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ORIGINAL PAPER

Translanguaging and trans-semiotizing as planned systematic scaffolding: examining feeling-meaning in CLIL classrooms

跨語際、跨符號為有計劃、系統的鷹架支持：探討CLIL課堂中的情感意義

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Abstract

In this article, the processes and patterning of translanguaging and trans-semiotizing in facilitating Content and Language Integrated Learning (CLIL) are examined in Cantonese-English bilingual contexts. Classroom interaction data and students' written exercises/assignments were collected to analyse the processes of feeling-meaning making among junior secondary students and their teacher in English-medium Integrated Humanities classrooms in Hong Kong. Discourse analysis on classroom data and student exercises/assignments shows that translanguaging and trans-semiotizing naturally emerge in the dynamics of feeling-meaning making and the teacher and students have challenged the dominance of English and contested the previous stabilized cultural patterns of academic and non-academic registers via orchestrating Cantonese and English, formal and social languages, visual elements and physical items in the immediate environment. It is therefore suggested that translanguaging and trans-semiotizing should not only be seen as a spontaneous, naturally occurring process but can also be incorporated in multilingual CLIL classrooms as planned systematic scaffolding.

摘要

本文針對雙語環境中學科與語言整合式教學(CLIL), 嘗試探討以跨語際、跨符號實踐作為課堂教學鷹架的過程與模式。本文以香港初中英文綜合人文(Integrated Humanities)課堂為例, 蒐集、分析課堂互動錄影及學生課後習作, 剖析師生共同建構情感意義的過程。分析表明, 師生為令課堂連貫流暢, 協調粵語、英語以及正式和非正式語言的運用, 調動視覺元素及課堂環境中的相關物件, 自然地以跨語際、跨符號實踐表情達意。英語的主導地位以及關於學術及非學術語域的傳統觀念也在無意中被挑戰。因此本文提出除了作為即時的自發現象, 跨語際、跨符號實踐還可作為有計劃及系統的鷹架支持, 運用於帶有多語言背景的CLIL課堂中。

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Keywords Translanguaging · Trans-semiotizing · Flows · Feeling · Meaning · CLIL

關鍵詞 跨語際實踐 · 跨符號實踐 · 流變 · 感情 · 意義 · 學科與語言整合式教學

Introduction

Bilingual programmes in which students learn via their second language (L2) have become increasingly popular worldwide and Content and Language Integrated Learning (CLIL) is one example of such programmes. In spite of differences in modes of implementation or sociolinguistic settings where CLIL is conducted, research has indicated significant challenges in teaching and learning content subjects in a less familiar language. One major issue pertains to challenges in the curriculum design and classroom implementation. As indicated by previous studies, CLIL classes are sometimes found to be teacher-centred and non-interactive (e.g. [32, 35, 46]) and focus on reproducing 'model' answers in English as knowledge items in assessed assignments rather than genuine dialogues and knowledge co-construction among students and teachers (e.g. [34, 46]). Therefore, this research aims to shed light on possible ways to address some of the above-mentioned challenges and investigate the processes and patterns of learning and teaching of CLIL with data from two Hong Kong junior secondary Integrated Humanities (IH) classrooms. In the following sections, I shall first delineate the state of the art on CLIL before elaborating on the theoretical frameworks of the study.

Development and challenges of CLIL in the English as a Foreign or Additional Language (EFL or EAL) contexts

There has been fruitful research on theory and practice of CLIL in various national contexts in recent decades (e.g. [2, 4, 21]). CLIL refers to 'an education approach in which various language-supportive methodologies are used which lead to dual-focused form of instruction where attention is given both to the language and the content' ([2], p.3). Among the documented challenges in implementing CLIL, one major problem concerns learners' difficulties in learning subject matter in a less familiar language while teachers may not have enough expertise and experience in teaching content-area subjects in L2 (e.g. [28]). In a meta-analysis on effectiveness of EMI education in Hong Kong, Lo and Lo [31] find that while EMI class students perform better in L2 English and affective variables such as self-concept, learning motivation, strategy, and interest, their academic knowledge in non-language subjects lag behind those from non-EMI classes. In a junior secondary classroom in Norway, it is found that while students have ample opportunities to enhance oral proficiency, they are provided with much less opportunities to read and write for enriching scientific/mathematical literacy [33]. Other concerns pertain to the availability of teaching resources, amount of teaching time, students' learning diversity, curriculum design, and classroom practices, which influence the students' learning outcome [25].

Notwithstanding challenges in CLIL, the use of everyday multimodal resources such as popular culture has been found particularly useful in facilitating foreign language learning [30]. In secondary school contexts, judicious use of L1 is reported to be facilitative for content and disciplinary literacy learning in school content subjects in

EMI or bilingual education contexts (e.g. [1, 3, 43]). In particular, Littlewood and Yu [27] argue that L1 can be the most important ally to foreign languages in language classrooms if L1 is used systematically and selectively. For another example, Laupenmühlen [15] describes how L1 is conducive for deepening the cognitive processing of biology concepts in L2 English when German university students are engaged in explicit comparison of L1 and L2 biology key terms. In the context of Hong Kong, [24] analysis on translanguaging in two EMI secondary Integrated Science classes suggests that drawing on students' familiar language and experience contributes to students' enhanced understanding of L2 subject specific concepts. In a manual written for Hong Kong EMI teachers entitled "How to have a guilt-free life using Cantonese in the English class", Swain et al. [41] suggest that planned use of L1 Cantonese can facilitate the learning of L2 English in Hong Kong secondary schools.

Despite the benefits of using L1 in foreign language teaching and EMI contexts, its use is still frowned upon in formal education. In North America and the UK, bilingual and multilingual education is often thought to be confined to keeping the learning of each language as separate and in parallel with other/s (e.g. [6, 10]). However, in the field of applied linguistics and bilingual education, the attitude towards the use of L1 in teaching of and through L2 is changing. In the next session, this new perspective of translanguaging/trans-semiotizing will be delineated.

Translanguaging, trans-semiotizing and flows in bi/multilingual multicultural settings

Translanguaging was first coined in Welsh as trawsieithu in 1994 to denote a pedagogical practice where students in bilingual Welsh/English classrooms were asked to alternate languages for easier production/reception in language learning [7]. Further developed by García [5], García and Li [6] and Lin [21, 22], the term has been gradually used to theorize the fluid, spontaneous, and dynamic multi-semiotic sense-making processes. In this connection, Lin [21] develops the notion of trans-semiotizing to conceptualize plurilingualism i.e. the well-coordinated, multisensory, whole-body nature of sense-making with verbal as well as non-verbal semiotics such as bodily movements, facial expressions, sounds and colours. In multilingual and multicultural settings, translanguaging and trans-semiotizing are found to serve important pedagogical and social functions [23]: providing pedagogical scaffolding for learning both content knowledge and academic language and affording identity and culture affirmation. For example, teacher translanguaging is found to function as a linguistically responsive approach that provides English-Spanish bilingual students with access to scientific discourse patterns in addition to science knowledge [12]. For another example, translanguaging is reported to constitute a resource for joint negotiations of science knowledge and relevant language and it is proposed that students' use of both their first and second languages can be used for tying semantic relationships between subject-specific words and everyday words [13]. Translanguaging is also found to facilitate and motivate dialoguing and knowledge co-construction in content-based education settings in EAL contexts [22, 23, 26]. Translanguaging is further found to be an integral part of language and cultural learning for a group of multilingual and multicultural students in a Karate club in London [47].

More recent development of theorization of translanguaging can be found in Lemke's [19] seminal work on translanguaging as flows. In his explication of the dynamic, dialogic and distributed nature of translanguaging, Lemke [19] draws upon Thibault's [42] distributed language view (DLV) that distinguishes first-order languaging i.e. dialogic, whole-body sense-making from second-order language i.e. different named languages as stabilized, fixed cultural and linguistic patterns. Second-order language is a result of imposition and constraint on first-order languaging from historical, political and institutional forces [42]. What should be noted is that translanguaging is a spontaneous and prevalent phenomenon in real-time sense-making as social agents will inevitably traverse between first-order languaging and second-order language:

> In a sense, all of us are translanguaging when we are engaged in real-time meaning-making; that is, we are being guided and constrained by previous stabilized cultural patterns (which come under the diverse names of styles, registers, social languages, language varieties etc.). In this sense, even the so-called 'monolingual' speakers are readily translanguaging (i.e. drawing on different styles, registers, social languages) in real-time meaning making. ([22], p.8–9)

It can be seen that translanguaging is not only limited to coordination of multiple second-order languages but also includes utilizing the various registers (e.g. social languages and academic registers) and different styles for sense-making.

In line with the dynamic and distributed view of language, Lemke [18] proposes that feelings and meanings are "distributed, situated, context-dependent, active and culture-specific" processes in languaging. According to Lemke [18], feeling and meaning are two aspects of the same material process in a dynamic, open system or "feeling as a specific kind of meaning" (ibid). In other words, feeling together with meaning are integral parts of sense-making, an amalgamation of first-order languaging and trans-semiotizing [22], and it is made across multiple timescales with human and non-human material elements. Therefore, in order to accentuate the interconnectedness between feeling and meaning, the term feeling-meaning making is used in this article to refer to sense-making. There are different categories of feelings, including emotions i.e. "feelings about our relationship to a specific object in the environment that impel us to action" (ibid), bodily feelings (e.g. anxiety, calmness, boredom), and the emotion proper involving some degree of evaluations, and the "Higher Affects" referring to self-evaluative feelings based on some cultural criteria including hope, pride and disappointment. Evaluation is thought to be highly salient with feelings and there are seven dimensions of such evaluation: Desirability, appropriateness, probability, usuality, importance, comprehensibility and seriousness [18].

Feeling-meaning making via translanguaging is found to be prevalent in arts education and fine arts. In Austin, Texas, USA, Wu [45] reports how heritage Chinese children in the Chinese class mobilize their entire semiotic repertoire, including drawings, Chinese phonetic symbols, Chinese characters, Arabic numerals and English written symbols to portray their likes or dislikes. It is found that there are recurrent patterns in the children's feeling-meaning process namely, object correspondence (i.e. using written language to foreground the drawn object) and contextual

correspondence (i.e. using both written words and drawing to recount children's experience with objects in a certain social context). For another example, Xu Bing's square word calligraphy that features English words reconfigured into the square shape of Chinese characters proves to draw upon translanguaging or transvisuality to express strong criticism towards the artist's own sociolinguistic reality [16]. Feeling-meaning making is found particularly salient in the translanguaging/trans-semiotizing dynamics of content-based education classrooms where the teacher and students come from different cultural/linguistic backgrounds. For example, Lin [22] documents how a class of Secondary 3 (Grade 9) South Asian students in predominantly Cantonese-speaking Hong Kong have eagerly engaged their Cantonese local science teacher in understanding and co-construing scientific English expressions in English-medium integrated science lessons. It is also revealed that the continuous, fluid, dynamic co-construction of learning experience (i.e. first-order languaging and trans-semiotizing) is at the same time emotionally charged and the students' emotional involvement extends their understanding of the world. Therefore, in order to better analyse the dynamic, fluid and well-coordinated flow of translanguaging and trans-semiotizing in CLIL, it is crucial to also understand the feeling-meanings underpinning and facilitating the embodied actions.

The above two sections have reviewed some major challenges in CLIL despite its rapid development in recent decades. Additionally, translanguaging and trans-semiotizing prove to be effective pedagogical strategies in CLIL conducted in diverse multilingual settings. In order to capture a full picture of how teachers and students engage in feeling-meaning making in CLIL across different timescales and triangulate results with at least two data sources [17], the study aims to address the following questions:

(1) How do students and teachers construct feeling-meaning in Integrated Humanities (IH) CLIL classroom interaction via translanguaging and trans-semiotizing?
(2) How do the students construct feeling-meaning in their after-class exercises/assignments via translanguaging and trans-semiotizing?

The study

The data reported in this article come from a larger teacher professional development project involving multiple Hong Kong secondary schools in collaboration for improving students' English writing abilities via Language across the Curriculum (LAC) in the Junior Secondary IH or Life and Society (L&S) subject (equivalent to Social Studies or General Studies in school curriculums outside Hong Kong). The present study focuses on two English-medium IH classes in a traditionally Chinese-medium Instruction (CMI) secondary school in New Territories, Hong Kong, from Secondary 1 (S1) and Secondary 2 (S2), respectively. The class in Secondary 1 (i.e. Grade 7) is an elite class, whose academic results are the highest in the grade while the Secondary 2 (i.e. Grade 8) class is a non-elite class. The IH teacher, Ms. Poon, is an IH and English teacher with over 10 years of teaching experience and has studied political science in the UK for her bachelor's degree. She and her two classes are all Hong Kong Cantonese. The S1 and S2 students' academic ability is generally above average among Hong Kong students

of the same age as Ms. Poon mentioned their school was considered by parents to be a "Band 2A"[1] school. In both the elite and non-elite IH classes, students are asked to sit in groups, facing each other so as to have group discussions easily.

The author conducted naturalistic observation of the lessons, video-taped and transcribed Ms. Poon's IH S1 and S2 lessons at the end of 2018 (see Appendix 1 for the transcription conventions). In addition, the author collected the students' assignments right after the recorded lessons: a thank-you card in English to their family members using the content knowledge and English skills they have learnt from the IH lessons. The data collection lasted for 2 months in the school and discourse analysis was conducted on the lesson transcripts and the thank-you cards. In the presentation of the selected classroom data, for confidentiality reasons, all student and teacher names are anonymized and Cantonese expressions are Romanised and translated into English. The transcripts and translation were later presented to Ms. Poon for member checking.

According to Ms. Poon's email communication with the author before the lesson observation, she adapted the CLIL units that the author's curriculum development team designed with Lin's [21] Multimodalities-Entextualisation Cycle (MEC) involving creation of a rich experiential context with multimodalities, engaging students in detailed reading of target academic texts and note-taking and finally engaging students in entextualising the experience. Both the S1 and S2 lessons presented in the study (see Tables 1 and 2) were located in Phases 2 and 3 of the MEC in which students were engaged in decoding the content knowledge and language features of the reading and entextualising their learning experience with more formal L2 English speech/writing (e.g. the S1 lesson activity to form more complex sentences and the S2 lesson task to summarize the reading in students' own words). Specially, the S1 lessons' topic (see Table 1) was "Enhancing family life: Roles and responsibilities of family members" and the teaching objectives were twofold. The content objectives were to enable students to: (1) tell the major functions of family; (2) give examples of responsibilities of the family members; (3) evaluate how well they share responsibilities in the family and (4) express gratitude to family members with reasons while the language objectives were to prepare students to: (1) tell and use the key terms about family life in context; (2) form paragraphs using the TEE (topic sentence, explanation, example) model and (3) use conjunctions to give examples and modal verbs and adverbs to describe responsibilities. The S2 lessons' topic (see Table 2) was "Stress: Good or bad?" with content objectives to enable students to tell the factors and impacts of stress and anxiety on adolescents and suggest ways to deal with stress and anxiety and language objectives to prepare students to use certain verbs (e.g. result in) to explain cause and effect and to make suggestions in sentences using modal verbs, imperatives or in prose with the structure of introduction, body paragraphs and conclusion.

[1] Hong Kong secondary schools are classified by parents and students into three bands: Band 1 (higher academic ability), Band 2 (average academic ability) and Band 3 (lower academic ability). A Band 2A school is considered to be at the top of the Band 2 and close to the Band 1 standard.

Table 1 Lesson plan for the S1 lessons on family life

Teachers	Students	Duration (min)
Activity 1: Revise what they have learnt in the last lesson p. 2 (unit overview))	Students should know the teaching objectives	2
Activity 2: 1. Numbering the lines in paragraphs 2–3 2. Focus on teaching paragraphs 2–3 (pronunciation) Paragraph 2 Tra.di.tion.al (line 5) Dis.tri.bu.tion (line 6) De.pend (line 6) Gen.der (line 6) Re.spect.ed (line 7) Spe.cif.ic.ally (line 8) Paragraph 3 So.ci.e.tal (line 12) Dis.tri.bu.tion (line 12) Re.spon.si.bil.i.ty (line 12) Du.al (line 13) E.volve (line 15)	1. Divide the words in syllables 2. Read aloud (in group and individually)	3 5
Activity 3: 1. Show some adverbs 2. Ask the students where to put the adverbs (To follow a noun? To follow a verb? To follow a preposition? To follow a connective? 3. Ask students to name some modal verbs 4. Ask students to insert an adverb into paragraphs 2–3	1. Pre-task at home (look for the meanings of the adverbs) 2. Discuss with the others and underline verbs in paragraphs 2–3 Discuss with the others	2 (discussion) 3 (presentation) 2 (discussion) 8 (presentation)
Activity 4: Ask students to form complex sentences with adverbs and modal verbs	Students my refer to p. 15 or 18	8

Table 2 Lesson plan for the S2 lessons on stress

Teacher	Students	Duration (min)
Activity 1: Revise what they have learnt in the last lesson: What make(s) me feel stressed and anxious?	Name the factors (p. 4–5 of the booklet)	3
Activity 2: p. 7 of the booklet	Discussion	5 (discussion)
1. Each group has to read one paragraph	Present in their own words	20 (presentation in 6–7 groups)
2. Summarize the paragraph and present it to the others	Try their best to answer the questions	
3. Encourage the students to summarize the paragraph in their own words		
4. Teachers can point out some key words in the passage (e.g., worries, anxieties, coping strategies, knowledge, strength, obstacles)		
5. Ask students to name some of the symptoms of stress (paragraph 1) 'opportunity' & 'stress', 'escalate', 'positive'		
6. How to transform bad stress into good stress? Ask students to give examples (paragraph 3) (To echo the school's major concern—coping with adversity)		
7. Ask students to compare the tone of paragraphs 1 & 2 (for some elite classes or students)		5
8. Point out phrasal verbs		10
Cope with, result in, depend on, turn into		
Activity 3: E-learning	Motivate learning	10
Play the games with use of Plickers		
Summary of the lesson		
Consolidation p. 7 (assignment at home)		2

Analysis

The teacher-student interaction in Ms. Poon's English-medium IH lessons illustrates a series of fluid translanguaging and trans-semiotizing practices entraining multiple semiotic resources. In what follows, I will present analyses of the classroom interaction data which showcase some of teacher/student everyday language practice [39] and delineate three patterns of translanguaging and trans-semiotizing practices in the two IH classes. For ease of demonstrating such patterns, labels that specify the involved sense-making components are used but the author does not intend to advocate separation of semiotic resources.

Trans-semiotizing with the physical environment to evoke feeling-meaning

In the two IH lessons, Ms. Poon is constantly seen using spatially distributed resources, linguistic or non-linguistic for evoking feeling-meaning. The following excerpt shows how she draws upon a clock on the classroom wall to explain an English expression for describing roles and responsibilities of family members and how verbal communication, bodily movement and physical items in the immediate environment are entrained for sustaining the flow of classroom interaction.

Excerpt 1

(Context: Ms. Poon asks the students to re-write the statements on responsibilities of family members by adding an adverb to a statement on responsibilities of family members.)

1	Student:	The mother stays at home to take care of parents-in-law wholeheartedly.
2	Ms. Poon:	Wholeheartedly. right? Okay. Good. Good. Which is the verb here? Whole class. please
3	Students:	Take care.
4	Ms. Poon:	TAKE is the verb (.) right? Okay. Thank you. (The student walks back to the seat.). Wholeheartedly, good. She means that as a wife in the family (.) she should take care of the parents-in-law wholeheartedly. How about "to look after the children"? {Two students raise their hands and Ms. Poon gestures one of them to go up.} Write it here.
5	Student:	Err
6	Ms. Poon:	She?=
7	Student:	=She needs to look after the children constantly.
8	Ms. Poon:	Good. She also needs to look after the children constantly (.) right? What is the meaning of CONSTANTLY? Yvonne?
9	Yvonne:	*bat1 dyun6 dei6* 不斷地 <Non-stop>
10	Ms. Poon:	Er?
11	Yvonne:	*bat1 dyun6 dei6*

		不斷地 < Non-stop>	
12	Ms. Poon:	Yes. That is Chinese. That is around THE ? {Her finger circles around in the air towards to the clock on the wall of the classroom.} {Students all begin to eagerly contribute their answers.}	See Fig. 1
13	Another student:	24 hours a day.	
13	Ms. Poon:	24 hours a day that means around THE: ? {Her finger circles around in the air towards to the clock on the wall of the classroom again.}	
14	Students:	Time.	
15	Ms. Poon	Not time. That is:? {Her finger points at the clock on the wall of the classroom.}	See Fig. 2
16	Students	Clock.	
17	Ms. Poon:	That is clock (.) right? C: L: O: C: K:. Around the clock. {Her hand circles in front of the class.} That is, that means 24 hours a day.	See Fig. 3

Excerpt 1 is extracted from Part 4 of Activity 3 in the S1 lesson (see Table 1) where the students are required to elaborate on the responsibilities of family members by adding appropriate adverbs to relevant statements (Figs. 1, 2, and 3). Turns 1 to 4 have framed the pattern of this activity in which one student from each group goes up to the teacher's desk and then presents their answer. In Turn 8, Ms. Poon asks for Yvonne's explanation about the adverb "constantly" that she contributed in Turn 4 "She needs to look after the children constantly". Yvonne is so eager to express her idea so she fills her gap of English lexical knowledge (not knowing the synonym for "constantly") by speaking out the Cantonese equivalent of the word so as to maintain the flow of the teacher-student interaction. As it is an English-medium IH class and the S1 students are in an elite class, which Ms. Poon explains to the author later, Ms. Poon insists on asking for the English explanation for "constantly" in Turn 12 and subsequently mobilizes all the semiotic resources available to her in the classroom space to prompt Yvonne and the rest of the class to utter the

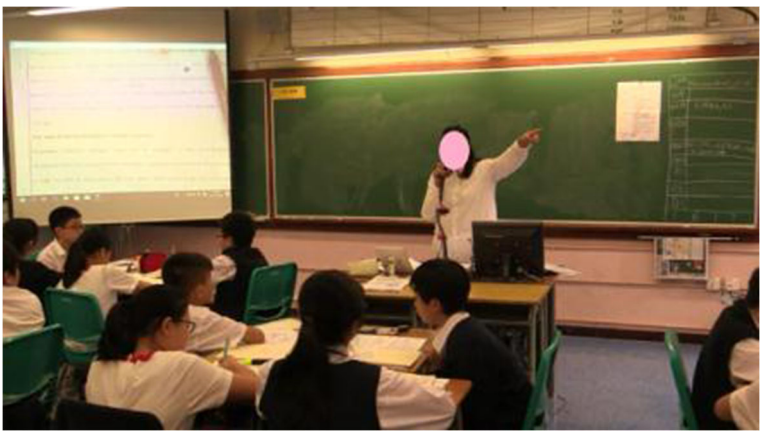


Fig. 1 Ms. Poon's finger circling towards the clock

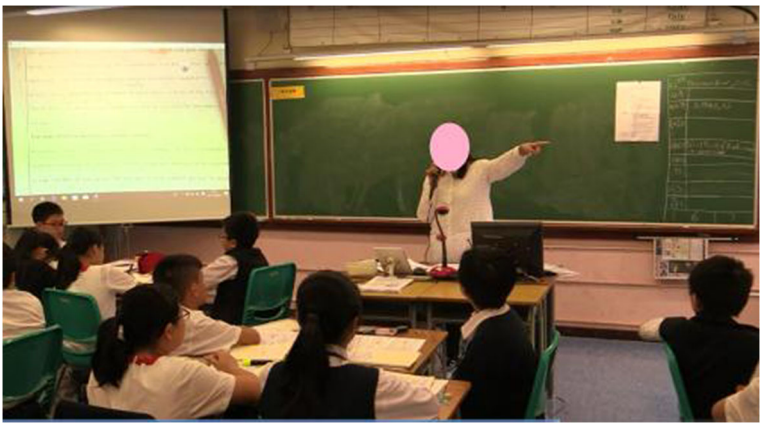


Fig. 2 Ms. Poon pointing at the wall

synonym: the acoustic sound and verbal hint (i.e. "around the"), the rising intonation after her utterance of "around the" and her hand gesture pointing at the clock on the classroom wall to elicit students' co-construction of the phrase "around the clock". The students obviously get entrained into the flow of ideas [19] and eagerly engage in meaning co-construction by saying "24 h a day" (Turn 13) and "time" (Turn 14). When Ms. Poon finds that students still cannot provide the English expression, she directly points at the clock and asks what that is. With the teacher's further trans-semiotizing hint, the students finally come up with "clock" in Turn 16. Ms. Poon subsequently repeats the co-constructed term "around the clock" with hand gesture and draws upon student's previous contribution "24 h a day" to explain the meaning of "around the clock". Additionally, the process of co-constructing the term "around the clock" can be seen as much propelled by and intertwined with students' eager bodily feeling (e.g. raising hands and shouting answers from their seats) under Ms. Poon's trans-semiotizing prompting.

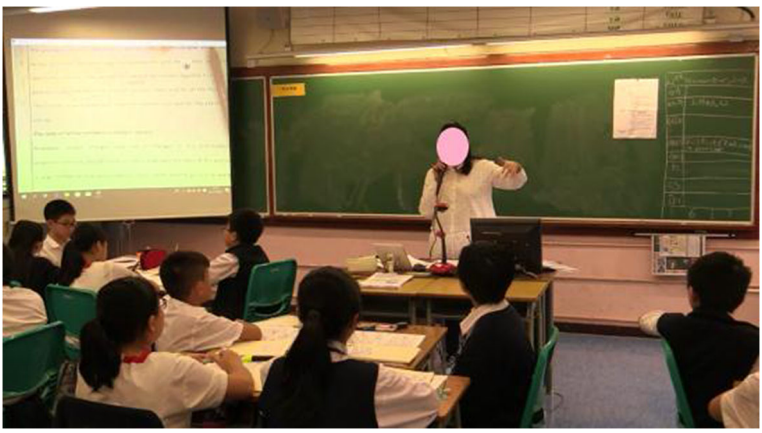


Fig. 3 Ms. Poon gesturing for "24 hours"

Trans-semiotizing with prosody and translanguaging between Cantonese and English to facilitate co-construal of target language features in CLIL

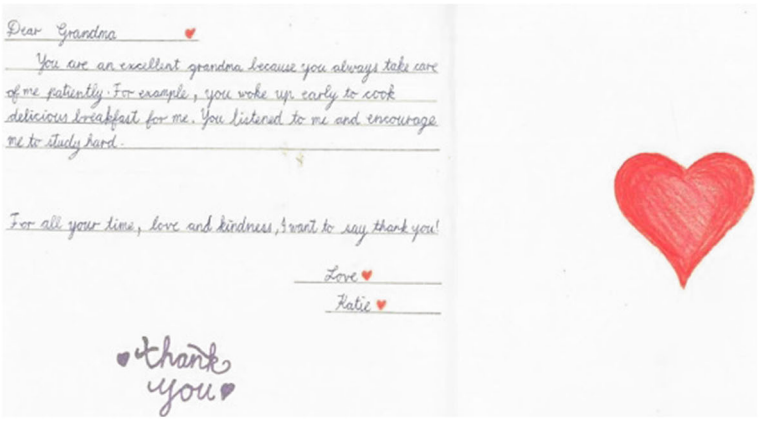
Excerpt 2 is taken from Activity 2 of the S2 lesson (Table 2) in which Ms. Poon and the students are engaged in detailed reading of the passage on both advantages and disadvantages of stress (i.e. Phase 2 of the MEC) and summarizing the passage in their own words (i.e. Phase 3 of the MEC). In particular, the flow of translanguaging/trans-semiotizing dialoguing in this excerpt converges towards a three-phase structure of English argumentative essays that students are required to apply in the thank-you card writing assignment (i.e. a topic sentence followed by argumetentation with supporting examples and then a conclusion).

Excerpt 2

(Context: Students have been given some time to read the passage on negative and positive impacts of stress and conducted group discussion on the main idea of each paragraph. One member of each group is expected to go up to the teacher's desk and present the paragraph summary.)

1	Ms. Poon:	Okay the group at the back. Do you want to say something? {gesturing towards Student 1}
2	Student 1	*yau5 sik1dong3 ge3 aat3lik6 sai2 ngo5dei6 yau5 keui1dung6lik6 heui3 hak1fuk6 kwan3naan4* (Proper stress makes us motivated to overcome difficulties.) <有適當嘅壓力使我哋有驅動力去克服困難。> {The class applaud.}
3	Ms. Poon	For example? David (.) for example?
4	Student 2	Emm=
5	Ms. Poon:	=Like next week (.) we are going to sit for the: E:? (.) E (.) XAM:? (.) E (.) XAM(.) INA:?=
6	Students	=Examination.
7	Ms. Poon	Yes (.) examination. Can you see here? {pointing to the worksheet} For example (.) if we consider examination as a chance to review knowledge *yu4gwo2 ngo5dei6 si6 haau2si3 wai4 wui4gu3 ji1sik1 ge3 gei1wui6* (If we see the exam as a chance to review knowledge) <如果我哋視考試為回顧知識嘅機會> (.) stress can be good.

In Turn 1, Ms. Poon asks Student 1 to talk about the main idea of the paragraph in English with a face-up open palm towards Student 1, both a deictic gesture and signalling encouragement to the student, as a palm-up position often signals expansive space for negotiation or invitation to participation in the EFL classroom [38]. In Turn 2, the student instantly responds in Cantonese to fill the gap in his linguistic knowledge to maintain the activity flow and then Ms. Poon subsequently suggests another student David to contribute an example that can support the previous student's answer with a logical connector "for example" spoken in a rising tone. When David fails to give an answer, in Turn 5, Ms. Poon substitutes the logical connector with a less formal preposition "like" (as in "like next week") and uses three rising intonations and lengthening syllabification (e.g. E:? (.) E (.) XAM:? (.) E (.) XAM(.) INA:?) as


Dear Grandma

You are an excellent grandma because you always take care of me patiently. For example, you woke up early to cook delicious breakfast for me. You listened to me and encourage me to study hard.

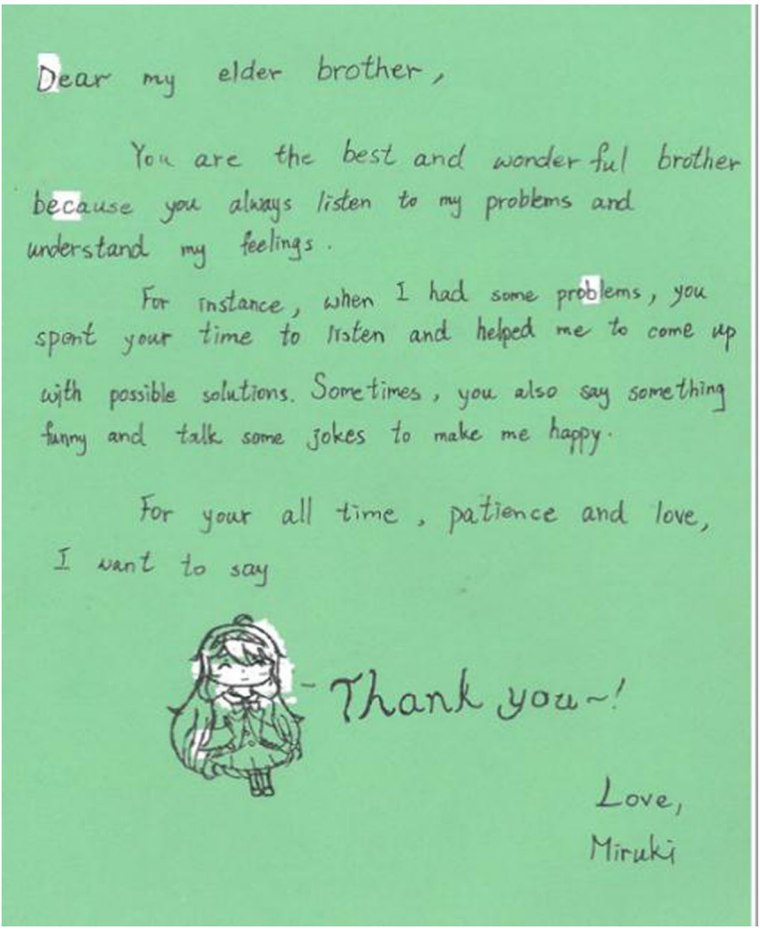
For all your time, love and kindness, I want to say thank you!

Love

Katie

thank you

a


Dear my elder brother,

You are the best and wonder-ful brother because you always listen to my problems and understand my feelings.

For instance, when I had some problems, you spent your time to listen and helped me to come up with possible solutions. Sometimes, you also say something funny and talk some jokes to make me happy.

For your all time, patience and love, I want to say

Thank you~!

Love,
Miruki

b

Fig. 4 Thank-you card samples produced by the students

Fig. 5 Ms. Poon passing the microphone to the student

contexualisation cues, which indicate her eagerness to encourage students' response. When students finally produce the example of "examination", Ms. Poon instantly points to the worksheet to emphasize how to give examples in English writing and translanguages between English and Cantonese. It can be seen that the teacher has mobilized the intonation (in "for example" in Turn 3), and syllabification together with the verbal expressions (Turn 5), the worksheet (used in Turn 7), the hand gesture (in Turn 1) and the students have used their full linguistic repertoire to co-construct the relatively complex argumentation structure in English writing. Additionally, this co-construction seems to have effected positive changes in the students' English writing ability as evidenced by the prevalent use of this three-phase structure and the explaining connective "for example" in the class' written assignments submitted after this lesson (Fig. 4).

In Excerpts 1 and 2, translanguaging and trans-semiotizing are seen to evoke feeling-meaning related to integration of content and language learning. In the next

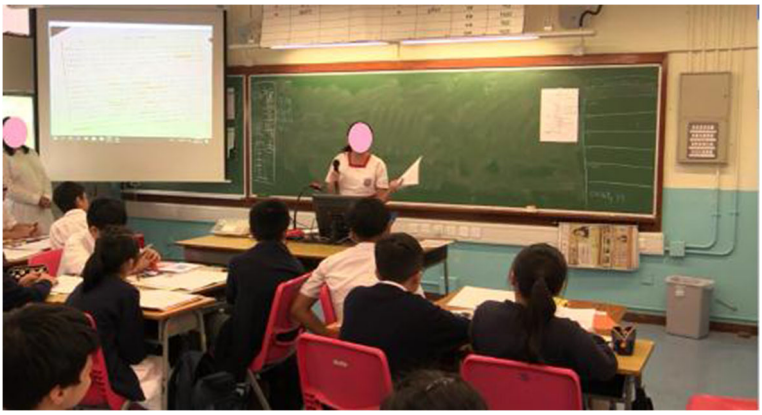


Fig. 6 The student gesturing towards her groupmates

excerpt, trans-semiotizing with bodily movements is seen to evoke feeling-meaning that resists the domination of English and supports students' sense of self-worth.

Trans-semiotizing with bodily movements for reducing negative higher affects

The following excerpt is drawn from Activity 2 of the S2 class (see Table 2) when Ms Poon asks a group representative to summarize a paragraph's main idea in English. Trans-semiotizing (i.e. the coordination of bodily movements and facial and verbal expressions) in the following example is seen to be used to reduce negative self-evaluation, or in Lemke's [18] term, higher affect, and strengthens the self-worth of a student who translanguages due to limited knowledge of English, the official medium of instruction in the classroom.

Excerpt 3

(Context: Students have been given some time to read the passage on negative and positive impacts of stress and to conduct group discussion on the main ideas.)

1	Ms. Poon:	Okay. That's good. You've already finished right? What about Paragraph One? I hope your group starts first {pointing to a group of four students on her left hand side} {A female student walks to the teacher's desk.}	See Fig. 5
2	Student:	If we have something we can't improve (.) maybe we we will have stress em em (.) it will bring negative negative things em em if (.) {whipsering "I don't know how to say it" in Cantonese *m4sik1 dim2gong2* <唔識點講> to her groupmates and looking worried}	See Fig. 6
3	Ms. Poon:	It's okay. {smiling}	
4	Student:	*ho2ji5 jung6 gwong2dung1waa2 gong2 maa3* (Can I speak in Cantonese?) <可以用廣東話講嗎?>	
5	Ms. Poon:	Yes.	
6	Student:	*yu4gwo2 ngo5dei6 yau5 hou2do1 ye5 chyu5lei5 m4dou2 yu6dou3 tiu1jin3 ge3waa2 ne1 jau6wui5 yau5 aat3lik6 la3 gam1 yu4gwo2 wai4chi4 yat1dyun6 si4gaan3 jau6wui5 ying2heung2dou2 ji6gei2 ge3 gin6hong1 ne1go3 hai6 yat1go3 sap6fan1 yim4zung6 ge3 man6tai4 lai4ge3* (When we face many things we can't handle or challenges, we will have stress. If it lasts for some time, it will influence our health, which is a very serious problem.) <如果我哋有好多嘢處理唔到, 遇到挑戰嘅話呢, 就會有壓力啦。 咁如果維持一段時間, [1] 就會影響到自己嘅健康。 呢個係一個十分嚴重嘅問題嚟嘅。> {looking at the teacher}	
7	Ms. Poon:	GOOD. Yes. {gesturing towards the student} {The class applauds.}	See Fig. 7

In Turn 2, the female student fails to express her idea in complete English sentences and has to whisper and gesture to her groupmates for help. Noticing the student's difficulty, in Turn 3, Ms. Poon then says "It's Okay" with a smile to console the student and encourages her to express in Cantonese instead. It is noted that the student's summary is much more coherent and fluent when she translanugages from English to Cantonese in Turn 6. After her presentation, Ms. Poon lifts up her right hand and opens her palm towards the student (Figs. 5, 6, and 7). Upon Ms. Poon's gesturing, the whole class applauds, passing a flow of positive evaluative feeling [18] on the student's translanguaging practice. However, when the student goes back to her seat (Fig. 8), she looks rather upset among her groupmates (Fig. 9). Her groupmate subsequently consoles her and pats her shoulder (Fig. 10). She is seen calming down and engages in the class activity again.

In this excerpt, it can be found that a strong and positive feeling-meaning is co-constructed by both the teacher and students i.e. translanguaging is encouraged in the classroom and it is equally desirable to speak in Cantonese. Trans-semiotizing is thus not a stand-alone and emotionally, politically neutral practice in CLIL classrooms: it can reduce negative self-evaluation on the students when translanguaging is done to fill the gap of the linguistic knowledge or transgress the dominant monolingual language-in-education policy. The positive positioning and evaluation by members of the community of practice [44], particularly with teachers' encouragement, is significant in sustaining the translanguaging space [20] in the classroom.

Translanguaging/trans-semiotizing between formal and social, written and visual languages

After the IH lessons, the students are also seen actively engaged in translanguaging and trans-semiotizing for feeling-meaning making in the writing assignment which intertextualizes with content and language knowledge co-constructed in the IH classes. In what follows, I shall turn to analyse the patterning of feeling-meaning making in the written assignment on roles and responsibilities of family members (see Appendix 2 for the task). In the assignment instruction, the students were encouraged to apply the "TEE model" (i.e. a topic sentence followed by explanation and examples) introduced in the CLIL unit to explain family members' responsibilities and express gratitude. Apart from the S1 students, the S2 students were also invited to submit a thank-you card to teachers/friends/family members as some would be selected to decorate the secondary school (see Appendix 3). Forty-two thank-you cards were collected from both S1 and S2 students. It is encouraging to find that students deploy their full repertoire "without regard for watchful adherence to the socially and politically defined boundaries of named (and usually national and state) languages" (Otheguy, García and Reid [36], p.3) in different manners. Specifically, the junior secondary students engage in feeling-meaning making with translanguaging and trans-semiotizing mainly with the following patterns: (1) different semiotics evoking similar feeling-meaning and (2) mutual amplification among disparate meanings and feelings.

Fig. 7 Ms. Poon gesturing towards the student

Different semiotics evoking similar feeling-meaning

Some students have combined formal written English and social language typically used on the social media, both of which share similar feeling-meaning. For example, Student A (Fig. 11) wrote:

> Dear Mum,
> You are a wonderful mum because you care me a lot.
> For instance, you not only spent time teaching me homework but also things that I haven't learn in school. You take care of me when I'm sick. You also never fail to provide support. For all your time, patience and support, I want to say
> Vito

Fig. 8 The student looking upset when she walks away

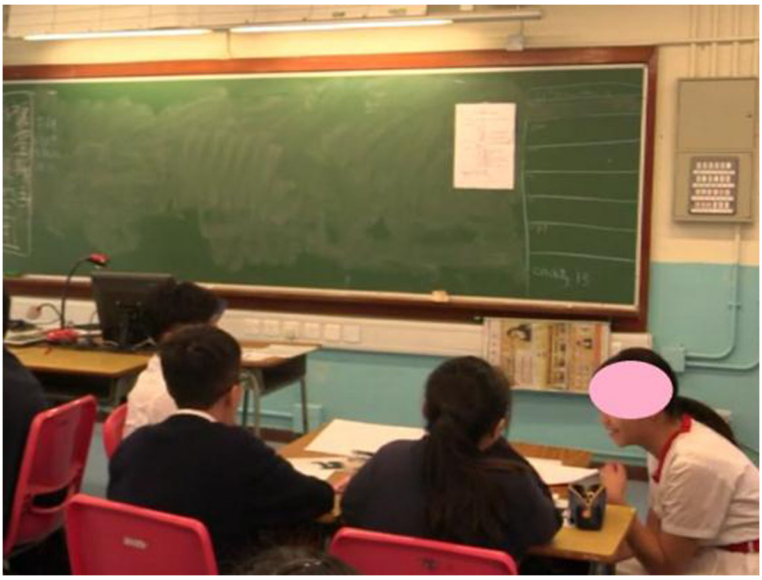


Fig. 9 The student looking upset when returning to her seat

In the written message, the student has utilized language features (e.g. for instance/for example, because) and syntactic patterns used in the reading and samples of the CLIL unit to describe his/her mother as wonderful, patient and supportive and to show gratitude to the mother. The English words "Thank you!" in red and a larger font serve as the object of the last clause "I want to say" in the message and a red heart shape is appended to the right of the main message. However, the student's agency to express his/her feeling is not constrained by the reading or the samples provided by the CLIL

Fig. 10 A groupmate consoling the student

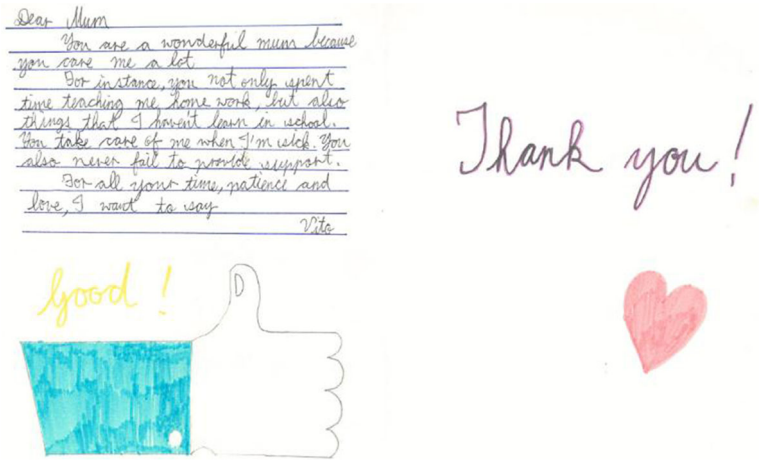


Fig. 11 Student A's thank-you card

unit. Below the main message, a blue thumb-up sign identical to the Like button on Facebook is drawn with an English word written in yellow "Good!" above it. Hayes et al. [9] conceptualize the Like button as a form of paralinguistic phatic communication (e.g. acknowledge others and observe politeness norms) on social media that "facilitates communication and interaction without specific language associated" (p. 5) and Sumner et al. [40] find that the Facebook Like button conveys multiple feeling-meanings including approving and supporting. Therefore, the student has translanguaged between the discourse of schooling and the social language and trans-semiotized between written and graphical representation of appreciation both of which evoke similar feelings and meanings. Additionally, the blue thumb-up sign circulated more often in people's social life during the recent social-media saturated decades, has come into interaction with the target text structure (e.g. the TEE model and knowledge about roles and responsibilities of family members) i.e. the stabilized language structure existing in a longer timescale in a more formal register via the medium of the student and the thank-you card. The integration of everyday and academic registers and intersection among different timescales have converged to strengthen appreciative emotion [18] made by the student.

Fig. 12 Student B's thank-you card

Mutual amplification among disparate meanings and feelings

Similar to Wu [45], some of the junior secondary school students' written works also deploy visual elements evoking feeling-meaning disparate from but still amplifying that of the written semiotics. For example, Student B has created a thank-you card as follows (Fig. 12):

The student has written the following message:

Dear Jeff
you are a wonderful friend because you always listen to me.
For example, when I am crying and no one takes care of me, you will come to comfort me, you will listen to me about my family that when I am sad.
For all your time, patience and love, I want to say thank you
love from your friend
Keith

Although Student B has relatively lower English proficiency than Student A, evidenced by some incorrect capitalization, non-standard use of punctuation and conjunctions, Student B has drawn upon a diverse range of semiotic resources to evoke rich meanings and feelings. On the cover of the thank-you card, he draws a picture of beautiful natural scenery: a bright green meadow decorated by a low white wooden fence oversees a blue sea with the big bright Sun rising on the horizon and two seagulls flying afar near the Sun. Although the feeling-meaning of the written English message revolves around description about and positive evaluation on a friend's good deeds, Student B seems to enrich this written message with visual elements on the cover strengthening his feeling towards the friendship i.e. the high saturation and cool colours of blue and green constructing vitality and peace and high saturation yellow communicating warmer emotions [14, 37] in addition to the invigorating and refreshing natural beauty. The visual elements and the written message communicate different meanings and feelings but the visual elements have enriched and amplified the emotion and evaluation [18] of the written message.

Conclusion: translanguaging/trans-semiotizing as planned systematic scaffolding in multilingual CLIL classrooms

The analyses in this article have demonstrated the potentials of translanguaging and trans-semiotizing as empowering means of co-constructing feeling-meaning for learning. Specifically, translanguaging and trans-semiotizing are shown to enable co-construal of general and subject-specific English lexical knowledge and skills of academic English writing in the IH CLIL classrooms. Observations of the scenarios in the multilingual IH CLIL classrooms also accentuate the importance of understanding the materiality and temporality of translanguaging/trans-semiotizing. The feeling-meaning making in classroom interaction cannot move forward without coordinating the material flow encompassing the acoustic sounds and bodily movements by the students and teachers, the classroom clock, the screen, visualizer and worksheets converging towards the same information. Additionally, the thank-you cards crafted

by students reveal that the same information flow can re-emerge joining old translanguaging events and new literacy practices after integrating new semiotic resources.

More importantly, the study has showcased critical teaching and learning practices in CLIL via translanguaging and trans-semiotizing. It can be seen that teachers and students co-construct and sustain the flow of feelings and meanings via translanguaging between Cantonese and English, formal and social languages and trans-semiotizing with written language, visual elements and physical items in the immediate environment. In particular, in bilingual education settings, the target language (in most cases, English) is often considered as the only legitimate language in the classroom and using students' home language is frowned upon due to a number of factors, including the one-sided application of the "maximum input hypothesis" and the alleged benefits of the separation strategy in early bilingual education studies [21]. The teacher has therefore challenged the linguistic hierarchy between English and Cantonese by establishing and embracing the translanguaging space collaboratively with her students in the CLIL classrooms by encouraging and using students' familiar language (i.e. Cantonese) in knowledge co-construction.

Additionally, students have integrated visual language with written language that they know in constructing their feelings and meanings in the written assignment, which contests the previous stabilized cultural patterns of academic (i.e. formal writing) and non-academic registers (e.g. drawing) and disturbs the ideology that old visual literacy of calligraphic language is more valuable than new visual literacy featuring a mix of texts, images, sounds and colours [14]. Therefore, in addition to seeing translanguaging as a spontaneous process or 'naturally occurring speech/action events during which participants of multilingual/multicultural backgrounds deploy their multilingual/multicultural resources … to contribute to mutual meaning making' ([23], p. 242), teachers can also be actively engaged in designing space for trans-languaging/trans-semiotizing in multilingual CLIL classrooms as planned systematic scaffolding [8] so as to empower students' freedom of speech and thought and sense of self-worth. In particular, as visual languages provide a highly accessible platform for students to construct feeling-meaning, special attention should be directed to expand students' knowledge about visual language by incorporating visual analysis (e.g. how different colours can construe different feeling-meanings in different cultural contexts) in classroom activities.

Furthermore, it is important to take note of the multimodal feeling-making process that accompanies translanguaging in EAL contexts where the language-in-education policy is predominantly monolingual. More recognition from the members of the community of practice [44] (as demonstrated by Ms. Poon's practices) on less dominant ways of feeling-meaning making and egalitarian plurilingualism [21, 29] should be advocated for releasing students' guilty feelings resulting from utilizing multimodal and multilingual semiotic resources. In this way, both students and teachers can be "guilt-free" [41] when they are engaged in the dynamic flows of multilingual and multimodal interactions in CLIL.

Compliance with ethical standards

Conflict of Interest The author declares that there is no conflict of interest.

Appendix 1: Transcription conventions (modified from [11]: 181)

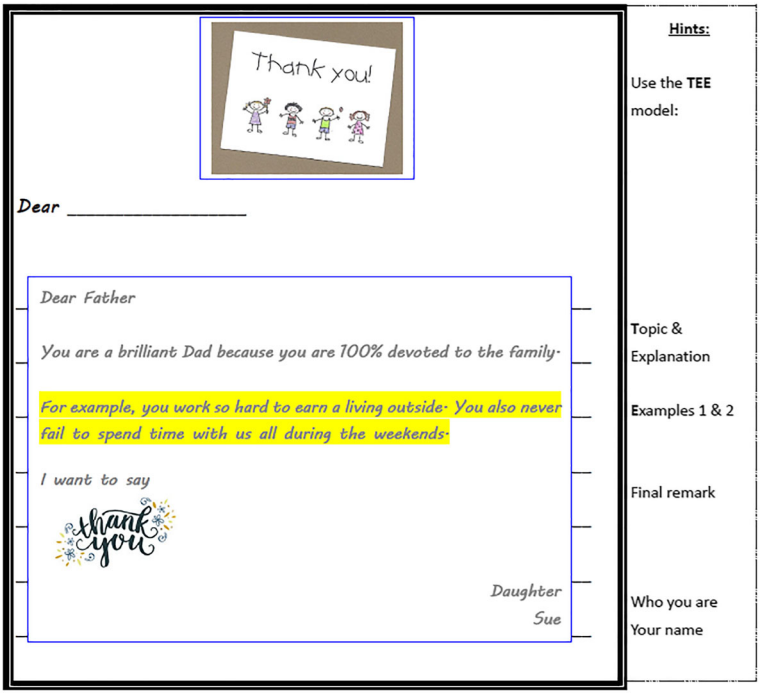
LONG	Capitals indicate emphatic stress
((laughter))	Laughter
(.)	Minor pause (of up to one sec) that do occurs not at the boundaries of clauses
(3)	Longer pause (of up to two seconds or above; the number inside the brackets indicates the length of the pause)
…/…\. . . …/…\. . .	Overlap (which originates from simultaneous speech)
( )	Unclear utterance
?	A question or rising intonation
.	Words spoken with falling intonation
:	Lengthened sounds are marked with a colon ":"
{The class laughs.}	Notes written by the author

Appendix 2: The writing task of the CLIL unit

Part 2: Roles and Responsibilities of Family Members

Task 6 Writing a thank you card to a family member

Using the thank you card template, write to one of your family members whom you wish to thank. Look at the hints on the right if necessary.



Appendix 3: School decoration with students' thank-you cards

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