The aim of the first phase, Connect & Challenge, is to activate peer-to-peer connections amongst colleagues in line with the helping community (Wenger et al., 2002:76) and to elicit goal setting based upon expectations of value creation. In this phase, unleashing professionals' agency, i.e. getting an idea of the potential of participation, is key. It is finalised with the development of a proposition that fuels participation.

The second phase, Collect & Conceptualise, focuses on searching, sharing and defining the resources, knowledge and experiences aligned with an individual participant's initial motive to join the network.

Conceive & Create is the third phase in which a selection of the resources is transformed into concepts, ideas and products that are relevant and applicable for the participants' original, transformed proposition.

The fourth phase, Construct & Change, relates to the processes to develop, apply and implement the deliverables to realise the desired change.

1.2.2 Value Creation

Value creation as a concept is applied in a wide range of domains from organisational learning to economics and management (Lepak, Smith, & Taylor, 2007; Granstrand et al., 2020). The basic idea of value creation refers to some processes (such as learning, researching, designing, doing business, innovating, knowledge development) that are linked to sets of outcomes (e.g. opportunities, experiences, learning outcomes, products, ideas, processes, capitals), which are considered to have meaning and importance (e.g. attributed (in)tangible benefits) for one or more stakeholders (e.g. individuals, groups, networks and organisations). Considering purpose and context of this study we select a conceptual framework that is rooted in the world of education and learning and was developed to assess value creation in social configurations such as communities of practice and other networked contexts (Wenger, 1998; Wenger et al., 2002, 2011). That value creation typology builds on conceptualisations of effect indicators of educational programs (Kirkpatrick, 1994) and has been more recently applied and developed in research of Booth and Kellogg (2015), Dingyloudi and Strijbos (2015) and Abigail (2016) after which it has been used in a range of areas (Smith, Hayes & Shea, 2017), such as HE (Dingyloudi, Strijbos, & de Laat, 2019) and health care (Abigail, 2016; Heemskerk, Dauphin, van Dorst, Bussemaker M., & Wallner, 2021). Although deliberately cyclic and iterative by nature, the model features a typology wherein the outcomes, deliverables and products that can emerge from activities are captured, organised and described in originally five value production cycles: immediate value, potential value, applied value, realised value and transformative value. Because needs and expectations concerning desired outcomes can impact a professional's choice to start or enrol in a network, the category „expected value" was added following Dingyloudi *et al.* (2015).

The six cycles are described as follows. First, *expected values* are potential profits that participants think they can harvest in the future resulting from their participation in networked activities, although participation or even the network itself is still lacking. *Immediate values* are produced on the spot during social interaction at an event and can be indicated by feelings and exchanges such as engagement, flow and joy. *Potential values* are indicators of growing knowledge and action capital indicated as picking up ideas, insights, connections and access to resources. Key is the growth and accumulation of several types of knowledge capital with the potential to be realised later (Booth et al., 2015). *Applied values* refer to indicators of change in practice and are defined as the „extent that changes in practice make a change to what matters" (Wenger-Trayner et al., 2019, 8). Examples of applied values include the use of resources, encouragement and social connections beyond the community (Booth et al., 2015). *Realised values* are indicators of performance improvement produced as a result of changes

in practice. Finally *transformative values* refer to indicators that signal a redefinition of the original challenge and provide an unexpected benefit. Figure 2 presents a visualisation of this conceptual model.
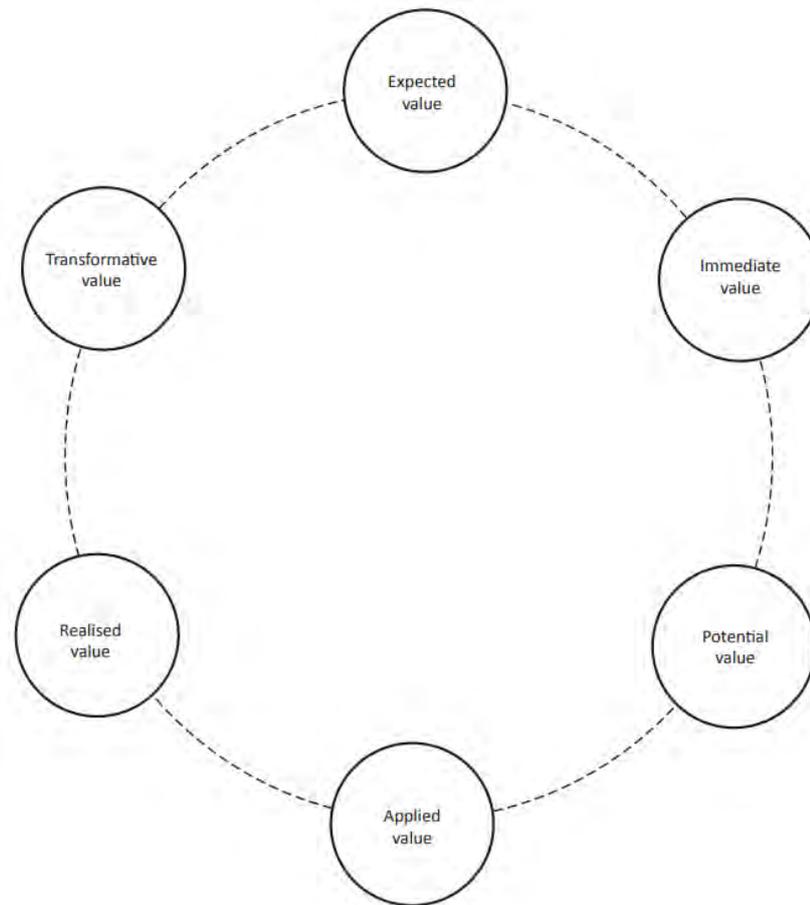
Figure 2. Conceptual model of Value Creation in Networks

Adopted from Kirkpatrick (1994), Dingyloudi et al. (2015) and Wenger et al. (2011, 2019)

This perspective on value creation in networks combines both focus and flexibility for it highlights the categories of impact while being open to specific domains and sets of outcomes.

1.2.3 Facilitation as a Role

Facilitation of learning and innovation can generally be distinguished in facilitation as a collective social process and facilitation as a professional role (Berta, Cranley, Dearing, Dogherty, Squires, & Estabrooks, 2015). In the context of organisational learning in knowledge institutions, facilitation has been defined as „a goal-oriented, context-dependent social process for implementing new knowledge into practice, or organisational routines. It typically involves individuals learning together in the context of a recognised need for improvement and supportive relationships"(Berta et al., 2015, 7). In this perspective the „facilitation promise"lies in its potential to elicit and drive „higher order learning through experimenting with, generating learning about, and sustaining small-scale adaptations to organisational processes and work routines" (Berta et al., 2015, 1). Facilitation as a role, a facilitator, refers to an individual's set of activities that supportively steers and moderates processes in networked communities. As a working definition we draw on self-directed and organisational learning and define facilitation in the context of learning and innovation networks as: a set of behaviours that support network participants in their value creation process by providing opportunities and possibilities to accomplish their goals.

Educators and researchers propose that behaving as a professional implies being able to choose and apply behaviours aligned with the specific group composition of participants and the purpose of learning and innovation in networked contexts. To that end, studies have focussed on the identification of networking tasks, common challenges, skills and developmental strategies that pertain to create, steward and facilitate networked

learning and innovative environments (Cohen et al., 1998; Ibarra & Hunter, 2007; Hanraets et al., 2011; Kessels et al., 2011; Cullen-Lester, Maupin, & Carter, 2017). Hanraets et al. (2011) investigated facilitators" roles and interventions in learning networks for teacher professional development from basic education to HE and held them up against literature, where the role of facilitator was new to the respondents. A variety of names were used to indicate the roles such as „facilitator, initiator, advisor, and co-facilitator" (Hanraets *et al*., 2011, 90). They reported five common challenges for facilitators of starting networks: what roles and interventions are used to stimulate networked learning, how to design for self-organisation, how to manage insufficient competency levels necessary for networked learning, how to balance online and face-to-face activities and how to legitimate participation in networked learning. In that study the role of a facilitator was new to all respondents and learning to be a facilitator was a matter of experimentation and learning on the job.

The adoption of a facilitator mindset to cultivate facilitation as an art can be difficult for professionals (Kolb & Kolb, 2006; Kessels et al., 2011). Taking up a facilitating role has been described as a role shift from content to process, for example from focussing on top-down administration of design & learning experiences based on fixed outcomes towards the cultivation of self-organisation and ownership of the participating professionals to support a collaborative dialogue and adopt an attitude of letting go (Raelin, 2013). Clearly, facilitation of learning and innovation requires an exploration of needs, expectation management and explicit alignment with the participants" ideas (Akkerman et al., 2008). Using this approach, facilitation follows the pathway of the participants. Facilitation of a process or activity departs from the initial need or drive from a group or single individual to provide direction. Research on clarifying facilitator behaviours then should help transcend the level of trial and error and add to the growth of a systematic and empirical knowledge base about how to contribute to value creation in networked contexts, therewith helping (future) facilitators to more consciously select and utilize behaviour that leads to value creation.

2. Method

2.1 Design

This two-phase study consists of 1. an empirical field study amongst participants of three pop-up networks, and 2. a panel study conducted to investigate the broader applicability of the results obtained in the field study within a wider spectrum of learning and innovation networks.

2.2 Participants

In the field study, the three pop-up network participants were 17 professionals between 35 to 60 years of age, most having > 5 years" experience as a lecturer-researcher or professional in the field. They were (co-)employed or affiliated to a university of applied sciences in the Netherlands. The themes of the networks in which they participated were investigative competencies, curriculum development, starting networks & communities. The average number of participants per pop-up network (5.6) was in line /slightly above the average group size reported in a meta study on peer professional teacher development activities (Thurlings et al. 2017, 568). All 17 participants were invited for an interview, 11 agreed to participate. The distribution over the networks was 5, 5, 1 respondents. The interviews were scheduled four months after the last session. Respondents were asked for their permission to use anonymous citations to clarify phenomena and processes.

In the panel study, the 30 participants attended an expert meeting on the learnings of facilitator behaviour organised at the EAPRIL conference (European Association for Practitioner Research on Improving Learning). The participants originated from four countries (Belgium, Estonia, Great Britain, The Netherlands) and worked as (lecturer-) researcher, lector/ (assistant) professor, educational consultant or manager. Panel members labelled their networks as communities of practice, (professional) learning communities and design networks partly under the supervision of universities" research programmes. Their networks were in health care, youth care, in educational (re-)design networks and in teacher training programmes for secondary and higher education.

2.3 Data Collection

For the field study, „facilitator essentials" were collected through in-depth interviews to highlight the process dynamics of value creation assumed to be related to facilitator behaviour. A key question posed to participants of the pop-up networks was: „What were key facilitator behaviours that added to value creation during these sessions?" The format of the interviews was aimed at eliciting participants" value creation stories as originally as possible, by strolling down the participants" memory lane and reconstructing the memorable events and critical moments. This approach to investigate value creation stories within the narratives of participants builds upon the work of Wenger et al. (2011), De Laat (2011) and Abigail (2016). Here, a non-intrusive open interview technique was chosen, instead of using a fixed protocol that systematically browses all possible levels and cycles of value

creation (see Booth et al., 2015; Dingyloudi et al., 2015). This open approach intended to keep the conversation „as grounded as possible" in the participants" actual experiences. The critical incidents technique was used in the interview for a more in-depth exploration of the specific moments that were presented on the memory lane. Here, the interviewee was challenged to reflect on and articulate what made that moment worthwhile, in this way recalling, reconstructing and sharing the value creation story. At the end of the interview, a card sorting technique was applied to elicit thinking aloud and reflection with regards to the key facilitator behaviours as they were experienced. This stepwise interview procedure was conducted to ensure that the facilitator essentials brought forward by the interviewees were grounded within their value creation stories experienced at critical moments. The memory lane and facilitator essentials on the cards were photographed. Interviews were recorded, including consent, and transcribed verbatim.

The panel study was conducted to collect facilitator essentials that impact value creation from a wider range of learning and innovation networks for purposes of cross validation of the results of the field study. To that end, data collection was conducted during an expert meeting on the learnings of facilitator behaviour organised at the EAPRIL conference. The central question was „What are facilitator essentials, what do we already know about being and becoming a facilitator?" Additional questions were „What strategies/tools do you already use/what is missing?", „What is your experience with learning networks/communities?" and „What else would you like to contribute?/what are we missing?" Participants were invited to share their knowledge base concerning key facilitator behaviours, insights and learnings on being and becoming a facilitator by writing them on a placemat, a large piece of paper, that contained the questions. During this 90-minute meeting, participants put notes on paper about their learnings on facilitator behaviour, including concepts, tools & job aids and prospective needs. Discussions and input were written down on a placemat which were photographed for analysis. After providing verbal information about the study and voluntary participation, consent was obtained from the participants. Data were processed anonymously. All the texts, figures and notes were harvested in an Excel format.

2.4 Analysis

In the field study, the 11 interviewees produced 56 unique statements (X = 5.1; min 3 < > 7 max), concerning facilitator essentials related to value creation for which a grounded research and development strategy was applied (Corbin & Strauss, 2015). To ensure transparency, the first coding round was conducted by two independent researchers who were not research team members. Both researchers had > 3 years experience with qualitative research techniques at a post-master level in the context of community and network learning. They analysed the facilitator essentials by clustering the statements and proposing group codes, for which they applied an open bottom-up coding strategy, going back and forth from data to proposed codes. Their code propositions were compared, clarified and discussed with the authors. During this axial coding process, the observed similarities in the coding schemata converged into a coding scheme that reflected both reported facilitator activities and the purposes of these behaviours. This way the original words and sentences were used as initial signalling codes to explore the narrative through the eyes of the interviewees. Going back and forth between data and codes, the codes converged into a process-oriented grouping of facilitator behaviour showing five essential foci of activity. Each was given one of the original statements as an overarching label. Two authors applied the ultimate coding scheme to score the 54 statements, as selective coding process. The final positioning was discussed upon consensus.

In the panel study, the 30 participants yielded 22 placemats containing 100 text fragments (X = 4.55; min 1 < > 9 max), such as single words, sentences and questions. The information was fragmented to the smallest meaningful units without the narrative losing coherence and meaning (Miles & Huberman, 1994; Frank, 2012). Using the coding scheme developed in the first round as a lens of analysis, a fixed coding strategy was applied to code all the fragments. Coding was performed by two of the authors. The interrater agreement, including all fragments, proved to be .716 (N = 99; Cohen's Kappa; SE = .054; T = 13,279; p = .000). A selection of 68 text fragments was considered to be in the scope of this study by at least one of the two raters, 31 fragments were considered out of scope by both raters.

Finally, results of the field study and the underlying theoretical foundations were synthesised and visualised in a model, in line with the procedure proposed by De Laat et al. (2011). Stepwise design cycles were executed to integrate the interviews and panel-based research findings of this study with the previously described model of value creation (Wenger et al., 2011) and the pitstop methodology for pop-up professional networks (Aangenendt & Wallner, 2022).

3. Results

Analysis of the facilitator essentials leads to five main themes, or five behavioural „foci", for facilitators to focus

on and which add to value creation in the eyes of the participants. Coding results for both field - and panel study are shown in Table 1. The left side of the table shows the coding scheme and the descriptions of codes to which the data was eventually reduced. The right side of the table shows examples of the original statements, such as facilitator essentials derived from the interviews and from the placemats in the panel study. See Table 1.

Table 1. Behavioural Foci of Facilitator Behaviour derived from Field - and Panel Study

Code name	Description of facilitator behaviours indicated with this code	Type of statements covered with this code	Field Study Facilitator Essentials derived from interviews assigned to this code	Panel Study Facilitator Essentials derived from placemats assigned to this code
Relationship	*A facilitator builds relationships with and amongst participants, which help to create an open space.*	*This code includes statements referring to creating a (joint) basis, good relationship and atmosphere.*	creating a safe pleasant environment (114), safety (123), active listening (152), explication of emotions (134), giving compliments (212), expertise (311), enthusiasm (314), enthusiasm nice & having fun (241), being triggered (127), humour (223), wants to be surprised (125), unbiased (141), relaxed (224), open atmosphere (156), genuine interest (234), sweets – connect (135) (16 cards)	motivation (1.3), support (1.4) dialogue (2.6), switching (4.6), listening (5.1), *seeing interests (5.2), open (5.3),* building relationships, connection! (5.5), *personal characteristics: positive, open minded, connector, inspirator > motivation (7.1),* safe (7.2), listening, summarising and asking questions (7.3), urgent: keeping the participants engaged (leadership skills, listening, respecting) (8.1), listener (9.4), respects others (9.5), bridging people"s opinions (9.7), FE is connection (10.1), promoting motivation: STD (10.2), distributed leadership (10.3), *boundary crossing (drawing PLG), goals (10.4), farewell? > celebrate! (11.4),* communication (13.1), *agency > groups (13.4),* good empathic strength (14.1), team building (14.2), *active (online) (14.4),* FEs are good empathic skills (15.1), team building (15.2), listening skills (16.1), creating safe environments (16.3), respecting all input (16.5), creating support (17.3) (31 fragments)
Space	*A facilitator contributes to a free and powerful space, necessary to elicit agency of participants.*	*This code includes statements referring to creating an open and powerful climate that provokes and promotes own agency & exploration / investigation by the participants.*	Giving space (144), peace (231), stimulating input from everyone (133), letting everyone speak (312), broadening by asking questions (153), actively asking (151), provoking the right follow-up questions (145), return questions (143), dares to let silence fall (142), curiosity (232), leaning back a bit (111), sharing experiences (154), stimulating (251), activating (252) (14 cards)	space (1.1), time (1.2.), space (2.3), time (2.4), open (5.3), *inviting others to participate (16.4),* take time but also define (20.7) (7 fragments)
Ownership	*A facilitator fosters ownership and agency of participants in order to enable goal setting.*	*This code includes statements referring to the choice of a direction / an intended value / the self-committed goal.*	Giving direction to participants (112), provoking ambition (132), stimulating individual activity (146), what is going on (313), making the group responsible (244), not acting as an expert (253), not intervening too quickly (214), not being an expert (242), unknowledgeable attitude (211), (no) pushiness (315), reticent attitude (213), goal-setting installation (121), investigating potential participants (122), monitoring time (243), say what you do and do what you say (233)	*creating conditions together (2.5), inspirational driver of processes, movement! (4.2.), Process supervisor of relationship, process and procedure (4.3), boost (4.7), is a facilitator an expert or just a process supervisor? (6.1),* steering group that prepares (12.1), shared leadership (12.2), own contribution (13.3), *agency> groups (13.4),* distributed leadership (14.7), whether or not you want new input in terms of members (14.8), *inviting others to participate (16.4), process control (18.1),* not becoming owner but creating movement and making it continuous (18.2), consistent behaviour according to one's own ... direction (20.4)

			(15 cards)	(15 fragments)
Direction	*A facilitator challenges participants to choose a direction and to explicate their intended deliverables.*	*This code includes statements referring to the explication of the output, promoting the development, production and evaluation of the intended yield.*	getting to the core (222), from vague discussion to assignment (225), clarity (155), applying my knowledge base to something new (126), summarising (221), variety of working methods (136) (6 cards)	quest (2.1), searching together (2.2), curious about a person's motivation (3.4), *inspirational driver of processes, movement! (4.2.), Process supervisor of relationship, process and procedure (4.3), boosting (4.7),* process management not on content (5.4), analytical (7.4), maintaining direction (9.2), group leading skills (9.6), *knowledge 'know your target and the needs of students' (10.7),* explicate what everyone's learning question goal is (11.1), strategy can be… expedition> see what comes out (11.2), need a common goal? (over time)> teacher tool (11.3), focus (13.2), wrap up what is designed / said (14.3 and 15.3), *about being and becoming: nothing yet (15.4),* summarising skills (16.2), *process management (18.1)* (20 fragments)
Result	*A facilitator supports participants in their value creation activities to realise the intended goals.*	*This code includes statements referring to the development, production and evaluation of the intended result.*	Result management (131), determining personal benefits (113), asking for benefits (147), demanding results (316), evaluation (124) (5 cards)	organisation meetings organisational goal (WHY) (3.2), *make formats / work forms for people to work with (19.1), digital platform (toolbox) to share developed tools and examples (19.2)* (3 fragments)
Other		*This code contains statements that cannot be classified under (only) one of the above codes.*		*seeing interests (5.2), managing by process not by content (5.4), is a facilitator an expert or just a process supervisor? (6.1), personal characteristics: positive, open minded, connector, inspiratory > motivation (7.1), knowledge 'know your target and the needs of students' (10.7), goodbye? > celebrate! (11.4), active (online) (14.4), crossing boundaries (PLG drawing) goals (10.4), about being and becoming: nothing yet (15.4), create formats / work forms for people to work with (19.1), digital platform (toolbox) to share developed tools and examples (19.2)* (11 fragments)

Notes: Field Study contains 56 statements on cards derived from 11 participants in one of the three networks. Numbers between () refer to the number of the network, the respondent and the card, respectively. Panel Study contains 68 of the original 100 statements derived from 22 placemats from 30 professionals in an expert panel. Numbers between () refer to the number of the placemat and text fragment, respectively. Text fragments that were given different codes are italicised and shown in both categories. Category „Other" contains 11 fragments considered to be out of the scope by one of the raters.

Facilitators" contributions to value creation can be understood as the interplay of five foci of facilitative behaviour: relationship, space, ownership, direction and result, as visualised in Figure 3. In short, the facilitator who contributes to value creation has to work on (1) building relationships with and between participants, (2) creating „space" for participants (e.g. space in the busy agenda and „headspace" to reflect and learn), (3) stimulating „ownership" by participants of the learning and innovation process, (4) guiding participants to direct their activities, and (5) supporting participants to work on concrete results.

Facilitators" contributions to value creation can be understood as the interplay of five foci of facilitative behaviour (relationship, space, ownership, direction, result). Figure 3 visualises the process dynamic of value creation presented in Table 1.
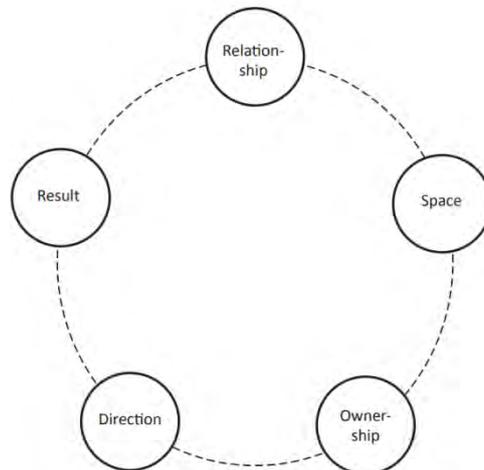
Figure 3. Working Model for Facilitator Behaviour

Finally, a Facilitator Compass is presented in Figure 4 as a synthesis and preliminary conceptualisation of the dynamic of value creation in networked contexts. Here the result of the study, the Working Model for Facilitator Behaviour, is combined with the value creation framework of Wenger and the methodology of the Pit Stop Model for pop-up professional networks that were introduced previously (Wenger et al., 2011, 2019; Dingyloudi et al., 2019; Trayner et al., 2017). This visualisation spans the dynamic of value creation at three conceptual levels of analysis. At the individual facilitator level, the process-oriented working model shows foci of essential facilitator behaviours aimed at supporting value creation processes. At the procedural level, the Pit Stop model shows a pathway, a working theory for meetings and procedures in a temporary pop-up network. At the level of the value creation framework, the Compass shows the various categories of values and cycles that can be distinguished in learning and innovation networks. Only dotted lines are used to prevent the suggestion of preliminary empirical or procedural links between levels.
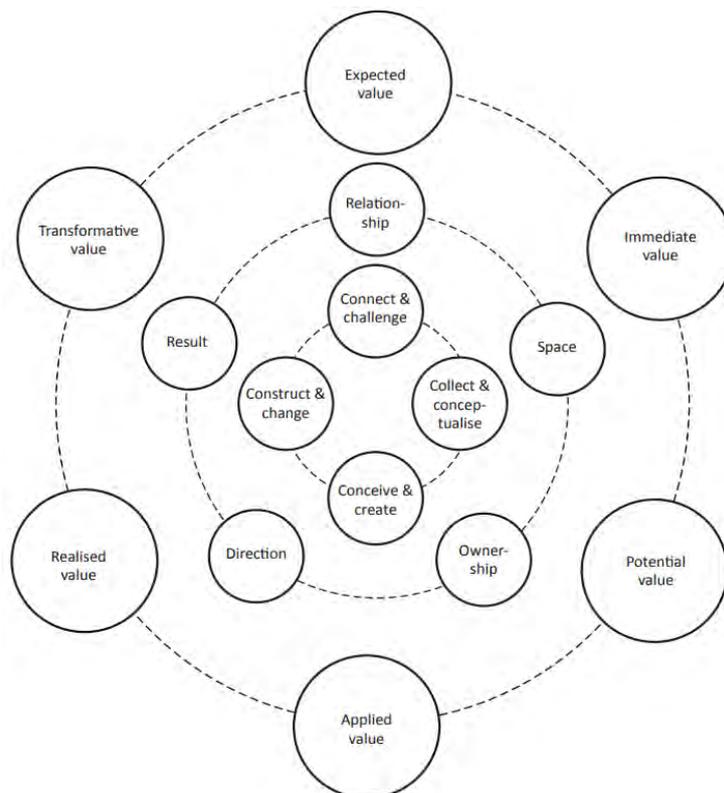
Figure 4. Facilitator Compass for Value Creation in Professional Learning Networks

4. Discussion

This two-phase study addresses facilitator behaviour in professional learning networks by putting facilitation of value creation at the centre. It summarises and conceptualises the facilitator behaviours that add to value creation in the eyes of participants within a networked context.

The results of the field study show that the key facilitative behaviours that support processes of value creation can be captured with five foci of facilitative behaviour: relationship, space, ownership, direction and result. These five behavioural foci can be regarded as cohesive sets of behaviours that play a role in the development of a goal-oriented and productive pop-up networked professional learning environment such as the 4*4 Pit Stop Model. Together, these behaviours, visualised in the *Working Model for Facilitator Behaviour*, create a strong setting that gives space, elicits, encourages, directs and supports the value creation processes in which the participants are in the lead. These foci for facilitative behaviour are in line with the paradigms of workplace and informal learning in which the agency and self-directedness of professionals are key (Manuti, Pastore, Scardigno, Giancaspro, & Morciano, 2015; Rodriguez-Gomez, Ion, Mercader, & López-Crespo, 2020).

The panel study shows that these foci of facilitator behaviour are applicable to learning and innovation networks and communities in HE with another social configuration than the investigated pop-up networks only. Taking the backgrounds and expertise of the international panel members into consideration, the proposed working model has a positive ecological validity and perceived applicability in a variety of networked contexts such as communities of practice, learning communities and design networks.

Reflection on our findings with regards to the conceptual understanding of the dynamic and complexity of value creation tempts us to propose a threefold conceptualisation of facilitation of value creation in networked contexts in a „Facilitator Compass". Here facilitative behaviour is understood as individual professional behaviour in context, a context-dependent social process following a specific network methodology while striving for a certain collection of outcomes and impact. With the synthesis of these three levels in a „Facilitator Compass", the study contextualises the essential individual facilitator behaviours together with the chosen methodology and the intended scope of value creation within a dynamic and overarching process model. From this perspective on value creation in networked contexts we propose that it is not illumination of individual behaviour, nor of methodology, nor of the intended outcomes of value creation, as stand-alone drivers, that will bear fruit, but it is their amalgamation that fuels value creation in a specific networked context. With this theoretical contribution, the study builds on and adds to a more in-depth understanding of the multi-level dynamic of facilitation of value creation called for by the learning network theory (Poell et al., 2000; Mueller, 2021). Moreover the study fits in well by adding context to recent studies that focus on the interactional aspects of facilitation, addressing processual and relational responsiveness (Alrø & Billund, 2021).

To understand the process dynamics of value creation in new networked workplaces in HE further investigation is needed into the interaction and relationships between facilitative behaviours, methodologies and processes of value creation. This multiple level perspective can enable such an approach, as proposed by Mueller (2021). A mixed-method research strategy with a multilevel and contextual approach, for instance with a series of comparative case studies would probably best suit that process of continuous conceptual development to move our understanding forward (Colquitt & Zapata-Phelan, 2007; Wenger-Trayner et al., 2020; Brandi & Iannone, 2021; Mueller, 2021).

Seeking to accelerate evidence-based professionalisation of academic staff in HE, a second avenue for research is to probe into the question how they can adopt facilitation of value creation in new networked contexts as a relevant and important new role, thus pursuing the development of a multi-faceted professional identity. Indeed professionals, regardless of their career stage, can become successful facilitators of value creation. Many authors have emphasized that high quality facilitation should become less a question of willingness or trial and error but more of professional ability and deliberate preparation and design (Hanraets et al., 2011; Berta et al., 2015; Mueller, 2021). When learning to make a difference is set as the ultimate challenge to become an efficient facilitator (Wenger-Trayner et al., 2020), understanding of that learning process is crucial. Mind frames and belief systems of facilitating scholars require a more in-depth understanding, for example by investigating antecedents and drivers of change by means of examining their career stories and career paths and their preferences for (in-)formal learning strategies (Brown & Bimrose, 2018).

The appeal of this Facilitator Compass for knowledge organizations such as HE institutions is that it highlights the contribution of facilitator behaviour in the context of self-propelling learning and innovation networks at the workplace where professionals" agency and self-directedness in goal setting are key (Cerasoli, Alliger, Donsbach, Mathieu, Tannenbaum, & Orvis, 2018). This approach is strongly aligned with a managerial and human

resources development" perspective favouring continuous life-long development and innovation, starting from the high-quality motivation of academics coming from within (Poell et al., 2000; Rigby & Ryan, 2018). At organisational level, explicit elicitation and support for value creation through network formation processes would be a new and additional strategy. A explicit strategy can enable learning organisations to become responsible research and innovation organisations (Hansen et al., 2020). Then additional human resource activities such as onboarding, peer-network learning opportunities and incentives for career development are needed to support this professional identity development and capacity building. All in all, such an approach can help to develop new avenues for academics in HE to serve value creation through education, research and innovation in networked contexts.

From a practitioner's perspective it is crucial to develop capabilities to initiate, steer, nourish and guarantee impactful value creation processes for a variety of networked contexts. As the composition of participants and stakeholders in networks becomes more heterogeneous and professionals switch roles between participant and facilitator, the proposed synthesis can have a practical use. For instance many organisations (companies, universities, municipalities) are working together towards a more sustainable future. This paper could be of interest to the many facilitators of networked learning communities that arise around transitions such as the energy transition. The Facilitator Compass can provide guidance to practitioners because it helps to reflect and deliberately engage and manoeuvre in the microcosm of value creation within a networked context with its own social configuration of stakeholders and participants. As a metaphor, a compass does not help set a course on a straight line but helps to make sense in ambiguous hybrid contexts and only works when the user is on the move. The use of such a shared mental model, community building of facilitators and experiential learning with professional peers could prompt cross-sectional knowledge sharing, reflection and the design of new ways to develop learning and innovative spaces in networked contexts (Matsuo, 2015; Mueller, 2021). Such an approach can provide strong breeding grounds for continuous learning for the purpose of value-driven and responsible professional craftsmanship in new arena's for research, education and innovation in HE.

Acknowledgements

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