Self-managing peer team as a facilitator of online teaching

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Abstract

Purpose – This qualitative study assesses the enablers of the work of a novel, self-managing digital pedagogy peer support team in a Finnish higher education institution.

Design/methodology/approach – This study employs a qualitative methodology with in-depth interviews of five digital pedagogy facilitators. The data collected are analyzed with the ATLAS.ti software. The analytical approach follows a deductive method, applying the categories derived from Magpili and Pazos (2018) who investigated the input variables of self-managing teams through their extensive literature review.

Findings – The primary findings underscore the suitability of Magpili and Pazos' variables for evaluating the performance enablers of self-managing teams. Furthermore, the findings emphasize the significance of leadership and effective communication as essential prerequisites for achieving elevated performance levels.

Research limitations/implications – This study focuses on the enablers of team performance from the perspective of the team members. To enhance comprehensiveness, subsequent phases should incorporate

viewpoints from clients, namely peer instructors, and focus on the mediator and outcome aspects of the team effectiveness framework.

Practical implications – This study offers actionable recommendations for higher education institutions aiming to adopt a peer mentor model akin to the one delineated in the study.

Originality/value – This study analyzes a collaborative approach to advancing digital pedagogy within higher education institutions and discusses the enablers for successful performance within self-managing teams.

Keywords Digital pedagogy, Online learning, Self-managing teams, Teamwork

Paper type Research paper

Introduction

Higher education institutions have developed various support mechanisms to enhance the digital and pedagogical skills of their teaching staff during and after the COVID-19 pandemic. However, these support mechanisms have not yet been extensively studied (Merzon *et al.*, 2021). Coles *et al.* (2021) investigated faculty support strategies for integrating digital technologies and found that faculty preferred workshops, web resources and personalized assistance. This paper examines a higher education peer support team that specifically focuses on these modes of work. It explores an institutionally resourced, cross-disciplinary and self-managed peer support team (hereinafter: Team) introduced at a Finnish university. The Team aimed to further enhance the teaching staff's digital skills adopted during the pandemic (cf. Multisilta *et al.*, 2023; Punie and Redecker, 2017). To achieve this, five experienced lecturers were recruited from different units across the university to provide pedagogical support to their peers throughout the university, with a 50% work time allocation from January 2021 to December 2024. This only team of digital pedagogy facilitators of the university in question received minimal guidelines for their work, enabling them to establish their own goals and priorities and work as a self-managing team (SMT). However, the term SMT was not specifically used at the time of team formation.

Beyond the pragmatic achievements during the peer support team's initial two-year term, a study was conducted to explore the prerequisites for the success of this type of a SMT (e.g. Doblinger, 2022). To achieve this, in-depth interviews were carried out with the five team members. The research question was: What were the prerequisites for the digital pedagogy facilitators to function as a self-managing team?

Theoretical framework

This study investigates the dynamics of teamwork through the concept of SMTs introduced by Aldag and Kuzuhara (2015) and by applying Magpili and Pazos' (2018) individual, team and organizational level variables that influence the functioning of SMTs. Magpili and Pazos (2018) build on the seminal article by Mathieu *et al.* (2008), where they developed an input-mediator-outcome (IMO) team effectiveness framework consisting of inputs at the organizational, team and individual levels, mediators such as team processes and emergent states, and outcomes. The present study focuses on the input factors in line with Magpili and Pazos, considering them as predictors of team processes and outcomes.

In their team typologies, Aldag and Kuzuhara (2015) made a distinction between different team types in terms of team composition, objectives, advantages and disadvantages. The identified team categories encompass functional teams, cross-functional teams, self-managing teams, process improvement teams, problem-solving teams and virtual teams. The present study focuses on a team whose operations include elements of *functional*, *virtual* and predominantly *self-managing teams*.

In *functional teams*, individuals share a common function. Shared aims may enhance cohesion, reduce conflicts and consequently contribute to efficiency. In the present study, the

Team's common function was to develop digital pedagogy by tapping into the Team members' expert knowledge and experience to handle operations related to specific functional areas. In *virtual teams*, individuals collaborate on tasks or projects with limited or no face-to-face interaction, regardless of physical distance. However, establishing effective working relationships and mutual understanding can be challenging in the absence of in-person interaction. Additionally, these teams heavily rely on communication technologies, increasing the likelihood of miscommunication. *Self-managing teams* (SMTs) bear responsibilities related to overseeing a given unit. They empower team members to take full ownership of designing and managing all operational aspects for a designated product or service, without the presence of a formal team leader. Within these teams, members feel empowered to be able to make decisions necessary to achieve the objectives, leading to heightened motivation and commitment.

Although the analyzed Team portrayed all characteristics discussed above, this study focuses on the perspective of SMTs (Doblinger, 2022; Magpili and Pazos, 2018). Previous research has examined SMTs in the context of change and implementation processes (Renkema *et al.*, 2018; Weerheim *et al.*, 2019) and through the framework of psychological contracts (Schreuder *et al.*, 2017). SMTs have been recognized for their ability to enhance organizational flexibility, performance and work-life quality (e.g. Doblinger, 2022; Millikin *et al.*, 2010). SMTs can be defined as "a group of individuals with diverse skills and knowledge with the collective autonomy and responsibility to plan, manage, and execute tasks interdependently to attain a common goal" (Magpili and Pazos, 2018, p. 4). The performance of SMTs is influenced by factors at the individual, team and organizational levels. In their literature review Magpili and Pazos (2018) delineated eight variables at the individual level that impact SMT performance, along with five variables at the team level and eight variables at the organizational level (Table 1).

Doblinger (2022) argues that Magpili and Pazos' review is limited in scope as it only covers eight skills at the individual level (Table 1). However, the present study focuses not only on the individual level but also on the team and organizational levels, which justifies the use of Magpili and Pazos' categorization. This study adds to the limited literature on digital peer mentorship (Gottlieb *et al.*, 2017; Merzon *et al.*, 2021) by examining the performance enablers of a self-managing digital pedagogy support team.

Methodology
The study utilizes a theory-driven qualitative research approach (Eriksson and Kovalainen, 2016; Friese, 2012), incorporating thematic in-depth interviews conducted with the Team members and their supervisor. The aforementioned interview provided insight into the Team's recruitment background. The use of a theory-driven approach involves the guidance of previous theories in the creation of codes and categories.

All five members of the only digital pedagogy facilitator Team of the university were interviewed for this study. Prior to the interviews, the interviewees were provided with a preliminary list of themes delineating aspects of their teamwork at the individual, team and organizational levels. The interviews were conducted in May 2023 via Teams, with an average duration of 43 min, generating a textual output spanning 57 pages. At the time of the interviews, four of the interviewees had worked in the Team for 2.5 years and one for six months. The newcomer of the Team was the youngest with four years of teaching experience, while the four others had taught 17–23 years at the university. The newcomer was a PhD student and the four seniors held doctoral degrees.

A theory-driven qualitative content analysis was conducted on the verbatim transcribed interviews using ATLAS.ti software, which allows textual data to be systematically

Categories	Codes by Magpili and Pazos	Codes in this study	Quotation examples
Individual level	Individual autonomy Individual roles Leadership Self-management skills General skills Teamwork skills Resistance to change Work experience	Individual autonomy and roles Leadership Skills: self-management skills, general skills, teamwork skills Resistance to change — Motivation	*When it comes to starting a conversation [about digital pedagogy], it's common for people to feel resistant to change. I understand that there are genuine concerns and fears behind this resistance. It's natural for new things to evoke such reactions.* (resistance to change, informant 3)
Team level	External leadership Peer control Task characteristics Team autonomy Skill diversity	External leadership Peer control Task characteristics Team autonomy Skill diversity Internal communication	*Perhaps what we require is not traditional management per se, but rather some form of coordination.* (external leadership, informant 3)
Organizational level	Corporate culture Corporate policies National culture Organizational goals Organizational structure Training Resources Rewards	Corporate culture and policies National culture Organizational goals and structure Resources Rewards	*The collegiality of teachers sharing their experiences and approaches with others, both as mentors and peers, is truly valuable.* (rewards, informant 5)

Note(s): Supplementary framework extensions proposed by the present study are displayed beneath the dashed line

Table 1.
Categories and codes related to performance enablers from the core framework (Magpili and Pazos, 2018) applied in this study, along with quotation illustrations

structured, coded and analyzed (Friese, 2012). The analysis was deductive, drawing upon categories outlined by Magpili and Pazos (2018) (Table 1).

Results

In the following, the interviews are analyzed according to Magpili and Pazos' (2018) categorization of input variables for self-managing teams (Table 1).

Individual-level input variables
Individual autonomy and roles. Research has indicated that SMTs frequently grapple with a tension between individual autonomy and team-level autonomy. While individual autonomy might motivate team members, it can impede collective accomplishments. Moreover, in the Finnish university context, which emphasizes a high degree of lecturer autonomy (Räsänen, 2008), the respondents had become accustomed to working independently.

The data demonstrate this challenge. A Team member explained having pursued individual actions pertaining to certain matters that could have been collectively addressed by the Team.

I will just go and do it, instead of asking if we could do it together. (Informant 2)

Nevertheless, the Team functioned efficiently in terms of specific role rotations. High-performing teams have demonstrated the ability to engage in role rotations, thereby achieving greater responsiveness to organizational needs, and roles can evolve in line with

work demands (Magpili and Pazos, 2018). This requires overlapping skills, trust and the ability to negotiate responsibilities. When necessary, the Team was able to rotate routine roles, such as writing weekly website tips and running workshops.

> Fortunately, we have such open communication within our team that you can openly express when you're unable to take on a task, and we decide who will take over from there. (Informant 1)

Leadership. Although routine role rotation negotiations were successful, the Team seemed unable to find satisfactory solutions for its internal leadership. Leadership has been regarded as a pivotal success factor within SMTs. In contexts such as knowledge teams, where collaborative interaction and information sharing are imperative for resolving intricate and unpredictable tasks, shared leadership has been deemed effective. Accomplished leaders help monitor performance quality, function as boundary spanners, provide mentoring and coaching to peers, nurture social development within the team by fostering group cohesion and norms, and encourage the exchange of perspectives, rectifying misconceptions and addressing concerns (Magpili and Pazos, 2018).

Despite the Team excelling in self-management, some members expressed a desire for a more organized approach. However, the Team refrained from adopting rotating leadership roles to introduce a more structured operational framework. It is very likely due to having no clear internal leadership that by May 2023, the Team had still not been able to formulate a working plan for their second two-year period of Jan 2023 to Dec 2024.

> There have been moments when I've felt a strong sense of responsibility for overseeing this facilitator activity because of my desire to approach it with clear and consistent goals in mind. (Informant 4)

Skills: self-management skills, general skills and teamwork skills. The success of SMTs hinges on members' ability to embrace responsibilities, as well as to engage in self-regulation, self-motivation, dedicated effort and the demonstration of resilience amidst challenging circumstances (Magpili and Pazos, 2018). Team effectiveness may increase if self-regulating individuals readily accept responsibilities, accomplish tasks and willingly back up their team members. The interviewed Team members were seasoned professionals who had participated in numerous development projects. It is apparent from the interview data that the COVID-19-induced emergency remote work and the constantly changing work circumstances had further strengthened their resilience and their self-management skills.

> There have been frequent and notable changes, creating a continuous cycle of transformation. It's as if we were constantly faced with different changes, and this ongoing process taught us resilience through having to navigate various challenging circumstances. (Informant 1)

Furthermore, previous research synthesized by Magpili and Pazos (2018) suggests that team success depends on the presence of highly proficient specialists covering multiple domains, including effective leadership, adept communication, and productive meeting facilitation. Teams with a variety of high-level skills are less likely to require external leadership support. Individual members with multiple skills can help improve team flexibility and enhance collective processes. Teamwork skills are crucial for enhancing team performance. Conversely, when team members lack the necessary skills, they may develop low expectations and resort to defensiveness to protect their positions and reputations. A deficiency in essential skills may also impede members from exercising autonomy.

The Team members had expertise in various areas, including interaction and people skills, hybrid learning, diversity management, learning design and analytics. Moreover, all of them were qualified educators who demonstrated teamwork skills, including active listening, systematic pursuit of goals, role rotation, commitment to equality and enforcement of fairness.

I strongly believe in having a good balance of work allocation within the team, a fair division of labor. I also value good leadership. If any of these things don't happen, I can get a bit impatient as a team member. (Informant 4)

Resistance to change. The notion of change resistance can be associated with the transition from conventional work modes to SMTs. However, in the context of the present research, individual-level change resistance was more closely linked to the profound, partly already pre-COVID shift from in-class instruction to online or hybrid modes, affecting both the Team members and their instructor colleagues.

They started pushing for distance learning, and I must admit, it put some pressure on me. At first, I was totally against it. I was like, "No way! We need that face-to-face interaction for it to work." Over time, I had to change my perspective, start studying more, and learn new things to adapt. (Informant 1)

Motivation. Numerous studies have substantiated the significance of motivation in achieving successful work outcomes and team performance (e.g. Cohen *et al.*, 1996). Hence, it is rather intriguing that motivation does not emerge as a variable in Magpili and Pazos' (2018) review. However, it is noteworthy that strong motivation surfaced as a central and prominently expressed factor for all Team members within this study.

When I saw the announcement, I literally jumped out of my chair and excitedly told my husband, "This is it! This is what I've been waiting for!" And without wasting any time, I immediately messaged the supervisor to ask if I could apply for it. (Informant 5)

Team-level input variables
External leadership. In a sense, the notion of external leadership presents a paradox when scrutinizing SMTs. However, the maturity level of the team may define the role of the leader, who should offer guidance from an external vantage point and help manage team boundaries, yet refrain from involvement in the team's day-to-day operations. The leader's role should be one of support rather than direct control, fostering team empowerment by facilitating vital processes such as conflict resolution, team communication, team development and decision-making (Magpili and Pazos, 2018). The leader is expected to provide training, resources, rewards and recognition to help a SMT thrive. Leaders who adopt a completely hands-off approach, failing to offer guidance or support, might instill uncertainty among team members. Conversely, excessive external leader intervention can potentially curtail team autonomy and diminish the team's sense of ownership; leader involvement proves productive when sought by the team or when addressing specific challenges. Trust in the leader is pivotal for achieving success.

Due to the intricate nature of academic structures, the Team members identified several hierarchical tiers: the uppermost echelon of management (Academic Rector), the faculty level (dean overseeing teaching), the departmental level (unit head and/or pedagogical vice-head) and the degree program level (professor). Furthermore, a senior university administrator, vested with the responsibility of facilitator team recruitment, held a leadership role in shaping the Team's operations.

This complex leadership structure was the subject of discussion during the interviews. The Academic Rector's influence was noted as providing guidance, albeit from a distance. The role of the senior administrator appeared somewhat ambiguous, leading to confusion. On occasions, Team members derived necessary leadership support from their immediate unit or faculty-level superiors.

The Team had difficulty with leadership, as the balance between the senior administrator's role and the Team's self-management was unclear. The Team formation in

2020 was turbulent. The potential to formulate Team objectives and operational plans was perceived differently: some saw it as a positive opportunity, while others saw it as an unexpected setback.

> At the beginning I thought that there would be a written plan or a starting point which would then be put into practice. It turned out quickly that there was no such thing. (Informant 4)

The Team required leadership to understand the broader context, align with the correct trajectory, mediate conflicts, prioritize participation in university-level and national events, and ensure sustained long-term development. Although the senior administrator possessed vital information on certain critical matters, he did not disseminate it as anticipated.

> It feels like we're kind of flirting with different ideas and initiatives here and there. We jump in, get involved for a while, but then things start to fizzle out, and nobody really knows where we're heading at the moment. (Informant 5)

Peer control. Because SMTs typically operate without designated leaders, peer pressure may serve as a mechanism to regulate unproductive behaviors, reinforce shared objectives and ensure positive outcomes (Magpili and Pazos, 2018; Stewart *et al.*, 2011). In this study, peer pressure did not emerge as a concern. The challenges were related to the remaining 50% of Team members' responsibilities. Specifically, their roles as regular lecturers occasionally interfered with their responsibilities as digital pedagogy facilitators. One Team member expanded her departmental commitments because she perceived that her facilitator colleagues had a heavier load of regular lecturer duties than she did.

Task characteristics. SMTs excel when dealing with tasks characterized by high uncertainty, task novelty and innovativeness, technology novelty, task interdependence and low task routines. SMTs derive a sense of accomplishment from tackling intricate, comprehensive and substantial tasks. In cases where tasks are straightforward and clear, essential components of SMT design, such as diverse skill sets and job rotation, become redundant and cease to provide added value (Magpili and Pazos, 2018).

The Team primarily focused on tasks that align with SMT strengths. They developed an online support toolkit for instructors to help colleagues understand the basics of online pedagogy and provide tools for different proficiency levels. Furthermore, the Team created humorous video recordings featuring different teacher personas, applying the distancing method of drama education (Eriksson, 2007) and aiming to clarify the distinct orientations and challenges encountered in online teaching.

> All our tasks require us to look ahead to the future. What we see right now is quickly fading, so we need to stay one step ahead. This is especially important when it comes to the current questions surrounding AI. (Informant 3)

The tasks were often challenging and fast-paced, requiring quick action similar to extinguishing bushfires. However, the Team recognized the importance of routines in bringing structure to their work. For example, they held weekly meetings with Student and Learning Services to exchange information and provided practical tips for online instructors on their website. Additionally, peer support was necessary upon returning to campus.

> I had to guide them step by step, showing them how to switch on the lights in the lecture hall, turn on the computer, and set up the hybrid mode for some students to participate remotely. (Informant 2)

Team autonomy. Team autonomy can encounter challenges due to various factors, including a shortage of skills or experience, inadequate managerial support, unintended managerial intervention, resistance to adopting managerial roles, implicit influence of organizational norms, rigid organizational structures and excessive peer control (Magpili and Pazos, 2018). Conversely, if autonomy is removed, team members may feel resentful, particularly if they are

held responsible for issues beyond their control. The Team encountered challenges at times due to insufficient managerial support, and some Team members were more willing than others to assume managerial roles.

Skill diversity. Team-level skill diversity refers to the heterogeneity of task-relevant skills among individuals. Complex tasks require a wide array of competencies. However, divergent backgrounds may impede collective decision-making due to disparities in status, knowledge, language, values, expectations and power. Previous research has identified challenges at the team level, such as recognizing the significance of each team member's role, communicating effectively with individuals from diverse backgrounds and providing scaffolding (Magpili and Pazos, 2018). The study only reported positive comments regarding the Team's skill diversity.

> I don't have strong enough skills in this kind of writing or text production, so I'm very happy that there are members in the group who can produce a plan and write a proper text. (Informant 5)

Internal communication. The adopted framework by Magpili and Pazos (2018) does not include communication as one of the pivotal variables influencing team performance. This omission is unexpected, considering numerous studies have emphasized communication as a critical determinant of success for work teams, especially in scenarios involving change (e.g. Qian and Daniels, 2008).

Essentially, the Team's internal communication appeared to function effectively. It exhibited informality, openness and ease, adhering to certain structures such as weekly meetings.

> I feel that in this group we have good communication and we don't have to be on guard at all, but we can just be ourselves, even though we work remotely almost all the time. (Informant 3)

Nonetheless, a desire for in-person meetings was apparent, and Team members expressed contentment with the opportunity to partake together in a conference, enabling them to spend time with each other. Additionally, discontent with information dissemination was evident, stemming from the absence of effective leadership and the necessity for more structured operations. It was essential to engage in discussions about leadership and internal interaction to address the concerns that generated discontent and thereby posed a threat to productive work. Conversely, diversity of opinions is intrinsic to human interaction, yet it should not hinder cooperation.

> Sometimes people use rather strong expressions, but I think it's healthy to have that diversity of opinions. It can't always be about everyone agreeing about everything all the time. (Informant 5)

Internal communication, however, appeared to foster an atmosphere of appreciation and equality within the Team. The Team's newcomer articulated it in the following manner:

> My experience is not that extensive compared to others, and my scientific academic credentials are not at the same level as theirs. However, I do not feel unappreciated by the other team members. (Informant 3)

Internal communication was often strained by the multitude of communication tools available at the university. Information would become lost within the various communication channels, and incomplete recipient lists in emails further exacerbated the apprehension of missing out.

Organization-level input variables
Corporate culture and policies. For SMTs, a corporate culture that esteems autonomous behaviors, accountability, team orientation, continuous learning, risk-taking and change is

advantageous (Magpili and Pazos, 2018). Conversely, a conventional top-down management culture may have a negative impact on success and impede the team's self-organization. Regarding corporate policies, overly strict guidelines can hinder the development of innovative solutions by limiting employee autonomy and adaptability.

In this context, academic cultures should ideally be conducive to SMTs, given that research universities often consist of highly autonomous teams. However, corporate culture can vary a lot, even within a single university or faculty. Some units may foster team autonomy and risk-taking, while others adhere to prescriptive policies and a top-down management approach. One informant recounted encountering challenges as a newcomer when attempting to introduce new ideas within her previous work community. Additionally, academic culture was characterized by a tendency to hastily launch new initiatives without a thorough understanding of potential outcomes. Furthermore, the corporate culture was perceived to create and maintain gaps between practitioners and administrators. Criticism was directed at the tone of internal communications at the corporate level regarding new software.

> Take the new video program, for example. It's incredibly convenient and user-friendly. However, the way its launch was presented left some people feeling frustrated. Suddenly, there was an urgent message to transfer your videos or risk losing them. (Informant 5)

National culture. Questions concerning national culture are not pertinent to this study, given that the Team under investigation comprises native Finns. However, an aspect of the national level was addressed in the interviews, namely the national *Digivisio 2030* project (https:// digivisio2030.fi/en/frontpage/; Multisilta *et al.*, 2023) that stirred a range of emotions among Team members.

> We should probably have a more visible role in it, but the whole situation seems quite unclear and it's difficult to understand what it means in practice. (Informant 5)

Organizational goals and structure. Research has shown that having clear goals is a predictor of task performance in SMTs (Magpili and Pazos, 2018). When team objectives are clearly defined and aligned with individual and organizational goals, performance is enhanced. It is also important for the team to receive feedback to ensure that team goals are aligned with organizational objectives. On the other hand, poorly defined goals can hinder performance and lead to frustration.

The Team was dedicated to realizing the vision of a "modern, learner-centered, and networked learning environment" as delineated in the university's strategy. The strategy provided ample room for their daily operations.

> We have a framework and a strategy that guides us in a way but within this framework, we have been able to creatively come up with all sorts of ideas for training, clinics, and workshops. (Informant 1)

Hierarchical organizational structures can impede collaborative processes and constrain the flow of knowledge and empowerment, which can negatively impact SMT performance. According to the reviewed research, flatter structures are more conducive to the success of SMTs (Magpili and Pazos, 2018). Several challenges arose due to the diverse levels of the university's organizational structure, including top management, faculty, unit, degree program and Team. For example, ensuring coverage for each Team member's 50% work allocation required different arrangements. Additionally, the university introduced new pedagogical leaders for each department starting in 2022. The Team under study perceived this system as highly advantageous and had actively advocated for the establishment of these positions.

I meet pedagogical leaders regularly and can listen to department-level news and needs in a pretty informal way. (Informant 2)

Resources. Access to the necessary resources, such as technology, equipment, workspace, tools, people and materials, is crucial for team success. This list should also include time, which was a central resource for the Team. Three Team members encountered no challenges with their work arrangements, whereas two members faced issues surrounding work allocation.

Yes, they did drop 50% of the courses. I had initially listed all my teaching assignments, and then half of them were divided among three different individuals. (Informant 4)

Rewards. Research on the impact of rewards has produced conflicting results. However, there is agreement that team-based rewards have a positive effect on SMT performance. Such rewards promote a heightened sense of collective ownership, whereas individual rewards may undermine this shared sense of ownership (Magpili and Pazos, 2018). Additionally, team members may feel rewarded by social incentives, such as assuming an informal leadership role and gaining the respect of the team.

The rewards documented in this study were primarily social in nature. These included active recognition of Team contributions by university management and superiors, as well as favorable feedback from peer instructors. Collaborating with a skilled and visionary Team was inherently rewarding, and the extension of the work period by an additional two years also served as a form of recognition. A Team member was promoted to the role of senior lecturer, with her contributions as a digital pedagogy facilitator cited as a factor in her promotion.

Being a facilitator presents an incredible chance for me to engage in this type of activity on a grand scale, at the university level. It's an opportunity to be part of a highly experienced group and create a significant learning space for myself. (Informant 3)

Discussion

The study aimed to investigate the prerequisites for digital pedagogy facilitators to function as a self-managing team. To address this research question, the performance enablers of the digital pedagogy facilitator Team were scrutinized using the framework outlined by Magpili and Pazos (2018).

All the necessary prerequisites for successful teamwork at the individual level were in place, despite the Team's need to balance individual autonomy in academia with collective objectives (cf. Räsänen, 2008). Research has shown that overly independent self-management by team members can undermine collective efforts in cases of team disunity and lack of cohesion (Millikin *et al.*, 2010). The Team members had the ability to rotate roles and routine tasks. They did not excel in shared leadership but, on the other hand, for example Fausing *et al.* (2013) did not find any significant relationship between shared leadership and team performance. Furthermore, the Team members demonstrated advanced self-management skills, pedagogical expertise, teamwork skills, adaptability to change and extensive work experience.

At the team level, various factors contributed to strong cooperation within the Team. There was no harmful peer control, and the diverse range of skills played a significant role in achieving collective success. The Team primarily engaged in tasks that self-management teams excel at. However, external leadership emerged as a potential weakness for the Team, and the absence of management support also posed challenges to team autonomy. Cohen *et al.* (1996) argue that teams can develop self-leadership with the guidance of a facilitating

supervisor who promotes self-evaluation and self-goal setting. Gilson *et al.* (2015) suggest that teams may also need a leader's support to overcome obstacles.

The most significant challenges arose at the organizational level. Differences in corporate culture and policies, as well as discrepancies between administrative and academic sectors, caused some issues. Time allocation was also a concern due to the division between facilitator and regular lecturer duties for some Team members. However, the Team's efforts produced clear benefits. These rewards mainly had a social dimension, such as professional recognition and the opportunity to contribute to the collective advancement in the field of pedagogy.

The framework by Magpili and Pazos (2018) used in this study does not include motivation as a fundamental requirement for team performance. However, this study found that strong motivation was a crucial factor that drove individuals to seek membership in the new digital pedagogy development Team. Furthermore, the framework employed does not address internal communication as a core element contributing to team performance. Communication, however, could be deemed particularly crucial given the heightened expectations placed upon self-managing teams regarding goal definition, task allocation and self-leadership. Additionally, effective and constructive communication fosters a positive work atmosphere, a prerequisite for optimal performance. Recent research has also established a connection between trust and knowledge sharing (Gilson *et al.*, 2015; Renkema *et al.*, 2018). Proficient communication skills play a vital role in resolving both latent and overt team conflicts (Aldag and Kuzuhara, 2015). Moreover, the risk of miscommunication increases within online environments. This study found that communication barriers arose from inadequate or excessive information flow between various units, the senior administrator and the Team. These challenges were specifically related to the use of multiple, scattered communication channels.

Limitations
This study focuses on the prerequisites of teamwork within the context of SMTs. Although the examined Team could potentially be classified as functional or virtual, this paper did not investigate those categories. The study primarily draws from the viewpoints of Team members regarding the factors that enable their work. Therefore, the next phase should involve gathering perspectives from peer instructors and superiors to ensure a comprehensive evaluation. Furthermore, the subsequent stage should adhere to the team effectiveness framework (Mathieu *et al.*, 2008) by including the mediators and outcomes of the framework in the analysis. The current study concentrated solely on inputs.

Practical implications
The study provides practical implications for developing pedagogy based on the presented approach. Firstly, skills play a crucial role. Successful self-managing teams require key prerequisites such as teamwork skills, self-management abilities and expertise in the relevant field, in this case, digital pedagogy (Sjöblom *et al.*, 2022). Secondly, external leadership is necessary, especially in the initial phase and in conflict situations. Therefore, when establishing a new professional team, it is advisable to discuss the form of leadership with the team. Additionally, fostering team spirit is vital, especially for virtual teams. Trust can only be built when team members know each other.

References

Aldag, R.J. and Kuzuhara, L.W. (2015), *Creating High Performance Teams: Applied Strategies and Tools for Managers and Team Members*, Routledge, New York, NY.

Cohen, S.G., Ledford, G.E. Jr and Speitzer, G.M. (1996), "A predictive model of self-managing work team effectiveness", *Human Relations*, Vol. 49 No. 5, pp. 643-676, doi: 10.1177/001872679604900506.

Coles, S., Martin, F., Polly, D. and Wang, C. (2021), "Supporting the digital professor: information, training and support", *Journal of Applied Research in Higher Education*, Vol. 13 No. 2, pp. 633-648, doi: 10.1108/JARHE-09-2019-0236.

Doblinger, M. (2022), "Individual competencies for self-managing team performance: a systematic literature review", *Small Group Research*, Vol. 53 No. 1, pp. 128-180, doi: 10.1177/10464964211041114.

Eriksson, S.A. (2007), "Distance and awareness of fiction – exploring the concepts", *NJ: Drama Australia Journal*, Vol. 31 No. 1, pp. 5-22.

Eriksson, P. and Kovalainen, A. (2016), *Qualitative Methods in Business Research*, 2nd ed., Sage, London.

Fausing, M.S., Jeppesen, H.J., Jønsson, T.S., Lewandowski, J. and Bligh, M.C. (2013), "Moderators of shared leadership: work function and team autonomy", *Team Performance Management*, Vol. 19 Nos 5/6, pp. 244-263, doi: 10.1108/TPM-11-2012-0038.

Friese, S. (2012), *Qualitative Data Analysis with ATLAS.ti*, Sage, London, doi: 10.4135/9781529799590.

Gilson, L.L., Maynard, M.T., Young, N.C., Vartiainen, M. and Hakonen, M. (2015), "Virtual teams research: 10 years, 10 themes, and 10 opportunities", *Journal of Management*, Vol. 41 No. 5, pp. 3131-1337, doi: 10.1177/0149206314559946.

Gottlieb, M., Fant, A., King, A., Messman, A., Robinson, D., Carmelli, G. and Sherbino, J. (2017), "One click away: digital mentorship in the modern era", *Cureus*, Vol. 9 No. 11, e1838, doi: 10.7759/cureus.1838.

Magpili, N.C. and Pazos, P. (2018), "Self-managing team performance: a systematic review of multilevel input factors", *Small Group Research*, Vol. 49 No. 1, pp. 3-33, doi: 10.1177/1046496417710500.

Mathieu, J., Maynard, M.T., Rapp, T. and Gilson, L. (2008), "Team effectiveness 1997-2007: a review of recent advancements and a glimpse into the future", *Journal of Management*, Vol. 34 No. 3, pp. 410-476, doi: 10.1177/0149206308316061.

Merzon, E.E., Sibgatullina-Denis, I., Vančová, A. and Ushakova, S.G. (2021), "Features of digital education mentors' innovations", *Development of Education*, Vol. 4 No. 2, pp. 20-25, doi: 10.31483/r-98810.

Millikin, J.P., Hom, P.W. and Manz, C.C. (2010), "Self-management competencies in self-managing teams: their impact on multi-team system productivity", *The Leadership Quarterly*, Vol. 21 No. 5, pp. 687-702, doi: 10.1016/j.leaqua.2010.07.001.

Multisilta, J., Mattila, T. and Lempinen, K. (2023), "Teachers' expectations for Digivisio 2030 – a joint higher education digital transformation project in Finland", *Paper Presented 46th MIPRO ICT and Electronics Convention (MIPRO)*, Opatija, Croatia, May 22-26, pp. 877-881, doi: 10.23919/MIPRO57284.2023.10159849.

Punie, Y. and Redecker, C. (Eds) (2017), *European Framework for the Digital Competence of Educators: DigCompEdu*, Publications Office of the European Union, Luxembourg.

Qian, Y. and Daniels, T.D. (2008), "A communication model of employee cynicism toward organizational change", *Corporate Communications: An International Journal*, Vol. 13 No. 3, pp. 319-332, doi: 10.1108/13563280810893689.

Räsänen, K. (2008), "Meaningful academic work as praxis in emergence", *Journal of Research Practice*, Vol. 4 No. 1, pp. 1-22.

Renkema, M., Bondarouk, T. and Bos-Nehles, A. (2018), "Transformation to self- managing teams: lessons learned: a look at current trends and data", *Strategic HR Review*, Vol. 17 No. 2, pp. 81-84, doi: 10.1108/SHR-10-2017-0072.

Schreuder, F., Schalk, R. and de Jong, J. (2017), "Psychological contracts in self-directed work teams: development of a validated scale and its effects on team commitment", *Team Performance Management: An International Journal*, Vol. 23 Nos 3/4, pp. 136-155, doi: 10.1108/TPM-07-2016-0035.

Sjöblom, K., Juutinen, S. and Mäkikangas, A. (2022), "The importance of self-leadership strategies and psychological safety for well-being in the context of enforced remote work", *Challenges*, Vol. 13 No. 1, p. 14, doi: 10.3390/challe13010014.

Stewart, G.L., Courtright, S.H. and Barrick, M.R. (2011), "Peer-based control in self-managing teams: linking rational and normative influence with individual and group performance", *Journal of Applied Psychology*, Vol. 97 No. 2, pp. 435-447, doi: 10.1037/a0025303.

Weerheim, W., Van Rossum, L. and Ten Have, W.D. (2019), "Successful implementation of self-managing teams", *Leadership in Health Services*, Vol. 32 No. 1, pp. 113-128, doi: 10.1108/LHS-11-2017-0066.

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