

Review

A sociocultural perspective understanding the role of L1 in the learning of L2 through TBLT and CLIL pedagogical approaches

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Abstract

Over the past few decades, there have been an increasing number of empirical studies exploring the use of the first language (L1) in pedagogical approaches (e.g., Lee, 2018; Lo, 2015; Turnbull, 2001). However, to date relatively less research has undressed the role of the L1 from a sociocultural perspective to inform educational practitioners of theory-supported teaching practices. With a focus on two specific pedagogical approaches, namely, task-based language teaching (TBLT) and content and language integrated learning (CLIL), this paper reviews two recent studies whose findings pertaining to the role of L1 in second language (L2) learning and teaching are discussed and re-interpreted through the lens of Vygotsky's sociocultural theory of mind (1978, 1986). The discussion uncovers the multifaceted role of L1 as a cognitive, affective, and interactional mediator, which I argue could optimise the L2 learning process within both the TBLT and CLIL classroom discourse. Such a reconceptualisation of the mediating role of the L1 may shed light on the benefits of using L1 in TBLT and CLIL pedagogies and help language educators make research-informed decisions about their language use choices in the L2 classroom.

Keywords sociocultural theory; L1 use in L2 teaching and learning; TBLT; CLIL; pedagogical approaches; cognitive/affective/interactional mediation; translanguaging; ZPD; scaffolding

1. Introduction

The recent decades have witnessed an increasingly important debate over the usefulness of the first language (L1) in teaching a second language (L2). Early researchers in the field of second language acquisition (SLA) criticised the potential benefits of L1 in L2 learning. For instance, Selinker (1972) believed L1 impedes learners' interlanguage development. Similarly, Krashen's monitor theory (1982) excluded students' native language use in the classroom. However, a certain degree of consensus has recently been reached among researchers (e.g., Almoayidi, 2018; Bruen & Kelly, 2017; Turnbull & Dailey-O'Cain, 2009) regarding the role of native language in facilitating classroom interaction and helping learners understand abstract L2 concepts.

Largely, many SLA studies above considered the use of L1 in L2 pedagogies in relation to human cognition. There are relatively fewer studies discussing the role of L1 in the L2 knowledge construction process at the social or psychological level in the human mind (Sheldon, 2019). In this case, Vygotsky's sociocultural

theory of mind (1978, 1986) is of great help in elucidating the role of L1 in L2 learning due to its chief concern about how L1, as a crucial semiotic device, mediates the process of learning a target language (TL). Grounded on Vygotsky's sociocultural theory, L1 could be claimed as an effective verbal mediating tool helping to improve students' understanding, feeling, and interaction during their L2 learning process (Lantolf & Beckett, 2009). Therefore, this paper will adopt a Vygotskian sociocultural perspective to evaluate the role of L1 in three aspects including cognitive, affective, and interactional mediation.

The current paper will focus on two pedagogical approaches, namely, task-based language teaching (TBLT) and content and language integrated learning (CLIL). TBLT aims to develop L2 learners' communicative competence by involving learners in meaning-focused communication while performing tasks (Nunan, 2004). The term 'communicative competence' denotes fluency in the communicative process, linguistic (attention to language forms) and interactional competence (use of TL to participate in discourse). These competencies enable students to achieve the task goal. Hence, learning is evident as long

as students can construct and comprehend messages in spoken and written forms, attend to the TL forms, and fulfil the task goal. CLIL is a dual-focused approach which gives equal attention to content and language (Dalton-Puffer, 2011). Curricular content is taught through the medium of the TL so that students can articulate the academic concepts using academic language. To claim that learning takes place, students should demonstrate development in both academic language and content knowledge.

TBLT and CLIL are fundamental in investigating the role of L1 in the TL learning process. Both TBLT and CLIL provide a specific context for research to be conducted on students' L1 use. In studies grounded on TBLT classrooms, the role of L1 was often examined in learners' L2 task-based activities (Ellis & Shintani, 2013), while the research concentrating on CLIL lessons might explore how L1 mediates TL learning in content subjects (Dalton-Puffer, 2011). Choosing TBLT and CLIL as pedagogical approaches in analysis embodies the mediating effects of L1 in greater detail. Therefore, this paper will review two empirical studies focusing on TBLT and CLIL respectively. Both studies are selected for their sufficiently well-addressed sociocultural orientations and findings appropriate for the explication of the L1 mediator at cognitive, affective, and interactional levels. The present paper will further acknowledge the beneficial role of L1 as a mediating tool for L2 acquisition by arguing that L1 interweaves thinking with emotion in L2 learning, enables L2 learners' intersubjectivity through interaction, and provides cognitive support with which learners can analyse their TL. Accordingly, implications will be yielded to encourage teachers to adopt L1 as a tool to mediate learners' L2 interaction.

2. The role of L1 in L2 learning through TBLT pedagogy

Based on the central concepts of sociocultural theory, Bao and Du's study (2015) aimed to explore the extent to which L1 was used and interpret the functions of L1 while learners were performing tasks in task-based L2 classrooms. Eight Danish beginner-level lower-secondary school learners of Chinese were asked to complete tasks including sentence construction, information-gap, and role-play. To capture the process when learners performed tasks, video recordings were employed. Data were collected from nine lessons across the term. The recordings were then transcribed and rechecked to increase validity and reliability. Through discourse analysis, Bao and Du (2015) found that L1 use mainly occurred in learners' efforts to mediate L2 task completion, and they further identified the role of L1 during task completion into five types. Bao and Du (2015) recognised L1 as "a reliable tool that bolsters L2 acquisition" (p. 19) and advocated using L1 for its numerous benefits, such as providing cognitive, emotional, and interactional support.

2.1. L1 as a cognitive mediator in task-based L2 learning

Bao and Du (2015) claimed that L1 acted as a cognitive mediator that regulated learners' language and thought. Using L1 offered learners cognitive support to enable them to identify and assess the TL, create joint understanding, and strategise how to complete L2 tasks, as shown in the following extract.

Extract 1. L1 as a cognitive mediator in three Danish students' task-based group talk (Bao & Du, 2015, p. 16)

L: Hvis det er den sidste, mon ikke det såbare er dem alle sammen?

If it is the last one, I wonder if it isn't just them all?

Y: Jo, men I hvilken rækkefølge? "Tåmen" er det "deres"?

Yes, but in which order? "Tåmen" is that "theirs"?

S: Ja

Yes

In Extract 1, these students adopted L1 as a cognitive mediator to promote the L2 task completion together. The entire conversation initiated and sustained in L1 formulated a shared goal for effective L2 task completion. Using L1 in this TBLT classroom not only increased learners' ability to control language use but also improved performance throughout the task procedures.

Student Y identified and assessed "Tåmen" with the help of L1 private speech, thus achieving his self-regulation. When facing a cognitively demanding L2 task, this learner chose L1 as private speech, described by Lantolf and Throne (2006) as "an externalised verbal attempt" (p. 12), to gain cognitive mediation. L1 private speech here functioned as a medium to control and organise the learner's thinking process when struggling with the difficult TL vocabulary.

Student S helped the group reach a consensus by replying in L1, which consolidated the group members' existing L2 knowledge. Using L1 as a verbal mediating tool allowed learners to comment, reflect, and control the ongoing activities. Hence, L1 cognitive mediation facilitated a common understanding during the task, and at the same time, increased learner participation in tasks as discourses surrounding metatalk and metacognitive talk also increased.

Another focus of Bao and Du's study (2015) is on the task type. Table 1 displays the amount of L1 produced by learners across three different tasks.

Table 1. The amount of L1 use across three tasks
(Bao & Du, 2015, p. 16)

Tasks	L1 turns (%)	Total turns
<i>Sentence construction</i>		
Student Y-L-S	58%	84
Student O-J	29%	133
<i>Information-gap</i>		
Student Y-S	33%	143
Student O-J	32%	132
<i>Role-play</i>		
Student O-J-S	86%	120

As presented in Table 1, it is apparent that the highest percentage of L1 use took place in the role-play task. Students were required to use a wide range of vocabulary and grammatical structures fluently in this task. This led to more L1 talk, in which the externalisation of metacognition was often involved through a familiar and easy-to-understand language (Brooks & Donato, 1994). The cognitive requirements were deeply related to the task type, and this could influence which language L2 learners might choose to deal with their cognitive challenges. As a result, while role-playing, L2 learners relied on their L1 more to mediate their thinking about the TL.

2.2. L1 as a student-level affective mediator in task-based L2 learning

According to Vygotsky's sociocultural theory (1978, 1986), one's feelings are intertwined with thoughts since emotion and attitude impact the mind and behaviour. Therefore, the chosen language form has a direct implication on how the learners think, feel, and act, and thus influences the affective functions (Imai, 2010). From the lens of sociocultural theory, Bao and Du (2015) argued that learners' L1 private speech could serve as an affective mediator in L2 learning. The following extract from a TBLT class illustrates the role of L1 private speech in regulating learners' emotions while struggling with L2.

Extract 2. L1 as an affective mediator in task-based peer work (Bao & Du, 2015, p. 18)

(Jakob is a character in the task)

J: Jakob yǒu shénme?

What does Jakob have?

O: Eh, xīngqīsi Jakob yǒu eh dānmàiwén eh tǐyù wén
Oh Thursday Jakob has eh Danish class eh sport class

J: Dānmàiwén og hvad ellers?

Dānmàiwén and what else?

As shown in Extract 2, Student O got stuck in a cognitive difficulty when constructing meaning in L2. He used a Danish private speech "eh" unconsciously to convey negative emotions so that the L2 peer talk could continue to move towards the completion of the task. The private speech might reveal that he was regulating his hesitation and confusion towards L2 expressions during the thinking process. In this case, Student O's L1 private speech could be considered a student-level

affective mediator in his peer work.

There are many instances where students' use of L2 may not vividly express their thoughts and emotion (Prior, 2016). Under such circumstances, L1 is usually used to convey and mediate any undesirable feeling. Bao and Du (2015) summarised 14 episodes where the beginner-level L2 learners used L1 to "release their frustration (p. 17)" when they were incapable of remembering or finding the appropriate TL words. Using L1 enabled learners to regulate emotional dissonance during their thinking process so as to keep the peer conversation going, fulfil the L2 task goal, and eventually create an effective TBLT classroom.

Unlike in any teacher-centred approach, in TBLT L1 can be adopted as a micro-level affective mediator among students themselves. Bao and Du (2015) explained that TBLT group talk creates a learner-oriented and experiential group context where students can speak L2 and L1 freely. Speaking and expressing in L2 may be stressful since one is anxious to form thoughts and share them verbally in a new language. By contrast, constructing L1 speech is easier because learners can readily regulate their thoughts and words in a relatable language, and therefore establish their own emotional and cognitive unity. As Lorette and Dewaele (2015) agreed, L1 use during L2 peer talk "regulates learners' feelings and social skills through emotive utterances" (p. 20). This will improve learners' group talk engagement and help them attain self-identified focus. As a result, students opt to use L1 as a mediator for affective and social purposes when communicating with their peers in L2 during task completion.

2.3. L1 as an interactional mediator in peer scaffolding within the ZPD in TBLT pedagogy

In Bao and Du's study (2015), tasks were mostly designed to be slightly beyond a TL learner's unassisted efforts so that each student in the group would have the communicative needs to collaborate and achieve the task goal. Therefore, learners were commonly seen to use L1 for peer scaffolding to facilitate a zone of proximal development (ZPD). ZPD, according to Vygotsky (1978), is:

"The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86).

Bao and Du (2015) mainly concentrated on the analysis of student-student interactions. For instance, the following extract happened when a pair of learners with the same beginner-level Chinese proficiency encountered an L2 lexical problem and they could only adopt Danish as their L1 to scaffold entry into Chinese during the information-gap task.

Extract 3. L1 as an interactional mediator in the task-based peer interaction on an L2 problem (Bao & Du, 2015, p. 17)

S: xīngqī ... ja ja
xīngqī ... yes, yes
 Y: àh nej, xīngqī, xīngqī er sōndag
oh no, xīngqī, xīngqī is Sunday
 S: nej, xīngqī er dag, wǔ er hvornår
no, xīngqī is the day, wǔ is when
 Y: xīngqī wǔ er fredag
xīngqī wǔ, that is Friday

As presented in Extract 3, noticing Student S's use of L1, Student Y was trying to use the Danish word "søndag" to explain the Chinese phrase "xīngqī", but he actually misunderstood it. Hence, Student S corrected him with the help of the Danish L1 words "dag" and "hvornår" to emphasise the concepts of "xīngqī" and "wǔ". Receiving his partner's corrective feedback in L1, Student Y finally understood the correct meaning of the L2 phrase "xīngqī wǔ" and found its equivalent translation in L1 Danish. In this example, a ZPD was co-created by these two students who scaffolded each other. Student S defined the TL words in L1, demonstrating his understanding of the lexical meaning behind them. Building on the L1 translation provided by his peer, Student Y managed to generate the correct L2 phrase "xīngqī wǔ", which helped to reinforce Student S's L2 knowledge. This pair of same-level learners used L1 to achieve L2 learning and further improve their L2 competence, which demonstrates that students with similar L2 proficiency in a group can "achieve a performance level beyond each individual learner's competence level" (Bakhoda & Shabani, 2019, p. 37) through a certain amount of L1 interactional mediation.

Although whether the number of participants may affect the group interactions was not examined in Bao and Du's study (2015), there exists a correlation between the L1 use and the number of participants in peer scaffolding. As Dobao (2014) proposed, more participants in a group may bring more linguistic resources to be shared because each individual has his/her unique "strengths and knowledge" (p. 514). Dobao's (2014) claim may clarify in the above case that compared to only one learner, a group of participants using L1 to negotiate languages could pool more contextual and linguistic knowledge together, and might thus be more facilitative to the development of their L2 in TBLT classrooms.

3. The role of L1 in L2 learning through CLIL pedagogy

Adopting an illustrative case study approach, Tavares (2015) reported on the use of L1 by Miss Sitt, an experienced bilingual teacher, in her mathematics L2-medium classroom in Hong Kong. The learners in her class were Grade 9 average-ability students who

spoke Cantonese as their L1. They were in their first year to have mathematics lessons using English as a medium of instruction (MOI). By analysing the video-recorded class interaction data as well as the teacher's and students' semi-structured interview data, Tavares identified the teacher's strategic use of L1 to mediate her students' gradual adaptation to the shift in the MOI.

The particular aim of Tavares's study (2015) is to "visualise, concretise, and theorise classroom interactional discourse" in the CLIL lessons (p. 322). The inclusion of instances in which students employed Cantonese to regulate their academic English learning adds validity and reliability to this study and makes it worthy of analysis.

3.1. L1 as a cognitive mediator in the CLIL classroom

Framed within the sociocultural perspective, Tavares's study (2015) examined the role of L1 as a cognitive mediator through the lens of translanguaging in L2 classrooms. According to Li (2018), translanguaging refers to the process by which bi/multilingual speakers draw on their full linguistic and semiotic resources to make meaning. Although English was the MOI, the coherent and integral use of the L1 from students' multiple linguistic repertoires could facilitate the mental process of their L2 learning (Tai & Li, 2021; Tai, 2022). Extract 4 displays how L1 was used to mediate L2 learning cognitively.

Extract 4. L1 as a cognitive mediator in CLIL teacher talk (Tavares, 2015, p. 329)

T – Teacher (Miss Sitt)
 S – Student (S1 – Jenny; S2 – Candy)

Move

- 1 T: Very good! Now, divide both the ... Look at the board. Divide both the numerator and the denominator by Cosine θ . [*putting the two words on the blackboard – 'numerator' on top and 'denominator' below it, using strokes to divide them into syllables*]
 Okay? [*pauses for 3 seconds*]
- 2 T: Now have a look! Would the whole class please read this word out?
 [*pointing to this on the board*]
 nu/me/ra/tor
 This one:
 [*pointing to this word*]
 de/no/mi/na/tor
 [*gesturing the positioning of the two words when written in a fraction. Students read chorally as a class after the teacher.*]
- 3 T: Right! Now, in this case, 'numerator' 分子 (numerator), 'denominator' 分母 (denominator), okay? The writer has divided both the numerator and the denominator by Cosine θ . Okay, now we carry on.
- 4 T: Now after this one, you look at Step Two. The second line. Now, then they split the fractions into two. 分數 (fraction). Split the fractions into two, okay?

After the teacher's use of syllabification, learners were still grappling with the precise meaning of the target words "numerator" and "denominator". To mediate her students' understanding, Miss Sitt gave them the Cantonese translations "分子 (numerator)" and "分母 (denominator)" and further applied them in the specific context. The mention of Cantonese activated learners' linguistic cognition, as indicated by Miss Sitt's self-assurance to carry on because she was sure they had understood both the content and L2 knowledge at the end of Move 3. This evidence of learners' activated linguistic cognition indicates students' learning and development of academic language and concepts. By drawing on students' L1 knowledge, the teacher managed to clarify the complex academic target vocabulary and L2 concepts. The whole class were then on the same page, and the lesson could move on. Similarly, Miss Sitt then merged the Cantonese vocabulary "分數 (fraction)" into her English expressions and repeated the L2 sentences in Move 4. With the help of the coherent act of translanguaging, students learned to put the target vocabulary in context and grasped both the L2 concepts and academic language in a communicative unity. Therefore, the integration of L1 into L2 mediated learners' TL understanding.

According to Kern (1994), decoding words in L1 demands less attention than in L2, because when using L1, learners will synthesise "the semantic meaning" which can be "retained in their working memory for a much longer time" (p. 451). That is to say, the use of L1 lessens students' cognitive load, accelerates language processing, and strengthens the impression of semantic meaning in their minds. Kern's (1994) argument can be expounded in the CLIL classrooms where students will possibly encounter many academic words or subject-based concepts in L2 but they rarely encounter them in everyday life. Thus, learners have to translate the less familiar L2 knowledge into the equivalent L1 knowledge that they are familiar with. This is the reason why Miss Sitt, in the above example, mapped the academic target words with students' L1 understanding by using translanguaging. While learners' actual cognitive gains with the use of L1 are still under investigation by current researchers, what is beyond doubt, according to Cahyani (2018), is that using L1 in translanguaging in CLIL classrooms can bring cognitive benefits to students' L2 learning.

3.2. L1 as a classroom-level affective mediator in the CLIL classroom

Tavares's study (2015) revealed that L1 as a classroom-level affective mediator relieved learners' language anxiety and also helped to establish a positive CLIL classroom atmosphere. Extract 5 is an excerpt of classroom talk of a lesson during which students were struggling with trigonometric identities.

Extract 5. L1 as an affective mediator in CLIL classroom talk (Tavares, 2015, p. 326)

T – Teacher (Miss Sitt)

S – Student (S1 – Jenny; S2 – Candy)

Move	
1	S1: Err ... Put the Cosine θ ... [<i>Struggling to come up with a word, she looked at Miss Sitt and said in L1</i>] 即係 ... (That means ...)
2	T: Okay, you try to speak in Chinese first.
3	S1: 將個 Cosine θ ... 另外除 ... (Use Cosine θ ... Divide it by ...)
4	T: Example 9.11 ... Are you sure?
5	S1: 唔係 ... 即係 ... 將佢地兩個都除返 Cosine θ (No ... That means ... Divide both of them by Cosine θ)
6	T: Very good! Okay, can you repeat again in English? Try. [<i>Jenny continued to look at her book and hesitated. She scratched her hand, looked to a classmate on the right and said 'Err...'</i>]

Being uncomfortable with the L2 and unfamiliar with the content topic, Jenny kept answering in L1 throughout the teacher-student interaction. Tavares (2015) noted that Jenny was able to translate her L1 understanding into English precisely and completely after going through several rounds of interactional exchanges (p. 326). This indicates using L1 in CLIL lessons mediated learners' language anxiety, and thus facilitated both the TL learning and academic concept understanding.

The teacher-student translanguaging interaction above also yields insights into the affective mediating value of L1 at a classroom level. In the stimulated recall, Miss Sitt clarified that considering English was a new MOI in her class, she allowed Cantonese to be adopted on purpose while interacting with students to calm their anxiety and let them concentrate on the academic concept first prior to contemplating the L2 (Tavares, 2015, p. 327). Miss Sitt's students also reported that knowing they were not expected to use English entirely throughout the class alleviated their pressure when facing a cognitively demanding math problem and made them better adapt to the sudden shift in MOI (p. 324). Therefore, allowing students to use their L1 can help the class, to some extent, relieve their L2 anxiety and generate a supportive atmosphere for using TL in CLIL classrooms.

3.3. L1 as an interactional mediator in teacher scaffolding within the ZPD in CLIL pedagogy

Most CLIL classes are associated with the academic aspects of language and knowledge (Dafouz & Hibler, 2013). This requires students to utilise different kinds of resources, such as academic L1 and L2, from their communicative repertoires. However, drawing on multiple resources may easily go beyond learners' full capacities both cognitively and affectively. As a result, in CLIL classrooms, teachers, as more capable others, often assist their students by interacting with them using translanguaging. A beneficial way for

CLIL teachers to increase their students' L2 academic vocabulary is adopting the L1 (Liu, 2020; Vázquez & Ordóñez, 2019). Acutely aware of this, Tavares (2015) investigated L1 interactional mediation by focusing specifically on teacher scaffolding.

Extract 6. L1 as an interactional mediator through CLIL teacher's scaffolding (Tavares, 2015, p. 331)

T – Teacher (Miss Sitt)

S – Student (S3 – Alice)

Move

- | | |
|----|---|
| 1 | T: ... replace Tangent θ by 2.
Look at the board.
replace Tangent θ by 2. [<i>writing 'replace by' on the blackboard and repeating the phrase</i>]
[<i>looking at the class</i>] replace by 代替咗佢 (replace by), okay? |
| 2 | T: What about the second way? [<i>pausing for 2 seconds</i>] For this second way, what have they done here, Alice? |
| 3 | S3: At first he used the Sine θ over Cosine θ ...
err ... equals Tangent θ |
| 4 | T: And then? |
| 5 | S3: And then ... err ... [<i>Alice's gestures suggesting uncertainty</i>] |
| 6 | S3: That means change the Tangent θ equals Sine θ over Cosine θ |
| 7 | T: What happens on the third line? |
| 8 | S3: [<i>open-mouthed, remaining silent, looking at the teacher</i>] |
| 9 | T: The third line. Alternative solution. The third line. What have they done here? |
| 10 | S3: [<i>looking back at her book</i>] Err ... he put the Cosine θ on the right. [<i>gestures to the right</i>] |
| 11 | T: Right! Put the Cosine θ on the right hand side. It becomes like that. How about the fourth line? What have they done? |
| 12 | S3: Err ... Put the ... Because Cosine θ equals 2.5 metre, so the 2.5 metre ... [<i>inaudible</i>] [<i>her hand gesture suggesting that she was trying to come up with the word</i>] |
| 13 | T: to replace the ... |
| 14 | S3: to replace the Sine θ |

In Extract 6, the L1 interactional mediator foregrounded Alice's understanding of the academic language and subsequently facilitated her to describe the mathematic knowledge in L2. To make sure learners fully grasp the L2 concept of replacement, Miss Sitt repeated the L2 expression "replace by" in its Cantonese equivalence "代替咗佢 (replace by)". This parallel translation facilitated Alice's academic language learning progress. It functioned as an interactional scaffold that activated not only Alice's higher-order thinking in Move 3 but also her subsequent construction of academic English syntax by employing the L2 word "replace" in Move 14.

Miss Sitt used only a small amount of L1, but it helped Alice internalise the L2 academic vocabulary and scaffolded Alice's learning effectively. The teacher's use of L1 helped to develop learners within

their ZPD, for during the teacher-student translanguaging interaction, Alice gradually deepened her understanding of the subject, and therefore her L2 answers were progressing in the register of mathematics.

Although the use of L1 indeed scaffolds interaction, it is only a means of interactional mediation but can never become the final goal in CLIL classrooms. Lo (2015) concurred by arguing that students' mastery of subject knowledge in the L2 (but not L1) is one of the main learning objectives in CLIL lessons. As Tavares (2015) posited, the use of L2 is "the focus of output" (p. 328) while L1 use elicits learners' prior knowledge that constitutes the progressive L2 input. Therefore, although the current paper encourages the use of L1, CLIL teachers are advised to adopt L1 as a tool in an appropriate way to mediate students' L2 interaction and increase input for the L2 rather than rely solely on their L1.

4. Discussion

From the above two empirical studies, we can find the role of L1 as a mediator to L2 learning shares both commonalities and differences in the TBLT and CLIL classrooms.

In terms of L1 as a cognitive mediator, L1 in TBLT classrooms was mainly used for mediating learners' L2 social language or relevant linguistic concepts in certain tasks. While in CLIL lessons the cognitive role of L1 could be multi-functional because it was also related to organising academic contents expressed predominantly in L2 words that were comparatively more obscure and more cognitively demanding than students' everyday language. According to Cummins (2008), learners will unavoidably refer to their L1 while learning new knowledge in TL, because most of their prior subject knowledge and linguistics-related knowledge is encoded in their L1. Hence, it can be assumed that L1, as a cognitive mediator, activates learners' linguistic knowledge and regulates the relevant background knowledge to L2 learning effectively in both TBLT and CLIL classes.

Regarding L1 affective mediation, both studies revealed that the use of L1 helped to reduce learners' language anxiety in their L2 talk. However, influenced by the characteristics of these two different pedagogical approaches, the application of this affective mechanism to TBLT and CLIL classrooms could be slightly different. The use of L1 in the TBLT classroom primarily occurred at a micro level, such as the student-level L2 peer talk, and it aided students' L2 task completion (Seals et al., 2020). Yet in the CLIL classroom, the use of L1 frequently happened at a relatively macro level in the form of classroom-level L2 talk between the teacher and students (Martínez-Adrián et al., 2019). Both the teacher and students were applying their L1 to create a positive and highly-motivated classroom atmosphere (Tai & Li, 2021).

In the aspect of interactional mediation, the

distinct forms of L1 used for peer scaffolding in TBLT and teacher scaffolding in CLIL share a commonality. Even a limited amount of L1 use in task-based interactions could help a group of students with the same L2 competence reach a performance level higher than each learner's proficiency level (Johnson, 2020; Storch & Aldosari, 2010). Similarly, in CLIL teacher-led conversations, with the help of only an insignificant amount of L1 linguistic scaffolding, the teacher could activate learners' higher-order linguistic knowledge, enable learners to internalise the L2 academic vocabulary as well as the syntax, and enact their progress in the L2 academic register within the ZPD (Gallagher & Colohan, 2017; Lin, 2015). Thus, either in student-student interactions or teacher-student conversations, L1, if used appropriately, can realise its full potential as an interactional mediator to facilitate learners' L2 development within their ZPD.

5. Conclusion

After reviewing the above two research articles, it can be argued that L1 might play a major role as a cognitive, affective, and interactional mediator in both TBLT and CLIL classrooms as it optimises the L2 learning process. From a Vygotskian sociocultural perspective, we can conclude that when learners are encountering cognitively demanding linguistic concepts, emotionally challenging L2 tasks, or sophisticated TL academic vocabulary, L1 is a significant tool for both teachers and students to mediate L2 learners' language and thought, alleviate their negative feelings, and provide them with necessary scaffolding.

Understanding the role of L1 in the learning of L2 is essential, as it contributes to the debate over whether L2 teachers should adopt or exclude the L1. This paper identifies that L1 can be a mediating tool conducive to TL learning. The two reviewed studies indicate a close relationship between the L1 and L2. Therefore, teachers and students are advised to interweave the L1 and L2 appropriately so that L1 can bring more benefits to the L2 learning process. The mediating value of L1 on the learning of additional languages will help educators recognise the facilitating role L1 plays in L2 education and make research-informed choices of their language use in TBLT and CLIL classrooms.

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