Using Team Building-based Instruction to Foster EFL Learners' Motivation under the Context of Education 4.0

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Abstract

Under the context of Education 4.0, motivation for language learning takes on a range of meanings and implications that are inextricably bound up with more socially meaningful contexts. Hence, the quality of motivation matters. It is imperative that EFL education make adjustments to strengthen learners' motivation to achieve the desired learning outcomes and develop skills required in Education 4.0 era. Drawing on interdisciplinary knowledge of applied linguistics and organizational behavioral science, the current research explored the effects of team building-based instruction on EFL students' motivation. The participants of the study were 84 undergraduate EFL learners at a Chinese university. Questionnaire and open-ended questions were employed to collect data. The results showed that, on average, participants reported high mean values for each of the motivation components, indicating that team building-based instruction played a positive role in motivating most students in the course. Nonetheless, students' responses towards the components vary significantly, especially for the 'interest' scale and 'usefulness' scale. Several motivating factors that led to students' motivation to engage in the course were identified: group dynamics, project design, technology, and assessment. The research concluded that team building-based instruction should take both linguistic factors and non-linguistic factors into consideration to fully motivate and engage students. In the end, the researcher proposed implications for motivational pedagogy and practices.

Keywords: EFL motivation, team building, Education 4.0, motivational strategies, collaborative project-based learning, soft skills

1. Introduction

Within the social sciences, motivation has specific relevance for educators, inasmuch as it impacts student learning, classroom engagement, and school functioning (Dörnyei, 2020). With the advent of diversified language learning contexts, motivation for learning a foreign language is no longer simply sitting in the classroom passively and practicing listening, speaking, reading, and writing skills that might or might not be put to communicative application in the future. The contemporary L2 (second/foreign language) motivation shifts towards relational and dynamic systems approaches (Dörnyei & Ushioda, 2021). Accordingly, the scope of the study into EFL motivation has expanded to incorporate evolving contexts and contemporary notions, one of which is Education 4.0.

The change in worldwide mobility is a natural and inevitable feature today as we are in the digital era now. Aligned with the emergence of the Fourth Industrial Revolution (IR 4.0) and characterized by technology integrated teaching and learning, the concept of Education 4.0 has gained currency and credibility in recent years. It is "a global framework for shifting learning content and experiences towards the needs of the future" (World Economic Forum, 2020, p. 7). It is a new paradigm in educational context in which it focuses on the innovation and supports the teaching and learning process through the use of information, internet, and technology (Anggraeni, 2018). Several critical characteristics in learning content and experiences have been identified to define high-quality learning in Education 4.0, including "problem-based and collaborative learning, personalized learning, interpersonal skills, technology skills, etc" (World Economic Forum, 2020, p. 4). The motivation for language learning cannot be separated from such social and technological realities, as well as the sociocultural features of the constantly evolving learning environments (Dörnyei & Ushioda, 2021). These changes require EFL students' shift in learning content, experiences and motivation, moving from solely exam- or language proficiency-oriented motivation to a more future-oriented one so that they can be equipped with the key skills and better adapt to future world.

Despite the compelling fact that Education 4.0 is rapidly changing, ushering in the inarguable necessity of identifying

good quality of motivational profiles and promising models of quality education, some EFL teachers have continued to employ pedagogy addressing only the improvement of students' English language skills, i.e. listening, speaking, reading and writing. In the Chinese EFL context, according to Wang Shouren, former chairman of the National Foreign Languages Teaching Advisory Board, one of the fundamental challenges in China's English teaching was "its inadequate attention to the individual differences among students, including their diverse needs and goals, different learning styles and preferences, etc" (Wang, 2016, p. 9). Another challenge concerns with exam-oriented English education. A large number of EFL students attach great importance to CET4/6 (College English Test Band 4 and Band 6), yet fail to give due weight to their English integrated application abilities, which to some extent undermines their long-term and intrinsic motivation of learning English. The third challenge lies in heavy reliance on passive forms of learning focused on direct instruction and memorization of vocabulary and grammar in some EFL classrooms. All of these challenges raise questions about the adequacy of current EFL education in keeping pace with the aforementioned changes in Education 4.0 era.

2. Literature Review

2.1 Team Building

Team building (TB) refers to "planned activities that help groups improve the way they accomplish tasks, help members enhance their interpersonal and problem-solving skills, and increase team performance" (Cummings & Worley, 2013, p. 277). It can help members be highly motivated to perform group decisions and help groups handle vexed issues, such as apathy; lack of innovation and initiation; low participation; conflicts among members (Cummings & Worley, 2013). According to Peterson (2007), an empowered team environment could assist in fostering greater motivation within the project team, department, and organization. Likewise, team efficiency echoes motivation-need fulfillment that inspires greater confidence and resilience in members' efforts to engage in complex activities (Arshad, 2016). Empirical studies on TB and dynamics shed some light on creating and motivating the perfect team. The existing literature on TB focuses on corporate productivity and quality of work life while its' application in school life has not drawn much attention.

Actually, peer groups may also have a great impact on individual motivation (Dörnyei & Ushioda, 2021). As Wigfield et al. noted, research evidence suggests that peer groups are often attracted to "similar others and strengthen one another's motivational orientations, and where these motivational orientations are learning or achievement-focused, the effects of such social influence can be very positive" (as cited in Dörnyei & Ushioda, 2021, p. 29). For example, Wentzel, Muenks, McNcish, and Russell (2017) found that "at the individual level, student's perceptions of peer supports are likely to impact student effort and mastery goal orientations by way of internalized values and academic self-efficacy" (p. 42). Maming (2019) showed that the integration of team-based learning with collaborative strategic reading fostered EFL student engagement in the classroom.

In the context of job disruption and increased polarization, education systems must adapt to the changes and play a critical role in fostering soft skills that enable students to be well equipped for future societies. As one of the important soft skills, team building skill has tremendous potential to better prepare students for the future of work, improve productivity and enhance social cohesion, which are in line with Education 4.0 skill sets. Satpathy, Dash, and Mohapatra (2020) argued that in view of Education 4.0 requirements, English Language teaching should be redesigned in such a way which can "enhance the employability skills of graduate" (p. 9) and give priority to soft skills cultivation, including team building skills. Tran, Ruhalahti, and Korhonen (2021) investigated teaching and learning soft skills in Education 4.0 in the Vietnamese context. The results demonstrated that Vietnamese college students viewed teamwork and communication skills as one of their favorite skills, and these skills also affected their online learning.

2.2 EFL Motivation

Vonkova, Jones, Moore, Altinkalp, and Selcuk (2021) offered a comprehensive analysis and synthesis of recent EFL motivation research trends, with 24 countries and economies involved. The followings are some of their key findings. In terms of theories, they found that Dörnyei's L2 motivational self-system was most frequently employed by researchers, followed by self-determination theory. With regard to the emerging themes, the relationship between learning and teaching approaches with EFL motivation was a dominant theme in the retrieved literature. The second major theme concerns the relationship between EFL motivation and other interconnected variables (e.g. engagement, achievement, attitudes, demographic, etc.). Other themes include motivational behavior and the L2 self, EFL motivation among different language backgrounds. With the prevalence of digital technology, studies exploring the effectiveness of technology integrated EFL teaching as well as its motivational impact on EFL learning have become a hot research topic in recent years.

2.3 Education 4.0

Driven by Industrial Revolution 4.0 where technology is incorporated into every facet of human lives, Education 4.0 is typically featured by technology-facilitated teaching and learning and supposed to affect all the domains (Alakrash & Razak, 2020). Puncreobutr (2016) interpreted the essence of Education 4.0 as laying emphasis on the learning management that helps the students to develop their skills by utilizing the new technology, following societal changes. Fisk (2017) summarized nine trends happening in the era of Education 4.0: space-unbound learning achieved by internet, customized learning designs, empowerment of students to bring their own devices that make blended learning possible, knowledge application and skill acquisition via project-based and cooperative learning, exposure to actual learning, data interpretation, renewal of assessment techniques, incorporation of students' opinions into curriculum development, and promotion of students' autonomous learning.

Specific studies have been carried out that focus on foreign language learners' motivation under the context of Education 4.0. Wangi and Ashadi (2021) explored classroom management practices for enhancing EFL students' academic motivation in response to Industrial Revolution 4.0, including collaborative learning, technology-based learning, contextual learning, and student-centered learning. Pupah and Ashadi (2021) proposed a number of practical methods of fostering and sustaining English language learners' extrinsic and intrinsic motivation in Education 4.0 era by taking both personal factors and contextual factors into account. Anggraeni (2018) identified three challenges that impeded the promotion of several characteristics of Education 4.0 in English for Survival classes. These hurdles were classified into three categories: lecturers' teaching techniques, students' speaking skill, and facilities.

As aforementioned earlier, Education 4.0 is inextricably bound up with information and communication technology, therefore, studies of the role of technology in Education 4.0 has become a hot research topic. Alakrash and Razak (2020) examined the effects of technology on motivation level of Arab EFL students by redesigning the traditional instruction-centered classroom to a technology-enhanced environment in response to the demands of Education 4.0. The results showed that students were highly motivated in the teaching and learning process. Aisyiyah, Ikawati, and Hakim (2021) illuminated what it takes to be 4.0 EFL learners by analyzing how successful Indonesian EFL learners adopted technology to improve their English proficiency. The finding indicated that the easy access to technology provided students with more authentic learning environment. "To be EFL learners in this 4.0 era requires learners to take the initiative, as well as be smart and wise regarding the technologies" (p. 49). Forasmuch as the interrelatedness of motivation, language learning, and technology, the integration of technology in Education 4.0 into the EFL classroom will enhance learners' motivation when implemented purposefully (Vonkova et al., 2021).

Another hot research topic focuses on teaching-learning process and assessment to promote Education 4.0 skills and English language skills. Fauzia and Putro (2021) introduced a metacognitive strategy to enhance the reading comprehension of EFL students in Education 4.0. Hananingsih and Priyana (2021) illustrated numerous advantages of cooperative learning for language learners in Education 4.0, such as enhancing motivation, improving social skills, etc. Pratama and Ashadi (2021) recommended several practical technological tools to conduct alternative assessments in English language teaching under the criteria of Education 4.0.

Despite the plethora of research that explored L2 motivation based on Dörnyei's L2 motivational self-system, there is "a tendency to separate the individual from external social contexts in the L2 motivation field" (Yang & Liu, 2021, p. 1). Much less is known about how to foster EFL students' motivation and how to construct the ways in which their motivation is sustained in Education 4.0. The current research explores the effects of TB-based instruction on EFL learners' motivation under the context of Education 4.0.

3. Methodology

3.1 Setting

The setting of this current research is a tertiary-level EFL classroom in a full-time foreign language institute offering regular undergraduate education located in Zhejiang Province, China. Almost all the non-English majors in the institute are required to take college English as a compulsory course for four semesters. Apart from acquiring required credits, students also faced high-stakes test: CET4/6. The course taken by the EFL students in the institute is New Target College English: Integrated Course. According to the syllabus, this integrated course is designed for non-English majors and conducted four periods every week.

3.2 Participants

The participants of the study were 84 undergraduate EFL learners in the same grade majoring Chinese language and literature. They were preceded the 17-week team building integrated EFL teaching, starting from September 2021 to

early January 2022. All participants filled out the questionnaire and answered open-ended questions. Further demographic details are presented in Table 1.

Table 1. Demographic profile of the participants

	Number	Percent
Grade: *Sophomore*	84	100%
Gender		
Male	14	16.67%
Female	70	83.33%
Age(mean)	19.8	/
Years of English learning(mean)	11.7	/
Pass rate of CET4	74	88%

The data is as of Dec 31, 2021

3.3 Research Method

To explore how TB affected EFL learners' motivation to engage in the integrated course, both questionnaire and open-ended questions were employed in the current study. The 'MUSIC (acronym for the words e**M**powerment, Usefulness, **S**uccess, **I**nterest, and **C**aring) Model of Academic Motivation Inventory' developed by Jones (2009, 2018, 2021) was adapted. The wording was altered slightly in some cases to match the context more closely (e.g., the word 'course' was changed to 'team building-related activities and projects'). Besides, with regard to the caring scale, the researcher added five more items to measure caring of teammates so that it measured caring of both the instructor and peers. The researcher has already obtained the written permission of Jones via email to use the MUSIC Inventory. The quantitative questionnaire enabled the researcher to investigate EFL learners' overall perceptions of the five motivational components, whereas the qualitative open-ended questions allowed the researcher to have a more holistic view of how TB-based instruction affected students' motivation.

3.4 Data Collection

The questionnaire was administered online to the 84 participants at the end of the course. They rated on a 6-point Likert-type scale. Reliability statistics and KMO & Bartlett's test are shown in table 2 and table 3.

Table 2. Reliability statistics of each scale

Scale	N of Items	Cronbach's Alpha
Empowerment	5	.874
Usefulness	5	.909
Success	4	.888
Interest	6	.954
Caring	12	.930

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.881
Bartlett's Test of Sphericity	Approx. Chi-Square	2752.968
	df	496
	Sig.	.000

As shown in Table 2 and Table 3, the reliability coefficient value of each sale is greater than 0.8, thus indicating that the reliability quality of the research data is high. KMO and Bartlett tests are used to verify the validity. KMO value is 0.881 (p<0.05), greater than 0.8, so the validity is also good.

4. Design of TB-based Instructional Strategy

The team building technique is adapted from Tuckman's (1965) four stages of team development model: "Forming, Storming, Norming, and Performing" (p. 396). This model, a form of organizational behavioral science, is aimed at "serving a conceptual function as well as an integrative and organizational one" (p. 396), and can be used to identify the key factors of team construction and development. According to Tuckman, all the stages are necessary and insurmountable and the team must go through the above stages in a series of experiences such as establishing relationship with other group members, meeting conflicts and challenges, developing ingroup standards and cohesiveness, solving problems, etc.

Stage 1: Forming teams and assigning the projects

Teacher can establish flexible groups based on student interest, language proficiency, learning styles, or sometimes student free choice. To break "ice", teacher invites all the newly-formed teams to the classical Spaghetti Tower Marshmallow Challenge: to build the tallest tower possible that would support a marshmallow in 18 minutes with 20 sticks of spaghetti, one yard of string, one yard of tape. After the challenge, each team reflects on this experience.

Next, teacher introduces functions of teams, team leader's roles and team member functions, characteristics of an effective team, as well as benefits of teams to an organization and to the EFL class.

At the end of the forming workshop, teacher explains learning objectives of each unit and assigns the unit theme related project in scenario which might happen in students' future lives or career. At the same time, teacher should establish clear evaluation rubrics so that students know what is expected for a top performance. Given the interconnectedness of language learning, technology, and motivation, each team is encouraged to establish a virtual mobile learning community merging offline learning modes with online platforms or tools. In this way, they can interact with team members anytime and anywhere. To scaffold student learning, teacher can upload autonomous learning resources associated with the project to the platform, such as learning courseware, websites, videos, etc. to help them move from passive learning to active learning. Teacher helps students become aware of what they lack of for completing the project, thus arousing their interests and motivating them to become more active and engaged in studying the input materials both online and offline.

The following is a team project sample designed by the researcher.

(Background) Apart from economic development, enhancing cultural communication is also a goal that countries in the Belt and Road region want to achieve through integrating Chinese cultural elements into the local curriculum.

Suppose The Office of Chinese Language Council International is recruiting and selecting Volunteer Chinese Teachers. Your team is eager to apply for the Volunteer Chinese Teachers Program. Please consult online resources to check what requirements to meet. After taking a series of training, you are qualified and dispatched to teach Chinese at a Confucius Institute overseas. Your team is supposed to document the entire application process, then design a 20-minute project to introduce a typical representation of traditional Chinese cultures and present it in English to several foreign teachers in the university. You can select any traditional Chinese culture you are interested in and present your project in whatever form you prefer: visual presentation, direct interaction with foreign teachers, a creative dramatic or musical presentation, etc.

Stage 2: Navigating storms

During the storming stage, individuals might try to assert themselves or argue about appropriate directions for the team, who might receive challenges from team members. Interpersonal conflicts and dissonance are supposed to be handled at this stage, otherwise they would lower the team's motivation to move forward. To identify specific problems in each team unit, the team building checklist can be utilized by teacher on a regular basis. One of the common problems identified among the participants was social loafing. Accordingly, the following instruction techniques were adopted by the researcher to reduce social loafing: a game called "Ship, Captain, and Crew" (Scannell & Scannell, 2010); the three Cs of motivation: collaboration, content, and choice (Rothwell, 1999); peer evaluations, which sent a signal that there would be consequences for non-participation.

Stage 3: Establishing group norms

Before carrying out the project, each team is supposed to develop an overall work plan, including a common goal, timeline, role assignment and expectations, props needed, budget, etc. To ensure smooth implementation of the project, each team is empowered to establish their group norms that members should abide by, including focus on the task and participation; attendance at group meetings and discussions; dependability and shared responsibility; contribution to solving problems; research and information sharing, etc.

Stage 4: Completing and presenting the project(s)

In the process of project implementation, teacher, as the facilitator, should supervise and track the learning process of each team aided by digital technology and provide precise and personalized help as needed. After the completion of the project, each team presents their project aided by multimedia technology and in whatever form they prefer in English. Then each product and performance will be assessed based on pre-established criteria. In the end, teacher provides feedback to each team and asks them guiding questions to help them monitor their own learning in terms of what to do next, what to focus on, what needs further improvement in the next project.

5. Results

In order to have an overall picture of the participants' perceptions of the MUSIC components, SPSS (version 23) was utilized to analyze the quantitative questionnaire data. The range of responses, standard deviation, mean values are presented in Table 4 and the frequency of each scale is shown in Figure 1 to Figure 5.
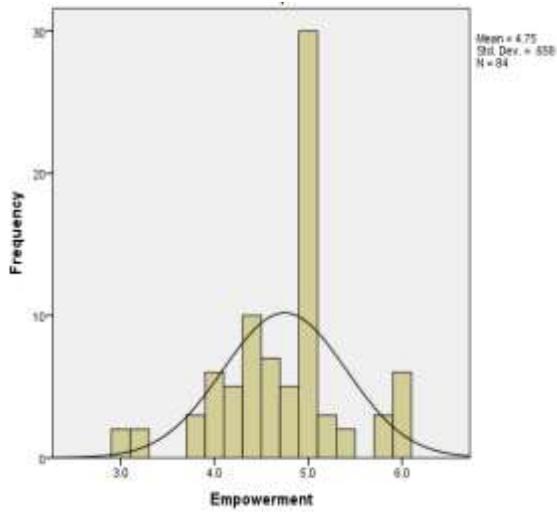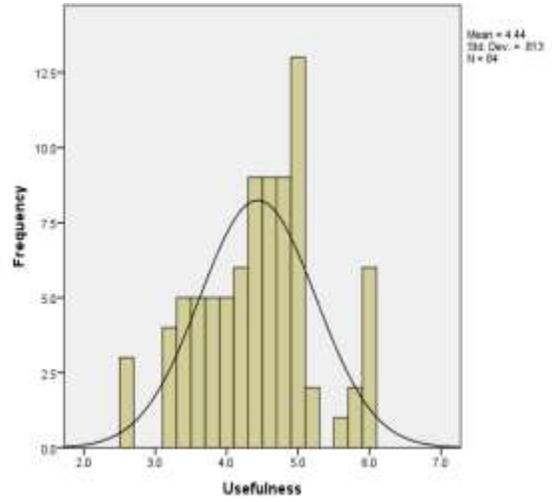
Figure 1. Frequency diagram of empowerment

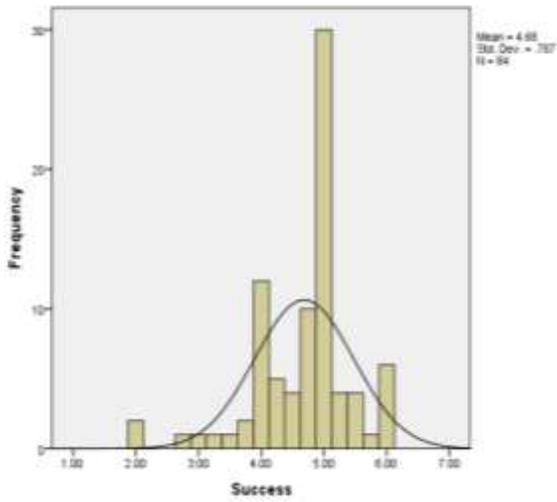Figure 2. Frequency diagram of usefulness
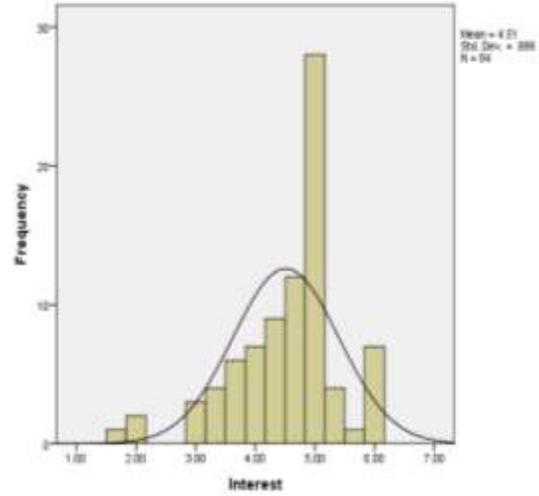

Figure 3. Frequency diagram of success
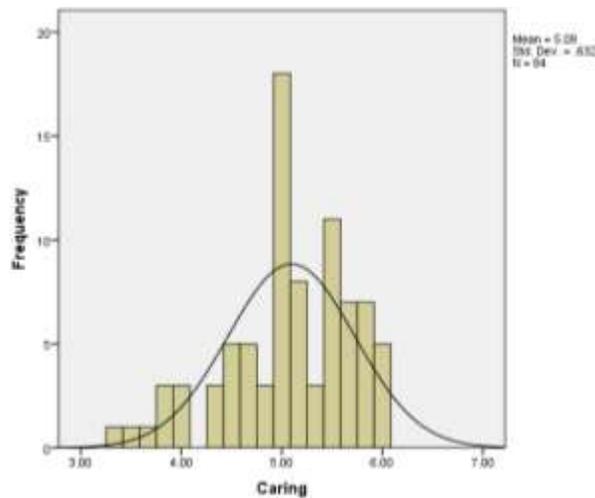

Figure 4. Frequency diagram of interest

Figure 5. Frequency diagram of caring

Table 4. Descriptive statistics

Items by Scale	Range	Minimum	Maximum	Mean	Std. Deviation
Empowerment 1	4	2	6	4.68	.853
Empowerment 2	3	3	6	4.90	.738
Empowerment 3	4	2	6	4.64	.900
Empowerment 4	3	3	6	4.76	.801
Empowerment 5	3	3	6	4.75	.726
Usefulness 6	3	3	6	4.55	.842
Usefulness 7	4	2	6	4.63	.915
Usefulness 8	4	2	6	4.17	.955
Usefulness 9	4	2	6	4.45	1.057
Usefulness 10	4	2	6	4.38	.968
Success 11	4	2	6	4.73	.883
Success 12	4	2	6	4.63	.954
Success 13	4	2	6	4.83	.889
Success 14	4	2	6	4.55	.911
Interest 15	5	1	6	4.43	1.067
Interest 16	4	2	6	4.57	.973
Interest 17	4	2	6	4.52	.963
Interest 18	5	1	6	4.52	1.024
Interest 19	4	2	6	4.44	.910
Interest 20	5	1	6	4.58	.960
Caring 21	4	2	6	4.96	.857
Caring 22	3	3	6	5.14	.763
Caring 23	4	2	6	4.99	.784
Caring 24	5	1	6	5.33	.841
Caring 25	4	2	6	5.46	.768
Caring 26	3	3	6	5.23	.717
Caring 27	4	2	6	5.05	.835
Caring 28	4	2	6	5.14	.823
Caring 29	5	1	6	5.11	.919
Caring 30	4	2	6	5.01	.843
Caring 31	4	2	6	4.93	.916
Caring 32	5	1	6	4.77	.974

From Table 4 and Figures 1-5, it can be seen that:

The mean value of EMPOWERMENT scale is 4.75 (SD=.658, N=84) with normal distribution curve; for the items in the scale, the means are relatively high, ranging from 4.64 to 4.90;

The mean value of USEFULNESS scale is 4.44 (SD=.813, N=84) with normal distribution curve; for the items in the scale, the means are relatively high, ranging from 4.17 to 4.63;

The mean value of SUCCESS scale is 4.68 (SD=.787, N=84) with normal distribution curve; for the items in the scale, the means are relatively high, ranging from 4.55 to 4.83;

The mean value of INTEREST scale is 4.51 (SD=.886, N=84) with normal distribution curve; for the items in the scale, the means are relatively high, ranging from 4.43 to 4.58;

The mean value of CARING scale is 5.09 (SD=.632, N=84) with normal distribution curve; for the items in the scale, the means are high, ranging from 4.77 to 5.46.

To explore how TB-based instruction affected students' motivation, content analysis was conducted to analyze two open-ended questions for the participants: Q1. In the process of working on team projects and TB-related activities, what aspects fostered your motivation to engage in the course? Or how TB-based instruction benefited your learning experience? Q2. What were the main difficulties or challenges you encountered that hindered your engagement in the course? With regard to the first question, some answers expressed the same idea with just different wording. The researcher coded and categorized the answers into four broad themes: group dynamics, technology, assessment, project design. Table 5 is a summary of the responses under each category. The criteria for choosing those responses among the others include their representativeness, authenticity, conciseness, and intelligibility.

Table 5. Categories and summary of the responses to the first open-ended question

Categories	Summary of the Responses
Group Dynamics	
Group cohesiveness	＊ When you know that a team moves together, you will have a sense of belonging and solidarity, which cause better engagement.
Group decision-making	＊ Team members can freely put forward their own novel and interesting ideas, the collision of thoughts sparks new ideas, and in the end reach a consensus.
Role expectation	＊ My own ideas and efforts are recognized by other team members, which increased my self-efficacy. ＊ Team members have clear responsibilities and roles to promote better participation.
Conflict management	＊ In this process, I have learned some skills on how to handle the team member conflicts. ＊ In team building, I know the importance of effective communication, and learned some interpersonal communication skills through the workshop, so that I can better participate in the following activities.
Leadership	＊ The experience as a group leader has enhanced my sense of responsibility. ＊ Whenever there is divergence of views, the team leader would lead us to discuss together.
Teamwork spirit	＊ Through team building, my team spirit and collaboration awareness are improved, which will also be useful for me when I step into the society in future.
Peer influence	＊ The mutual care, encouragement among team members made me participate actively in the projects.
Technology	
Virtual learning platform	＊ The integration of QQ and Xuexi Tong in college English course is in line with the learning characteristics of contemporary college students. We can communicate and share with team members anytime and anywhere when we work on the project. Very convenient and efficient.
Online learning resources	＊ Before the team project or activity is released, the teacher will publish relevant autonomous learning resources on the mobile learning platform, prompting me to take the initiative to learn.
Digital literacy	＊ Through online cooperative learning, I can use smartphone to help my English learning, makes the learning not tedious. ＊ Improved some of my basic skills, such as making English speech on stage, technical skills in making PowerPoint for the project , editing short videos and so on.
Assessment	
Formative Assessment	＊ Every time the team project or activity is released, the teacher will simultaneously inform us of the project evaluation criteria, requirements, deadline, etc., which helps our group to carry out team projects in a high standard and planned way.
Goal-orientedness	＊ The teacher will give feedback on our product and make us reflect on the existing problems, which lead to goal setting for the next project. ＊ The team has a common goal, rather than fighting alone.
Project Design	
Project usefulness	＊ Improved my autonomous learning ability in learning English. ＊ The MBTI recommended by the teacher was useful to me because I found the appropriate role in the team and knew what kind of career was my personality suitable for. ＊ Improved some of my basic skills, such as making English speech on stage, technical skills in making PowerPoint for the project , editing short videos and so on. ＊ In the process of "doing", it improved my English comprehensive application ability. ＊ Learned how to resolve conflicts with team members effectively through practice ＊ Team spirit and collaboration awareness are improved, which will also be useful for me when I step into the society in future.
Project control	＊ can make decisions about the project ＊ Opportunity to select a project theme that our team is interested in ＊ Offer choices of the products to be presented by each team.
Project theme	＊ Topic or the theme of the projects was interesting.
Project evaluation	＊ English teachers often employ performance assessments with units of study that include multimodal products

As for the second open-ended question, the main difficulties or challenges participants encountered in team building

are classified into eight aspects, which may explain why some participants were less motivated or engaged in this context: Low English language proficiency level in terms of poor English oral expression abilities when discussing with team members or making group presentation, limited vocabulary, insufficient project-related knowledge reserve (*N=14*); Poor communications: lack of effective communication, not listening to each other, or not willing to talk due to social phobia or introverted personality (*N=9*); Task allocation and coordination problem (e.g. who should present the project in class) (*N=9*); Low commitment to team goals or general lack of interest, responsibility or engagement of team members (*N=5*); Conflicts between team members caused by dissension (*N=4*); Time management challenges: sometimes too busy to participate in team project(s), hard to coordinate team members' different time schedules, time assigned by the instructor to accomplish the project is not enough (*N=4*); Difficulty in selecting team members and project themes (*N=3*); Confusion or unfamiliarity about project assignments (*N=3*).

6. Discussion

The findings indicate that to some extent TB-based instruction played a positive role in fostering most students' English learning motivation. Nevertheless, the range of responses towards the MUSIC components vary significantly, especially for the INTEREST scale and USEFULNESS scale, suggesting that students can experience and perceive these components differently. It may be owing to the fact that some students deemed working within a team a realistic simulation of a real-world work experience and what they learned in the team projects was useful to their future, while others thought otherwise. In addition, some students were test-oriented, nor did they plan to pursue an English-related career; hence they regarded the team building activities and projects less useful and less interesting. Thus, it is essential to design the team projects in a way that can be perceived as useful and associate with as many interests as possible in order to fully motivate students.

Findings from the qualitative data indicated that team building offered students numerous motivating opportunities to engage in the course. These opportunities occurred at various times in the team building process and were categorized into four broad themes: group dynamics, technology integrated learning, assessment, and project design. One of the prominent findings of this study is that the use of technology in team building could boost language learning motivation. This finding is in consistent with previous researches conducted by Alakrash and Razak (2020), Vonkova et al. (2021). Not only did technology offer the students flexibility, convenience, pleasure, and individualized learning, but also aligned with the learning styles and behavior of contemporary youngsters. Education 4.0 is featured by technology-enhanced teaching and learning. Therefore, utilizing technology in English learning is also one of the current trends and requirements of Education 4.0. Nonetheless, every coin has two sides. It should be mentioned that inappropriate use of technology, together with the disruption from social media may have detrimental effect on maintaining students' motivation in the Educational 4.0 era.

The important role played by team building in bolstering student motivation highlights the relevance of the vivid discipline of group dynamics, which can affect students' perceptions of MUSIC model components either positively when designed effectively or negatively if designed inappropriately. Motivation for foreign language learning in Education 4.0 era requires students to go beyond basic mastery of language skills and curriculum and expand their own learning and opportunities to meet the demand for high-profile graduates. Based on the qualitative data, team building taught the participants various soft skills, including cooperation, communication, conflict management, leadership, public speaking, etc.

7. Implications

In view of the above difficulties or challenges, it is crucial that TB-based instruction take both linguistic factors and non-linguistic factors into consideration to fully motivate and engage students. The followings are pedagogical implications regarding ways to utilize TB more effectively in this context. Firstly, students' English language proficiency should be taken into account while facilitating TB-based instruction and assessment, and instructors differentiate instruction accordingly, both at individual level and group level. For example, for students who have not yet fully developed language mastery, instructors can allow them to express and demonstrate the projects with occasional first-language oral responses to build their communicative confidence. Secondly, the team building checklist should be utilized by instructors on a regular basis to identify specific non-linguistic problems in each team unit, such as poor communications, social loafing, etc., then instructors intervene accordingly through team building workshops to help students master some effective communication and conflict resolution skills. Thirdly, instructors can get everyone involved in the team by assigning each member special, meaningful tasks or sometimes allowing group members the freedom to choose their role. Fourthly, instructors can make good use of the latest information technology or platforms most students find entertaining and interactive to facilitate TB-based instruction. These technology or platforms create motivational opportunities for peer collaborative learning and knowledge

co-construction. To measure students' performance in the team building process more consistently and efficiently, some technological tools can also be utilized by instructors to conduct formative assessment, such as e-portfolio, Xuexitong (a learning platform integrating mobile teaching, mobile learning, mobile social networking, and mobile assessing). Last but not least, to sustain EFL students' motivation, instructors should inform the usefulness of English learning by firstly designing team projects in scenario which might happen in students' future lives or career goals, then providing opportunity to apply knowledge and work collaboratively on a 'real-word' project.

8. Conclusion

Under the context of Education 4.0, motivation for language learning takes on a range of meanings and implications that are inextricably bound up with more socially meaningful contexts. Hence, the quality of motivation matters. This study revealed that TB provided numerous motivational opportunities for students, which made most of them perceive that they were empowered, that the coursework was useful, that they could be successful, that they were interested, that they were cared. TB-based instruction can not only be effective means of fostering EFL students' language learning motivation, but also play an important role in fostering their 'hard' skill, such as digital skill, as well as human-centric skill, such as interpersonal skills. These are all associated with the skills needed in Education 4.0 era.

EFL Teachers are agents of change and play a critical role in motivating language learners. Therefore, they should ascertain how adaptations must be made to foster EFL students' motivation under the context of Education 4.0. Classroom practices that advocate student-centered learning, appropriate utilization of information technology, collaborative learning, empowerment, usefulness, success, interest, and caring are recommended to EFL instructors.

Different from those language motivation researches which were based on the L2 motivational self-system or socio-educational model of language education, this study integrated interdisciplinary knowledge of applied linguistics and organizational behavioral science and included the contextual factor-Education 4.0 into the L2 motivation research paradigms. The findings of this study may shed light on how to foster and maintain EFL students' motivation under the context of Education 4.0, as well as how EFL teachers redesign the English course towards Education 4.0.

This study is not without limitations. The most palpable limitation was the homogeneity of the population with only 16.67% male students, and all the participants are the same major and in the same grade. The findings may have limitations in generalizability. Future research may use a larger sample with a more diversified population to address this issue. Second, this study focused on five components of motivation while other factors may be taken into account in future research.

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