FACTORS FACILITATING AND HINDERING DEEP-LEVEL COLLABORATION BETWEEN SUBJECT AND LANGUAGE TEACHERS IN THE ESTONIAN CLIL CONTEXT

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Abstract. Content and language integrated learning (CLIL) has been employed in Estonia and worldwide for decades. This methodology involves teaching academic subjects in a foreign or second language and enables learners to develop their subject knowledge, language skills and cognitive abilities. Oftentimes, both subject teachers and language teachers are involved in CLIL instruction, and its efficiency depends on collaboration between the educators. The study aims at pinpointing the factors that facilitate or hinder deep-level cross-curricular teacher collaboration in the Estonian CLIL context as well as the outcomes of such collaboration. The interviews with in-service teachers (12) who had taken part in a CLIL tandem teaching project allowed for the identification of 26 facilitators distributed across 7 levels (structural, personal, organisational, CLIL-, group-, process- and guidance-related) and 13 barriers distributed across 4 levels (structural, personal, organisational and group-related). The teachers perceived the collaboration as beneficial to them and their pupils, and the factors facilitating it were mentioned more frequently than hindering ones at all levels except the organisational one. Therefore, the findings of this study suggest that the organisational level barriers should be primarily addressed while designing deep-level collaborative experiences for teachers.

Keywords: co-teaching, teacher tandem, levels of collaboration, content and language integrated learning

1. Introduction and background

Content and language integrated learning (CLIL), the enriched methodology of teaching subjects in a foreign or second language (L2) that allows learners to simultaneously acquire subject-specific knowledge, language proficiency and overall cognitive skills (Ball et al 2016, Mehisto et al 2008), has been used in Estonia and worldwide for many decades. The first Content and Foreign Language Integrated Learning programmes in Estonia date back to the 1960s during the Soviet period (Mehisto et al 2010, Ljalikova et al 2021). Since the restoration of independence in Estonia, the linguistic educational policy of Estonia aimed at bridging the gap between Estonian-speaking and Russian-speaking communities by implementing different approaches: creating Language Immersion Schools in 2000 (Mehisto et al 2010, Metslang et al 2013) with CLIL classes, and introducing curriculum requirements for the upper secondary school in 2011 stipulating that no less than 60% of subjects should be taught in Estonian (Rannu et al 2021), which means that those subject were meant to be CLIL subjects.

Although Estonian education has been praised for pupils' achievement in international assessment tests, cf., PISA (OECD 2019), there is a gap between schools with Russian as a medium of instruction (hereafter MOI) and schools with Estonian MOI. Despite the efforts that have been taken to bridge this gap, achievement distribution has remained uneven: pupils from schools with Russian MOI systematically underperform in comparison with peers from Estonian-MOI schools (Rannu et al 2021). Recently in 2022, the transition to the Estonian language of instruction at all levels of national education is taking place (Riigi Teataja, 2022), which is challenging the whole educational system of Estonia as it requires a CLIL-oriented approach in all schools where students have other L1 than Estonian. Despite the reported efficiency of CLIL (see Cimermanová 2020), there are several reasons why teachers in Estonia are generally reluctant to use this methodology: a belief that the implementation of CLIL leads to the successful acquisition of

the language, but not the subject content; a belief that learning in L2 is excessively challenging for students; teachers' admitted lack of knowledge in each other's fields; a lack of suitable educational resources; concerns related to managing time/workload; and concerns related to a lack of methodology-related competencies (Dvorjaninova, Alas 2018; Metslang et al 2013).

Many of these concerns, which continue to be voiced in the context of the transition to the Estonian MOI in all schools, could be addressed by teacher collaboration (Oppi 2023), which allows the teachers to stay within their respective areas of competence and create suitable resources while distributing the workload. Indeed, collaboration is considered an important feature of CLIL methodology (Dale, Tanner 2012; Honigsfeld, Dove 2010). As Honigsfeld and Dove note, "Teachers often say they collaborate, but the term means different ideas to different educators" (Honigsfeld, Dove 2010: 94). Teacher collaboration takes multiple forms and shapes, ranging from professional conversations to co-planning to co-teaching (Honigsfeld, Dove 2010). Cook and Friend go even further, claiming that "the term *collaboration* is … [often] carelessly used and occasionally misapplied" (Cook, Friend 2013: 7), therefore excluding a range of professional practices that educators themselves would describe as collaborative from the definition of collaboration.

This study examines teachers' professional collaboration using Vangrieken and colleagues' (2015) theoretical framework. According to this framework, collaboration is defined "as joint interaction in the group in all activities that are needed to perform a shared task" (Vangrieken et al 2015: 23). In the current study, we will investigate the professional development of CLIL teachers arising from subject teachers (ST) and language teachers (LT) working together in a tandem. Teacher professional collaboration encompasses teamwork, joint activities, lesson observations, regular planning partnerships, and engaging in professional collaborative learning (Kelchtermans 2006). All these constitute deep-level collaboration. However, it is difficult to achieve, as it needs "putting daily practice into question"

(Vangrieken, Kyndt 2020: 180) and discussion of controversial and sometimes conflicting issues (Vangrieken, Kyndt 2020). In that sense, a *deep-level collaboration* should be differentiated from everyday *interactions and coordination* in teaching, such as discussing students, sharing materials, evaluating standards, and participating in team conferences (Ainley, Carstens 2018).

According to TALIS-2018 results (OECD 2020), teachers more often engage in exchange and coordination than in truly collaborative activities – both in Estonia and worldwide (OECD 2020). In Estonia, the rate of educators' engagement in deep collaborative practices is even lower than the average across the OECD countries: only about 20% of teachers co-taught or took advantage of collaborative learning opportunities, and less than 10% were involved in peer observation and feedback or joint activities across different age groups, as of 2018. This is similar to the OECD average but differs significantly from the leading countries' rates: for example, in Italy, more than 60% of educators are involved in co-teaching, and more than 25% in peer observation and joint activities; in Norway, more than 30% of teachers co-teach, and more than 40% participate in collaborative learning activities. Besides, the dynamics of involvement in the collaborative activities were rather negative: the proportion of teachers (secondary) engaged in co-teaching activities on a regular basis (at least once a month) dropped by about 6 percentage points over the period 2013-2018, while no change was observed regarding peer observation and feedback. Proceeding from the previous discussion, such rates do not meet the needs of the Estonian educational system in view of the current transition to Estonian MOI, as it requires strong language and subject integration and thus stronger collaboration between corresponding professionals.

To understand how to reverse these negative dynamics, encouraging teacher collaboration and thus facilitating the use of CLIL, the factors affecting current practices should be considered. Teacher collaboration both in and outside the CLIL context has been extensively studied in the last decades, and the factors affecting it, as well

as its outcomes, have been identified and classified in different ways (Creese 2005; Davison 2006; Dale, Tanner 2012; Vangrieken 2015). One of the most comprehensive taxonomies was developed by Vangrieken et al (2015). In this framework, factors facilitating collaboration were described and classified into categories such as personal, structural, organisational, as well as factors related to the group, the process and guidance; while factors hindering collaboration were observed at the personal, structural, organisational and group levels. In addition, the collaboration outcomes were found to be distributed across the teacher, student and organisational levels. However, limited data is available on how these taxonomies are applied in practice, especially in the Estonian CLIL context. The current research aims to contribute to filling this gap by studying collaboration between subject and language teachers in the CLIL context in Estonian schools.

The **research questions** that guided this study were the following:

- How can teacher deep-level collaboration be facilitated? What factors play a role in its facilitation or hindering?
- How do teachers perceive the effect of deep-level collaboration on their professional lives?

2. Methodology

2.1. PARTICIPANTS

The participants of the current study were twelve in-service teachers who voluntarily responded to the call for participation in a research project coordinated by a public university in Estonia. The participants formed six tandems. In this project, participants collaboratively developed and successfully delivered teaching materials for CLIL teaching modules in their classrooms. The participants worked in tandems (Alas et al 2023), each of which comprised two fellow teachers from the same school, a language teacher and a subject teacher with varying degrees of experience. The characteristics of the tandems are presented in Table 1.

Table 1. Participants' characteristics

Tandem	Referred to as	Subject	School
Tandem 1	Teacher 1a	English	Russian and Estonian MOI school, Estonian immersion
	Teacher 1b	Geography	
Tandem 2	Teacher 2a	Estonian (as a second language)	Estonian MOI school, some pupils with other L1s, linguistic support (teaching Estonian as a second language)
	Teacher 2b	Primary teacher	
Tandem 3	Teacher 3a	German	Estonian MOI school, some students with other home languages
	Teacher 3b	History	
Tandem 4	Teacher 4a	French	Estonian MOI school with a strong focus on language studies
	Teacher 4b	Art	
Tandem 5	Teacher 5a	German	Estonian MOI school with a strong focus on language studies
	Teacher 5b	Music	
Tandem 6	Teacher 6a	English	Estonian MOI school with a strong focus on language studies
	Teacher 6b	Science	

The enrolment in the study was on a voluntary basis with informed participant consent, which was given orally prior to interviews. All identifying information was removed or disguised.

2.2. DATA COLLECTION

Data were collected by means of semi-structured interviews over a period of six months. The interviews were collected by a team of five researchers and each lasted 55-75 minutes. The research team included four teacher educators and one Master's level student. The interview guide with open-ended questions included the following subsections:

1) Tandem formation and work in the tandem;
2) Role distribution in the tandem;
3) Previous experience with collaborative practices;
4) Expectations for work in the tandem;
5) Teachers' strengths regarding collaborative work.

The questions addressed both the topics of collaboration facilitators and barriers, as well as the outcomes (or effects) of the collaborative process. Examples of such questions are: "How did the tandem form? How did the school administration support you?" (section 1), "How would you evaluate each tandem member's contribution?" (section 2), "What was your previous experience in collaboration with other teachers?" (section 3), "What were your expectations and to what extent were they met?" (section 4), "What do you consider your and your partner's primary strengths for collaboration?" (section 5), etc. The participants were also invited to leave free comments on collaboration in tandems ("Would you like to add anything regarding collaboration with your partner?").

2.3. DATA ANALYSIS

The interviews were further processed using directed content analysis by three researchers of the team. Most of the codes and themes were deductively chosen according to Vangrieken's (2015) taxonomy of factors facilitating or hindering teacher collaboration and the effects of collaboration. As the CLIL teacher tandem could be considered both a team and a professional (learning) community, the whole taxonomy was used, and no distinction was made between factors appearing on the team and professional (learning) community level; the same applies to the effects. The following themes (groups of factors) were applied in relation to the collaboration barriers: personal, group, organisational and structural; these and two additional themes (process and guidance) concerned collaboration facilitators. One additional theme (CLIL) concerning the latter, which accounted for the factors related to the CLIL context, emerged inductively.

The categorisation matrix was pre-tested by three members of the research team who analysed about 10% of the interviews independently, followed by a discussion and comparison, which revealed a close similarity in coding, which ensured investigator

triangulation. Each of the interviews was then analysed individually using CATMA online software. The analysed interviews from the same tandem were then compared.

The primary codes were then synthesised into broader categories; some of the initial codes became secondary categories, as no close codes emerged, while some were merged (primarily within their categories). In addition, the primary category related to the team structure was renamed to account for the peculiarity of the CLIL teacher tandem.

3. Results and discussion

As Tables 2 and 3 show, the facilitating factors appeared to be distributed across the following levels: personal, structural, group, process, organisational, guidance and CLIL. The hindering factors emerged at the following levels: personal, structural, group and organisational. These categories occurred unevenly across the stages of the collaborative process. Furthermore, the teachers only mentioned the positive effects of collaboration, which manifested themselves at student and teacher levels.

3.1. PROCESS-RELATED FACTORS

In the interviews, the respondents most commonly described the **process** of collaboration, prompted by such questions as "How would you describe the collaborative process in the tandem?" Thus, **process**-related facilitators comprised the most frequently mentioned group of factors. In Vangrieken's (2015) research, the **process** level contained the most factors. Similarly, the participants of the current study mentioned more facilitators at this level than on any other level. Let us consider the ones that the repondents found most prominent in guiding the collaborative process.

The most frequently named factor within this group was ***communication***, which was open and intense in most tandems: *"We*

Table 2. *Factors affecting deep-level collaboration (number of occurrences)*

Level	Facilitating	Hindering
Process	Communication (42) Task interdependence (38) Flexibility (33) Task (27) Student-centred focus (23) Performance (equity/balance) (21) Leadership in the tandem (10) Shared and individual goals (9) Backing-up behaviours (5) Self-management (4) Trust (4) Strong commitment to academic achievements (1) **(217)**	**(0)**
Structural	Tandem structure (50) Allocated temporal resources (41) Shared working environment (5) **(96)**	Time pressure and lack of time (27) Distance and hybrid learning (13) No own working space, difficult to reach each other (3) **(43)**
Personal	Positive attitudes and beliefs (48) Experience (48) **(96)**	Insufficient buy-in/unwillingness to collaborate (5) Inexperience (4) Undeveloped collaboration skills (1) **(10)**
CLIL	CLIL **(88)**	**(0)**
Group	Matching of personalities (29) Teacher choice (14) Leadership and initiative (team formation) (8) Support in the tandem (8) Homogeneity in educational views and motivation (5) Team size (2) **(66)**	Lack of structure and communication (16) Task- and goal-related disagreement (4) Balkanisation (3) Performance: inequity, no balance (2) Different personalities/philosophies (2) **(28)**
Organisa-tional	Support from the administration (11) Commitment to the reform (3) **(14)**	Lack of school policies and structures (12) Isolation and individualism in school culture (3) **(15)**
Guidance	Feedback **(8)**	**(0)**

Table 3. *Effects of collaboration (number of occurrences)*

Level	Positive effect	Negative effect
Student	Student success **(5)**	**(0)**
Teacher	Professional development (32) Professional dialogue (25) Goal achievement (13) Motivation (8) **(78)**	**(0)**

discussed everything together." (Teacher 1a), *"We discussed [both language- and subject-related content] together"* (Teacher 5a). Some respondents mentioned it as their strength in relation to collaboration "If there is some misunderstanding, I will [say] immediately that […] we need to discuss it" (Teacher 4b). Similarly, *flexibility* – another recurring theme at this level – was interpreted as both the feature of the collaborative process (*"We first thought we would have five lessons but in the end, we had six"* – Teacher 5b) and a personality trait facilitating it (*"We are both very flexible"* – Teacher 5a). Another common process-related facilitator was the *task* that was characterised by a high level of *interdependence*: *"We checked that both activities would support the goal and that there wouldn't be too much duplication."* (Teacher 2a).

3.2. STRUCTURAL FACTORS

Achieving the high level of *task interdependence* detected would not be possible without the clearly defined *tandem structure* (a **structural** factor) in each tandem, which included roles, goals and norms of procedure, similar to *team structure* described by Main (2007). It is not surprising, therefore, that **structural** factors, among which *tandem structure* was the most commonly named one, comprised the second most frequently mentioned level. The *tandem structure* accounted for the peculiarities of the CLIL tandem, and was thus closely connected with the **CLIL**-related factors. Most teachers admitted that they worked within their own field of competence:

"We created the strategy together, and tactics independently. […] We had a common goal… […] And then each of us worked in their subject" (Teacher 1b); *"The way in which we collaborated did not change so that I would deal a lot with the subject and [my partner], vice versa, with the language, so these boundaries stayed intact"* (Teacher 6a). However, some teachers had competencies related to their partners' subjects and that allowed them to be more involved in the discussion and thus made the collaboration deeper: *"My first degree is Estonian philology. Therefore I pay even more attention to language"* (Teacher 2b); *"We […] discussed everything together, since I also have a degree in music teaching"* (Teacher 5a). This might have motivated them to participate in the project and could be thus closely related to **personal** and **group** factors that will be considered below.

Interestingly, the time-related facilitator (***allocated time resources***) was mentioned less frequently, although the corresponding barrier (***time pressure and lack of time***) was the primary issue occurring at this level. While the CLIL module development and delivery were perceived as time-consuming: *"The only problem was that… how to find the time."* (Teacher 1a), a minority described their schools as allocating some additional resources for the teachers to collaborate successfully: *"The administration supported us in all possible ways; [they said] if you want, go [ahead]; [they arranged for] substitution and everything"* (Teacher 1a); *"Our timetables were [organised] so that [he] could cover for me"* (Teacher 2a). At this school, teacher also had opportunities for peer teaching and learning. However, in other contexts, teachers mainly worked on the project assignments on the university premises, as there were few opportunities to do that at their schools because of temporal and spatial barriers: *"We did most things together in the sessions"* (Teacher 6a); *"We met in the [school] building; well, we physically work in different wings. We have the main building; I work in one wing, he works in the other. […] We met in the teachers' room, talked a bit, then we could talk a bit on the phone when I couldn't be bothered to run through the whole building."* (Teacher 3a). These examples show that in cases where ***lack of***

supporting structure was observed at the school level, the university project framework provided (at least, partially) the much-needed time and proximity for the teachers in tandems. However, in one case this framework was perceived to be too rigid: *"[I] would prefer […] the submission and participation deadlines to be on different dates. […] If they had just been on different dates, it would have been more convenient"* (Teacher 3b). These examples show that although the barriers occur at the **structural** level, the solution to overcoming them lies in the **organisational** dimension, as the school or CPD provider should supply the temporal and spatial resources.

The second most common **structural** hindering factor was *distance and hybrid learning*. This code emerged inductively in relation to the COVID-19 pandemic and teachers' involuntary switching to remote teaching. In most cases, it was associated with the teachers' feeling of uncertainty and frustration: *"Hybrid learning was a challenge. […] And we were stressed out a bit because we didn't know whether there'd be a switch to distance learning because we'd definitely have to change something."* (Teacher 1a). The teachers also perceived the collaborative process in these circumstances to be inferior to collaborating face-to-face: *"It's additional workload, and, naturally, it's perhaps not as deep"* (Teacher 4a). However, in one case, it actually facilitated co-teaching in a force-majeure situation: *"I […] then supported [them] via Zoom […] I was there in the lesson."* (Teacher 2a). This was also an example of **backing-up behaviour**. The teachers from other tandems used digital tools to collaborate both asynchronously and synchronously, which facilitated the process: *"[We] communicated on Messenger and had a Google Drive document where we wrote things synchronously or asynchronously"* (Teacher 2b).

In general, the facilitators of this level were mentioned more frequently than the corresponding barriers.

3.3. PERSONAL FACTORS

While **personal** facilitators were as commonly mentioned as **structural**, the barriers seemed to occur at this level even less frequently. Speaking of facilitators, *positive attitudes and beliefs* were named as often as *experience* related to collaboration. Most teachers said that their partners were as willing to collaborate as themselves, and believed that this willingness was their strength and an important factor in their tandems' success: *"We were both very excited and looking forward to the experience."* (Teacher 2a); *"My strength is that I like collaborating. […] I like doing [things] together, discussing [them], and I somehow think that this way of collaborating is right for me. […] And [my partner] met my expectations because she was also cooperative."* (Teacher 5b). The participants' experience also played a role in facilitating collaboration, especially when the teachers reported having done something together with the same partner in the past: *"Our tandem formed about three years ago"* (Teacher 1a). This, in turn, reactivated the positive attitudes and expectations of these participants. At the same time, some teachers admitted to having no prior experience: *"I didn't have any CLIL collaboration experience."* (Teacher 5b), which is related to their *inexperience*. Other barriers occurring at this stage were *undeveloped collaboration skills* and *insufficient buy-in/unwillingness to collaborate*. The latter was mentioned more frequently and mostly related to the teachers' perceived high workload and lack of time: *"She came to me and told me [about this project], like, let's do it; I was indeed very sceptical, like, how will I manage it, I have to write a thesis…"* (Teacher 4b). In this sense, even though this issue manifests at the **personal** level, its roots lie at the **structural** level, and the keys to solving it are at the **organisational** level, which will be considered below.

3.4. CLIL-RELATED FACTORS

The next level (in the order of frequency) is **CLIL**. As it was shown above, it was mentioned in relation to the peculiar role distribution in tandems consisting of language and subject teachers. Another aspect was the participants' evolving understanding of what collaboration in the CLIL context is and what value it brings: *"I can't explain, for example, the issue of CO2 emissions as well as she can"* (Teacher 1a); *"I […] learned that… [you can] go ask a colleague, talk to a friend."* (Teacher 3b); *"Two heads are better than one"* (Teacher 2a, Teacher 5b).

3.5. GROUP-RELATED FACTORS

Group-level facilitators were mentioned less frequently than those belonging to the levels described above; however, there were more barriers observed at this level than at the **personal** level.

The facilitators of the group level were closely related to each other and the facilitating factors observed at other levels. For instance, the **matching of personalities** guided **teacher choice** in the case of participants with prior **experience**. This, in turn, led teachers to have **positive** expectations, **attitudes and beliefs**: *"Our collaboration is a good match […] I believe, how to say, people's compatibility, it is important. […] It went like on autopilot."* (Teacher 3a). *"As I work with my partner, I know it can be very good, it can be successful… So we were very positive. […] I think having matching personalities is important."* (Teacher 1a). Another commonly mentioned facilitator, **leadership and initiative**, accounts for a teacher's active role in the tandem formation (as opposed to the **process**-related **leadership in the tandem**, which accounts for a more active role in task completion). In three tandems, the initiative came from LTs, in two tandems, from the STs, and in one tandem it was not mentioned. This distribution is aligned with the claim that CLIL is often brought to classrooms by LTs, and not STs (Cimermanová 2020). While in some

tandems, the leading position of the LT (Tandem 4) or ST (Tandem 1) was maintained, in others, it changed, which is reflected in the difference between the facilitating factors of **leadership and initiative** and **leadership in the tandem**. For example, in Tandem 2, the leadership was transferred from the LT to the ST, which could be explained by the leading role of the subject in CLIL methodology where language is considered to be merely a vehicle used in order to achieve subject content mastery (Ball et al 2016).

Interestingly, only one participant mentioned team size; she believed that *"the […] efficiency would have been higher if there had been 3-4 people in the group"* (Teacher 4a), while one more participant mentioned that he did not expect having a collaborative experience at all: *"What I […] expected and hoped for was that if I, for example, teach on my own some upper-secondary pupils or pupils with a higher level of English, then I could take some materials in English… […] for example, how to deal with vocabulary questions."* (Teacher 3b). The latter, however, later transformed into a learning point for him: *"I rather learned that… [you can] go ask a colleague, talk to a friend."* (Teacher 3b). Also, some participants considered the tandem setting a growth opportunity: *"I think it was [a good] developmental [opportunity], this collaboration, […] in tandems."* (Teacher 6b).

The hindering factors of this level also affected other levels. In some cases, for example, **lack of structure and communication** was observed, which affected the collaboration **process** and corresponding factors. In one case, miscommunication was related to the teachers' **flexibility**: *"We didn't agree on when we would meet. When we could, we met."* In another instance, it was related to their **performance**, as it made it impossible to establish if the workload was distributed equally: *"I don't know whether she did it 2 hours or 120 hours"* (Teacher 3b). However, in most cases, an occasional **lack of structure and communication** did not seem to have a significant negative impact on collaboration: *"I thought at first in a different way… […] I had one vision [regarding the materials], [she]… […] I hope she was fine with it. I do not worry about it at all."* (Teacher 3b).

Task- and goal-related disagreement, as well as the performance-related barrier (*performance: inequity, no balance*) in essence, could be also juxtaposed with such **process**-level facilitators as *shared and individual goals* and *performance (equity/balance)*, respectively. *Balkanisation*, another commonly mentioned hindering factor, was related to *inexperience* (a lack of experience in collaboration), a **personal**-level barrier: the teachers from Tandem 2 mentioned having no prior experience of collaborating with each other, as they belonged to different 'bubbles' within which teachers communicate and collaborate: *"Secondary teachers keep together and collaborate among themselves"* (Teacher 2a, a primary teacher). At the same time, it could be considered to be part of school culture, and thus closely related to **organisational** factors that will be considered next.

3.6. ORGANISATIONAL FACTORS

Although both facilitating and hindering factors occurring at the **organisational** level were significantly less frequent than the factor belonging to the aforementioned categories, this level is important for two reasons. First, as shown above, some barriers of other levels have roots and/or possible solutions at this level. Second, it is the only level where hindering factors were more commonly mentioned than the facilitating ones. Therefore, addressing the barriers of this level may significantly improve teachers' experience of collaboration. *Administrative support* was commonly mentioned at this level as a facilitating factor. While in two tandems, the administration was said to have actively supported the participants, through *allocating* some additional *temporal resources,* for example, (see above), in another tandem, the role of the administration was limited to informing the participants of the professional development opportunity or even merely agreeing to the teachers' initiative, according to the second participant of the same tandem. The administration's *commitment to the reform* was not perceived as a widespread factor either. In one

case, the administration tried to promote peer observation and feed-back, however, their effort was undermined by teachers' reluctance: *"But nobody dares to go and touch a nerve. You know, even if you go [to another teacher's lesson] with the best intentions, you make the other teacher anxious."* (Teacher 3b). That shows that a long-established ***culture of isolation and individualism*** may not be transformed immediately, even if the administration is trying to encourage more collaborative practices among educators. However, a ***lack of school policies and structures*** was reported to hinder collaboration even more frequently than the ***culture of isolation and individualism***. The respondents emphasised the ***lack of school policies and structures*** primarily in relation to ***time***-related concerns (*"It was impossible with the current timetable for [my partner] to come to language classes."* – Teacher 4a), which is often taken for granted: *"More time to sit down peacefully would be [needed]. But it is inevitable; we won't have it in the future either in case we want to something together."* (Teacher 2b). Therefore, promoting collaboration in schools is only possible if the collaborative culture (as opposed to individualism and isolation, as well as balkanisation) is promoted, and a framework is created in which teachers have enough (temporal and spatial) resources.

3.7. GUIDANCE-RELATED FACTORS

Only one facilitator – ***feedback*** – occurred at the **guidance** level. While some teachers actively sought feedback, also outside of the tandem ("It was useful for me that someone else […] looked at the materials and gave advice, how to do things differently." – Teacher 6b), it was not described as a standard practice within tandems, which is in line with TALIS-2018 findings which suggest that peer observation and feedback are uncommon in Estonia (OECD 2020). In one case, where giving feedback in the tandem did take place, the participant mentioned that it was not reciprocal: *"She […] left com-ments on the exercises [I created and sent to her], because I needed her approval, from her point of view, because I can create an exercise…*

But […] perhaps, she would want me to add some other term in this task. And then I would add something. […] I did not comment on her exercises." (Teacher 1a). This corresponded with the leading role of the subject (and the ST) in this tandem. In general, the findings concerning this level suggest that in many cases, the whole school culture should be transformed for peer feedback to become a default practice among teachers. The key to doing that could be found, once again, at the **organisational** level – even if the current approach is not bearing fruit, as in the case of the administration's ***commitment to the reform*** mentioned above.

Despite the aforementioned barriers, the collaboration experience was described by the participants to be beneficial for them and their pupils, and no negative outcomes were reported. However, this might at least partially be explained by the voluntary participation in the project which was thus likely to attract educators with pre-established ***positive attitudes*** towards collaboration.

The main outcome observed at the **student** level was ***student success***. It was described by the participants from Tandem 2 – a ***student-centred*** tandem oriented towards one particular international pupil in an Estonian-medium school, i.e. a medium resembling the ELL teaching setting (Honigsfeld, Dove 2010), but with a different language of instruction. Her success was reported not only at the level of the objective demonstration of the targeted skill in class: *"She actually can catch up with her […] class so quickly."* – Teacher 2b; *"What a positive experience is it now that this girl [is] like… B1-level in maths terminology […] It is possible to do it for a pre-A1 level pupil…"* Teacher 2a), but also at the subjective level of the pupil's emotions and well-being: *"…how happy she [the pupil] is…"* (Teacher 2b). As mentioned above, this tandem was characterised by ***student-centredness***, which has been long considered one of the "complementary best practices" in Estonia (Mehisto & Asser, 2007) and could have accounted for the ***student success***.

On the teacher level, this translated into ***goal achievement***: *"We achieved what we wanted."* (Teacher 1b), which becomes an important

source of teachers' **motivation**: *"This was a super successful experience for both of us as teachers as well."* (Teacher 2a). Another source is knowledge and experience of collaboration gained in the project: *"Thank you (the project facilitators) that you've shown us the way – now we will move on, on our own."* (Teacher 1b). However, teachers reported having learned not only from the project facilitators but also from each other: *"I think she learned from me some techniques."* (Teacher 2a). Some challenges have also been transformed into learning points: *"We had to make a lot of effort, but the greater the effort we had to make, the greater the learning point."* (Teacher 2b). Apart from teacher learning, the teachers mentioned the raise of **professional dialogue** that continued beyond the project: *"We talk a lot… Even till now, she keeps me up to date with something related to it… and positive experiences […] otherwise [if not for this collaborative experience], it probably wouldn't be like that."* (Teacher 2a). The participant also expressed the hope that the **professional dialogue** will extend beyond the tandem and help to overcome balkanisation: *"She will probably spread the word about me in her circle of class teachers."* It could also create other peer-to-peer sharing and teaching opportunities: *"We hope that after the seminar [we are planning for our colleagues] where we share how the lessons went, what ups and downs we had there, the other colleagues will also join us."* (Teacher 1b).

4. Conclusion

Deep-level teacher collaboration is a complex construct influenced by many factors. The current study revealed that in the context of tandem CLIL teaching in Estonia, the most powerful collaboration facilitators are the process-related ones, such as communication in the tandem, task interdependence and flexibility. The structural, personal, organisational and group-related factors could both facilitate and hinder teachers' deep-level collaboration, while CLIL- and guidance-related ones could only facilitate it. For example, at a structural level, allocated time and resources are beneficial for

collaboration, while the lack of time and time pressure serve as collaboration barriers. The whole system of 26 facilitators distributed across 7 levels and 13 barriers, distributed across 4 levels, should be taken into account while designing deep-level collaborative experiences for a particular context, either in a school context or in the framework of teacher education. Overall, the effect of facilitating factors is stronger than the hindering ones. However, as the effect of the barriers is most prominent at the organisational level (the only level where barriers were mentioned more frequently than facilitators), the key to significantly improving collaborative experience lies in addressing the organisational barriers.

In addition to the above, the participants found that the collaborative experience benefitted them and their learners: four positive outcomes for teachers (professional development, professional dialogue, goal achievement and motivation) and one for learners (student success) were observed. No negative effects were found.

The results of this study are specific for the Estonian context and help to spotlight the issues that the Estonian educational system currently faces, such as the need for scaffolding teacher collaboration on the organisational level. This is especially important in view of further integration of language and subject teaching that could facilitate the ongoing transition to Estonian MOI. At the same time, the results contribute to understanding professional teacher collaboration in the global context of CLIL teaching worldwide.

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KEELE- JA AINEÕPETAJATE KOOSTÖÖD SOODUSTAVAD JA TAKISTAVAD FAKTORID EESTI LAK-ÕPPE KONTEKSTIS

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Uuringu eesmärk oli tuvastada asjaolud, mis soodustavad või takistavad keele- ja aineõpetajate koostööd Eesti LAK-õppe kontekstis, ning sellise koostöö tulemused. Osalejateks olid 12 praktiseerivat õpetajat, kes võtsid osa koostööl põhinevast täienduskoolituskursusest (HTC0051/1 projekt). Neid õpetajaid intervjueeriti ja intervjuude analüüsi tulemusena tuvastati 26 soodustavat tegurit, mis jaotusid seitsmele tasandile (isiklikud, struktuursed, grupiga seotud, organisatsioonile ja protsessile omased ning juhendamisega ja LAK-õppega seotud), ning 13 takistust, mis jaotusid neljale tasandile (isiklikud, struktuursed, grupiga seotud ja organisatsioonile omased). Õpetajad tajusid koostööd enda ja oma õpilaste jaoks kasulikuna. Kõige rohkem mainitud soodustavad faktorid olid seotud LAK-õppe ja tandemi struktuuriga, mis näitab, et LAK-õppe kontekst avaldab positiivset mõju õpetajate koostööle. Kõige rohkem mainitud takistav tegur oli ajafaktor, mis viitab sellele, et õpetajad vajavad koostööraamistikku. Soodustavaid tegureid mainiti kõigil tasemetel rohkem kui takistavaid, välja arvatud organisatsiooniline tase. Seega viitavad uuringu tulemused, et koostöö kujundamisel tuleks kõigepealt keskenduda organisatsioonilise taseme takistuste kõrvaldamisele.

Võtmesõnad: koosõpetamine, õpetajate tandem, koostöö tasemed, LAK-õpe