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Learning and Innovation Skills: Examining English as Foreign Language Teachers' Classroom Practice in Two Bale Zones and Robe Town High Schools

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Abstract

Learning and innovation skills, or the 4Cs (critical thinking, communication, collaboration, and creativity), are essential for preparing students for future careers in the 21st century. This study aimed to examine English as a Foreign Language (EFL) teachers' classroom practice of learning and innovation skills. An explanatory sequential design was used in this study, involving 25 teachers and 297 Grade 9 students. Structured observation, questionnaire, and semi-structured interview were used to collect data. Quantitative data were analyzed using SPSS version 25, and the outputs of observation and teachers' responses were reported as percentages, while mean and standard deviation were described for students' responses. Thematic analysis was made for interview results, followed by coding, categorizing, and interpreting. Finally, quantitative and qualitative findings were triangulated. The results of the study revealed that learning and innovation skills were infrequently practiced, as the majority of the calculated data fell within 'never' to 'sometimes'. Besides, survey results indicated that critical thinking (M=2.79, SD=.81158), communication (M=2.67, SD=.78912), collaboration (M=2.77, SD=.80971) and creativity (M=2.65, SD=.77871) skills were practiced occasionally. Among these skills, critical thinking skills, followed by collaboration skills, were the most frequently practiced skills. The findings further indicated limited use of digital technologies in classroom instruction. The use of digital technologies was also another missed ingredient. Thus, sufficient classroom practice of learning and innovation skills and digital technologies should be provided for students. Further research should also be conducted on how to fully engage students in practice and examine factors contributing to limited classroom practice.

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1. Introduction

There is a potential shift that focuses on readiness for future careers and fostering student-centred learning, whereas digital technologies are used as a connector in using with learning and innovation skills, or 4Cs (critical thinking, communication, collaboration, and creativity). This paradigm shift, in which globalization and digitalization demand higher-order thinking skills (Eaton, 2010; Fullan et al., 2020; OECD,

2019), focuses on learning to do and live together, in which 21st-century learning and innovation skills play a great role. Foundation skills which include basic skills (reading, writing, speaking, and listening), thinking skills (thinking creatively, making decisions, solving problems, knowing how to learn and reasoning), and personal qualities (individual responsibility, self-esteem, sociability, self-management, and integrity) are the cornerstone for the formation of learning and innovation skills

(Kane et al., 1990; SCANS, 1990). Repeatedly modified by various organizations, the important frameworks of learning and innovation skills, ICT, and life and career skills (Chu et al., 2017; Trilling and Fadel, 2009) were established, whereas the learning and innovation skills framework is the important and comprehensive framework that is used in this study.

Since the constructivist philosophical assumption emphasizes that lifelong learning occurs through social interaction as learners use their experience and learn together (Akpan et al., 2020), the direct teaching of learning and innovation skills, followed by engaging students in practice, enhances students' proficiency in these skills. This is also true of language learning, in which learning should be experience-based, and the development of learning and innovation skills is process-based and project-based learning (Orak and Al-khresheh, 2021). To do so, teachers themselves need to be trained on how to implement learning and innovation skills to engage their students effectively in practicing learning and innovation skills. Linked to the constructivist philosophical view, social-cultural theory advocates that language learning is boosted through peer or social interaction (Akpan et al., 2020), and this plays a great role in students' development of learning and innovation skills.

Thus, a blended model of learning and innovation skills in the English Language Teaching (ELT) classrooms is important to prepare students for future careers (Saimon et al, 2023). From their findings, it is possible to conclude that practicing basic language skills is not enough for the success of students' language development, and learning and innovation skills should be integrated into teaching-learning materials to help teachers to engage their students in practice. This idea is equivalent to the fact that the integration became effective through interweaving interdisciplinary themes (global awareness, financial literacy, civic literacy, health, and environmental literacy), core

subjects, and learning and innovation skills (Trilling and Fadel, 2009). If this is done, students can master academic content and language in an advanced way for different purposes, and understand and share others' languages, cultures, and religions (Chu et al., 2017; Fullan and Langworthy, 2014). In line with this idea, Tai (2023) found that the majority of EFL students recognized the significance of learning and innovation skills in their English learning.

The literature also indicates that Ethiopian students and teachers need to prepare to respond to global challenges (Cavner and Fox, 2014). This aligns with the aim of the Ethiopian curriculum, in which incorporation and implementation in the curriculum and ELT classes are emphasized (MoE, 2018; MoE, 2020). However, Yohannes (2019) found that the critical thinking proficiency of learners was weak. Though Yohannes' (2019) findings support the present study's findings, it negates the present study in that it focuses only on a single category of learning and innovation skills. This was an unsolved problem or gap, and the present study sought to comprehensively examine the four categories of learning and innovation skills and to fill the identified gaps by examining the extent to which these skills are enacted in ELT classrooms.

2. Theoretical Framework

This study underpins constructivist and social constructivist theory, which are used to provide the base of the current study's methodological approach and for data interpretation. Constructivism believes that knowledge is built up by every individual when they participate in the world and in social interaction with other individuals, whereas collaborative knowledge construction is believed to be built up when learners actively interact with each other and participate in problem-solving using pair work or group work (Akpan et al., 2020). The learning

and innovation skills in teaching are foreseeable, which are implemented using different strategies. The framework was utilized in the construction of a questionnaire, classroom observation, and semi-structured interview, which shows that knowledge is constructed collaboratively. So, the data were analyzed based on social negotiation and interaction in collaboration to facilitate mutual knowledge

construction.

Moreover, as shown in Figure 1, because constructivist pedagogy is contingent on local contexts, effective implementation involves the skillful adaptation and flexible use of instructional technologies as well as strategies that respond to learners' changing needs.

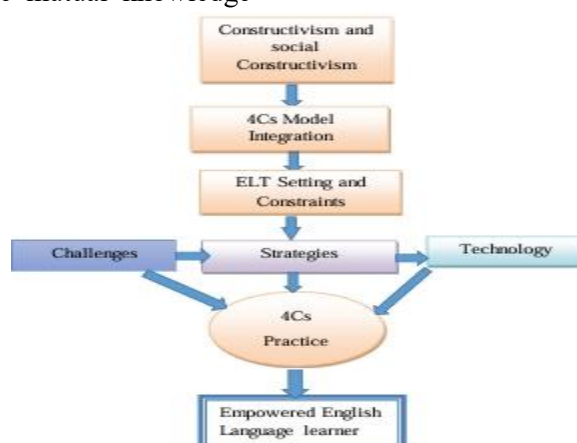


Figure 1:Theoretical Framework (Trilling and Fadel, 2009)

3. Materials and Methods

3.1. Research Design

The explanatory sequential design starts with focusing more on collecting quantitative data, followed by qualitative data employed in this

study (Creswell and Creswell, 2018). Collecting and interpreting the data obtained through structured observation and questionnaires were done first for quantitative methods, followed by the data obtained through semi-structured interviews for qualitative methods, as shown in Figure 2.

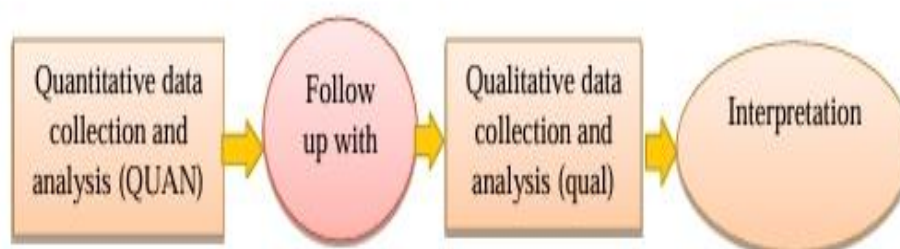


Figure 2:The Process of QUAN→qual Research Design

3.2. Population of the Study

Grade 9 English language teachers and students in the Southeastern Oromia region, particularly in Bale, East Bale Zones, and Robe

Town high schools, were the target population. These subjects were selected because they were closer to the information than other bodies and were well acquainted with English language teaching-learning in actual classrooms.

3.3. Sample Size and Sampling Techniques

Evidence proposed that 10-20% is enough to take a sample from a large population (Gay et al., 2012; Singh, 2006). As shown in Table 1, 7 schools (11%) were selected randomly. On the other hand, 25 teachers were selected using the census sampling technique (Sankar, 2010),

Table 1:Population and Sample

Study Area	Total Schools	Sampled Schools	Sample				Sample of sample			
			Name of Sampled Schools	Teachers	Students	Classrooms	Teachers	Students	Class-	Interview
East Bale	23	2	1. Ginnir Ifa Boru	4	439	8	4	44	1	1
			2. Akasha	2	135	4	2	13	1	1
Robe Town	9	3	1. Galama	3	480	7	3	48	1	1
			2. G. Wako Gutu	4	627	10	4	63	1	1
			3. Fincha Bamo	4	270	4	4	27	1	1
Bale	32	2	1. Dinsho	5	694	11	5	69	1	1
			2. Baha Biftu Ali	3	327	5	3	33	1	1
Total	64	7		25	2972	49	25	297	7	7

and 297 (10%) of the students were selected using systematic sampling, and all of them filled in the questionnaire provided. In addition, 7 classes were selected randomly for observation, whereas 7 English language teachers were selected randomly for interview.

3.4. Instruments of Data Collection

Structured observation was adapted comprehensively from Kapkir (2024), NDCTE (2023), P21 (2016), Scoular (2020), and Shabrina and Astuti (2022). The duration of time for the whole observation was 840 minutes, whereas the observations were conducted in 7 classes, and each classroom was observed thrice. A closed-ended questionnaire was designed based on the identified related literature and the objectives from a rubric developed by NDCTE (2023), P21 (2016), Ravitz (2014), and Trilling and Fadel (2009). The questions were translated into the students' mother tongue. A five-

To collect reliable data, first, activities designed under the language skills were assessed and recorded to realize the availability of the learning and innovation skills. Then, a permission letter was received from the Department

point Likert scale (1=Never, 2= Rarely, 3=Sometimes, 4=Often, 5 = Always) was applied (Boone and Boone, 2012; Cretu, 2017; Kothari, 2004) to measure the behaviors and responses from different sources. Moreover, a semi-structured interview was adapted from the interview questions used by Ekinici (2019) and Kapkir (2024), considering all research questions to gather qualitative data to support the data obtained through structured observation and the questionnaire.

3.5. Data Collection Procedures

of English, Madda Walabu University. Specifically, the sampled schools and teacher-respondents were informed, and data collectors were given awareness on how to fill the questionnaire. Then, classroom observation was

conducted. Next, a questionnaire was administered to all sampled respondents and collected, counted, and computed. Then, teachers were interviewed individually. Finally, the collected data were calculated and interpreted.

3.6. Method of Data Analysis

Quantitative data were computed using SPSS version 25, and descriptive analysis was made for descriptive statistics, mean and standard deviation (students' responses), and frequencies and percentages (teachers' responses and observation results). The percentage was interpreted using the median $N/2+1$ (Singh, 2006) as a threshold to conclude where the majority of the data fell. Thematic analysis was made through transcribing, organizing, coding, and categorizing into themes and interpreting. Finally, qualitative findings were triangulated with quantitative results.

3.7. Validity and Reliability

The validity of the tools is checked through triangulation, long-term observation, and peer debriefing (Andrade, 2018; Creswell, 2014; Nowell et al., 2017; Shenton, 2004; Stahl and King, 2020; Taherdoost, 2016; Zohrabi, 2013). Reliability (confirmability in qualitative methods) of tools is increased through triangulation and audit trail for both quantitative and qualitative methods (Zohrabi, 2013), whereas the reliability of the quantitative tool is $\alpha = .864$.

4. Results

4.1. Results of Classroom Observation

The findings, which were obtained through classroom observation, teacher's and student's questionnaire reveal multifaceted understandings of the application of learning and innovation skills in the EFL classroom.

4.1.1. Extent of Critical Thinking Skills Practice

In Table 2, the researcher and co-observer agreed that the practice of critical thinking skills generally occurred between "Rarely" and "Sometimes." However, item 7 (asking important questions that clarify various points of view) had the highest frequencies for the researcher: "Sometimes" (42.9%) and "Often" (33.3%). The co-observer results mirrored these findings: "Sometimes" (38.1%) and "Often" (33.3%). The frequencies of item 5 (analyzing how parts of a whole spoken ideas interact) and item 8 (incorporating feedback properly into the lesson) concentrated in "Rarely" and "Sometimes" and were rarely "Often" or "Always". The results indicate a lower to moderate frequency of usage.

Table 2: Extent to Critical Thinking Skills Practice

No	Critical thinking Skills	Researcher's Observation						Co-observer 's Observation						
		F/ %	1	2	3	4	5	T	1	2	3	4	5	T
1	Inductive reasoning is applied as appropriate to the situation.	F	3	10	6	2	0	21	2	4	13	2	0	21
		%	14.3	47.6	28.6	9.5	0	100	9.5	19	61.9	9.5	0	100
2	Deductive reasoning is applied as appropriate to the situation.	F	1	6	7	7	0	21	2	4	9	5	1	21
		%	4.8	28.6	33.3	33.3	0	100	9.5	19	42.9	23.8	4.8	100
3	The teacher utilizes information accurately for the problem immediately.	F	3	7	6	4	0	21	2	10	7	1	1	21
		%	14.3	33.3	28.6	19	0	100	9.5	47.6	33.3	4.8	4.8	100
4	Using information creatively as soon as the problem occurs.	F	1	6	10	4	0	21	4	9	3	3	2	21
		%	4.8	28.6	47.6	19	0	100	19	42.9	14.3	14.3	9.5	100
5	Analyzing how parts of a whole spoken ideas interact to produce general conclusions.	F	4	7	9	1	0	21	5	8	8	0	0	21
		%	19	33.3	42.9	4.8	0	100	23.8	38.1	38.1	0	0	100
6	Analyzing how parts of a whole written ideas interact to produce overall outcomes.	F	4	5	8	4	0	21	4	9	5	2	1	21
		%	19	23.8	38.1	19	0	100	19	42.9	23.8	9.5	4.8	100
7	Asking important questions that clarify various points of view.	F	2	1	9	7	2	21	1	4	8	7	1	21
		%	9.5	4.8	42.9	33.3	9.5	100	4.8	19	38.1	33.3	4.8	100
8	Incorporating feedback properly into the lesson.	F	3	6	2	8	2	21	2	7	4	7	1	21
		%	14.3	28.6	9.5	38.1	9.5	100	9.5	33.3	19	33.3	4.8	100
9	Making reflection critically on past experiences to inform future progress.	F	2	1	6	9	3	21	1	6	6	4	4	21
		%	9.5	4.8	28.6	42.9	14.3	100	4.8	28.6	28.6	19	19	100
10	Coping positively with praise, setbacks, and criticism.	F	3	7	6	3	2	21	4	8	3	6	0	21
		%	14.3	33.3	28.6	14.3	9.5	100	19	38.1	14.3	28.6	0	100

Keys: F=Frequency, %=Percentage, 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always, T=Total

4.1.2 . Extent of Communication Skills Practice

The use of communication skills as displayed in Table 3 appeared to be a very neglected part of classroom practice; a substantial number of item tally counts were either “Never” or “Rarely” on the checklist. Digital technologies being used in instruction, item 17, received a score of “Never”

by both the researcher 76.2% and co-observer 81%. Effective oral and written communication were two items for which more than half of the tallies scored either “Never” or “Rarely”, with “Often” and “Always” being virtually unobserved. Thus, it could be argued that communication skills are not systematically practiced and encouraged in an observable form.

Table 3: Extent of Communication Skills Practice

No	Communication Skills	Researcher’s Observation							Co-observer ‘s Observation						
		F/%	1	2	3	4	5	T	1	2	3	4	5	T	
11	Ideas are articulated effectively using oral communication skills in a variety of forms and contexts.	F	5	11	4	1	0	21	4	10	7	0	0	21	
		%	23.8	52.4	19	4.8	0	100	19	47.6	33.3	0	0	100	
12	Ideas are expressed successfully using written communication skills in a variety of forms and contexts.	F	9	7	5	0	0	21	5	11	5	0	0	21	
		%	42.9	33.3	23.8	0	0	100	23.8	52.4	23.8	0	0	100	
13	Communication is used to motivate students.	F	6	7	7	1	0	21	5	8	8	0	0	21	
		%	28.6	33.3	33.3	4.8	0	100	23.8	38.1	38.1	0	0	100	
14	Develop and communicate new ideas to students efficiently.	F	5	10	6	0	0	21	2	13	6	0	0	21	
		%	23.8	47.6	28.6	0	0	100	9.5	61.9	28.6	0	0	100	
15	The teacher knows when it is appropriate to listen and when to speak.	F	5	10	5	1	0	21	6	10	5	0	0	21	
		%	23.8	47.6	23.8	4.8	0	100	28.6	47.6	23.8	0	0	100	
16	The teacher listens effectively to decipher the meaning of a message.	F	5	10	5	1	0	21	3	13	5	0	0	21	
		%	23.8	47.6	23.8	4.8	0	100	14.3	61.9	23.8	0	0	100	
17	Technology is used for instruction.	F	16	4	1	0	0	21	17	3	1	0	0	21	
		%	76.2	19	4.8	0	0	100	81	14.3	4.8	0	0	100	

Keys: F=Frequency, %=Percentage, 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always, T=Total

4.1.3. Extent of Collaboration Skills Practice

In Table 4, there seemed to be some conflict in trends regarding collaboration. Firstly, in relation to collaboration values (item 23 and 25), the researcher saw the behaviors associated with those categories as "Often" or "Always" 57.2% and 81% of the time, respectively. In contrast, structural

collaboration techniques (items 19 and 21) were only observed as "Never" or "Rarely" 80% of the time. This might indicate that positive feelings and thoughts are experienced surrounding collaborative practices; however, those actual collaborative methods (such as group work, feedback procedures) are not as frequently incorporated.

Table 4: Extent of Collaboration Skills Practice

No	Collaboration Skills	Researcher's Observation							Co-observer 's Observation						
		F/%	1	2	3	4	5	T	1	2	3	4	5	T	
18	There is punctuality and active participation.	F	15	0	0	4	2	21	0	16	0	2	3	21	
		%	71.4	0	0	19	9.5	100	0	76.2	0	9.5	14.3	100	
19	Students are organized in pair and group to complete a task together.	F	8	9	1	1	2	21	9	10	1	0	1	21	
		%	38.	42.9	4.8	4.8	9.5	100	42.9	47.6	4.8	0	4.8	100	
20	The teacher collaborates effectively with the teams.	F	9	8	2	0	2	21	6	12	3	0	0	21	
		%	42.9	38.1	9.5	0	9.5	100	28.6	57.1	14.3	0	0	100	
21	Group input is incorporated into the work.	F	8	6	5	0	2	21	5	12	2	2	0	21	
		%	38.1	28.6	23.8	0	9.5	100	23.8	57.1	9.5	9.5	0	100	
22	Group feedback is included into work.	F	8	8	1	2	2	21	4	12	3	2	0	21	
		%	38.1	38.1	4.8	9.5	9.5	100	19	57.1	14.3	9.5	0	100	
23	There is valuing the individual contributions made by each group member in collaborative work.	F	6	2	1	9	3	21	1	6	2	8	4	21	
		%	28.6	9.5	4.8	42.9	14.3	100	4.8	28.6	9.5	38.1	19	100	
24	Diverse views are negotiated and balanced to reach workable solutions.	F	9	3	0	5	4	21	5	5	0	4	7	21	
		%	42.9	14.3	0	23.8	19	100	23.8	23.8	0	19	33.3	100	
25	There is respect of cultural differences to work with students from a range of social and cultural back-grounds.	F	3	1	0	11	6	21	5	5	0	6	5	21	
		%	14.3	4.8	0	52.4	28.6	100	23.8	23.8	0	28.6	23.8	100	

Keys: F=Frequency, %=Percentage, 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always, T=Total

4.1.4. Extent of Creativity Skills Practice

As shown

Table 5 creativity skills are considered to be a low activity in terms of creativity skills where both the observers agreed that the creativity is often used in none and seldom in most of the items like item 27 (using creativity

techniques to generate ideas) and item 28 (developing new ideas) where the summation of no and seldom is greater than 60% for both of the observers, the creative skill in terms of Often and seldom categories is rarely considered.

Table 5: Extent of Creativity Skills Practice

No	Creativity Skills	Researcher Observation							Co-observer Observation						
		F/%	1	2	3	4	5	T	1	2	3	4	5	T	
26	A wide range of idea creation techniques like brainstorming are use	F	5	9	5	1	1	21	7	5	7	2	0	21	
		%	23.8	42.9	23.8	4.8	4.8	100	33.3	23.8	33.3	9.5	0	100	
27	The teacher creates new and worthwhile ideas using both incremental and radical concepts.	F	8	9	4	0	0	21	8	6	7	0	0	21	
		%	38.1	42.9	19	0	0	100	38.1	28.6	33.3	0	0	100	
28	Ideas are elaborated to enhance creative efforts.	F	8	9	4	0	0	21	8	10	3	0	0	21	
		%	38.1	42.9	19	0	0	100	38.1	47.6	14.3		0	100	
29	Ideas are evaluated to enhance creative efforts.	F	7	10	4	0	0	21	6	12	3	0	0	21	
		%	33.3	47.6	19	0	0	100	28.6	57.1	14.3	0	0	10	
30	Tasks are prioritized and completed tasks without direct oversight based on his /her own creativity.	F	8	10	3	0	0	21	7	10	4	0	0	21	
		%	38.1	47.6	14.3	0	0	100	33.3	47.6	19	0	0	100	
31	Social differences are leveraged to create new ideas.	F	5	6	5	4	1	21	7	5	4	4	1	21	
		%	23.8	28.6	23.8	19	4.8	100	33.3	23.8	19	19	4.8	100	
32	Cultural differences are used to create new ideas.	F	3	11	4	2	1	21	3	11	6	1	0	21	
		%	14.3	52.4	19	9.5	4.8	100	14.3	52.4	28.6	4.8	0	100	

Keys: F=Frequency, %=Percentage, 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always, T=Total

4.2. Results of Classroom Observation

4.2.1. Extent of Critical Thinking Skills Practice

To clarify the use of both percentage (for teachers) and mean and standard deviation (for students) in Table 6-9, a footnote is clearly put under each table to guide the reader. Besides, while interpreting the data, the results obtained from teachers' and students' responses are interpreted separately, even though they are discussed under a single paragraph. Teachers' self-reported data as put in Table 6 largely aligned with the observations, with most skills falling into the "Rarely" to "Sometimes" range. For example, 52% of teachers reported "Using inductive reasoning" (item 1) "Rarely,"

Table 6: Extent of Critical Thinking Skills Practice

No	Critical Thinking Skills	Teachers' Response					Students' Response				
		F %	1	2	3	4	5	T	N	M	SD
1	Using inductive reasoning as appropriate to the situation.	F 2	13	5	3	2	25	297	2.89	1.28997	
		% 8	52	20	12	8	100				
2	Applying deductive reasoning as appropriate to the situation.	F 4	7	12	1	1	25	297	2.56	1.12734	
		% 16	28	48	4	4	100				
3	Utilizing information accurately for the problem immediately.	F 3	11	8	3	0	25	297	2.55	1.23796	
		% 12	44	32	12	0	100				
4	Using information creatively as soon as the problem occurs.	% 4	10	9	1	1	25	297	2.43	1.26102	
		F 16	40	36	4	4	100				
5	Analyzing how parts of a whole spoken ideas interact to produce general conclusions.	F 4	13	5	2	1	25	297	2.75	1.28342	
		% 16	52	20	8	4	100				
6	Analyzing how parts of a whole written ideas interact to produce overall outcomes.	F 2	10	10	3	0	25	297	2.83	1.37002	
		% 8	40	40	12	0	100				
7	Asking important questions that clarify various points of view.	F 0	2	4	10	9	25	297	3.13	1.42920	
		% 0	8	16	40	36	10				
8	Incorporating feedback properly into the lesson.	F 0	9	12	3	1	25	297	2.95	1.41343	
		% 0	36	48	12	4	100				
9	Making reflection critically on past experiences to inform future progress.	F 1	8	12	3	1	25	297	2.97	1.34658	
		% 4	32	8	12	4	100				
10	Coping positively with praise, setbacks, and criticism.	F 1	5	13	4	2	25	297	2.85	1.36421	

and 48% reported "Applying deductive reasoning" (item 2) "Sometimes." However, a notable exception was item 7 (Asking important questions), where 76% of teachers reported doing this "Often" or "Always," a clear divergence from the observation data. Student perceptions (M=2.43-3.13) generally corroborate the moderate-to-low practice level, with the highest student mean in item 7 (M=3.13) for critical thinking being "Sometimes".

Keys: F=Frequency, %=Percentage, 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always, T=Total, N=Number of participants, M=Mean, SD=Standard Deviation

4.2.2. Extent of Communication Skills Practice

In Table 7, teacher self-reports were slightly more optimistic than the observations, with most skills rated as “Sometimes” (for example, 48% for oral communication, item 11). However, the low use of digital technologies (item 17) was starkly confirmed by teachers, with 64% reporting they

“Never” use it. Student perceptions (M=2.03=2.86) were similar, with digital technologies use again having the lowest mean (M=2.03) and effective listening having the highest (M=2.86), all hovering around the “Rarely” to “Sometimes” level.

Table 7:Extent of Communication Skills Practice

No	Communication Skills	Teachers' Response							Students' Response		
		F/%	1	2	3	4	5	T	N	M	SD
11	Expressing ideas effectively using oral communication skills in a variety of forms and contexts.	F	1	8	12	1	3	25	297	2.83	1.17632
		%	4	32	48	4	12	100			
12	Expressing ideas successfully using written communication skills in a variety of forms and contexts.	F	1	10	12	1	1	25	297	2.68	1.13097
		%	4	40	48	4	4	100			
13	Use of communication skills to motivate students.	F	0	12	9	2	2	25	297	2.75	1.19056
		%	0	48	36	8	8	100			
14	Developing and communicating new ideas to students efficiently.	F	1	6	14	2	2	25	297	2.71	1.21738
		%	4	2	56	8	8	100			
15	Knowing when it is appropriate to listen and when to speak.	F	0	7	14	3	1	25	297	2.84	1.27464
		%	0	28	56	12	4	100			
16	Listening effectively to decipher the meaning of a message.	F	3	9	8	4	1	25	297	2.86	1.24443
		%	12	36	32	16	4	100			
17	Using technology for instruction.	F	16	6	2	0	1	25	297	2.03	1.33263
		%	64	24	8	0	4	100			

Keys: F=Frequency, %=Percentage, 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always, T=Total, N=Number of participants, M=Mean, SD=Standard Deviation

4.2.3. Extent of Collaboration Skills Practice

As presented in Table 8, self-reports by teachers on collaboration conflicted; for instance, while 36% reported always being punctual and actively participating (item 18), 48% reported that they “Rarely” or “never” group students in teams (item 19). Students' mean scores on collaboration were moderate, ranging from M=2.57-3.06, which shows

the level of the practice that ranged from “Rarely” to “Sometimes.” “Being punctual and actively participating” had the highest students' mean (M=3.06), corresponding with the highest score for teachers' self-reported collaboration.

Table 8:Extent of Collaboration Skills Practice

No	Collaboration Skills	Teachers' Response						Students' Response		
		F/%	1	2	3	4	5	T	N	M
18	Being punctual and participating actively.	F 3	2	3	8	9	25	297	3.06	1.32801
		% 12	8	12	32	36	10			
19	Organizing students in pair and group to complete a task together.	F 3	7	9	5	1	25	297	2.71	1.22626
		% 12	28	36	20	4	100			
20	Collaborating effectively with the teams.	F 5	7	10	1	2	25	297	2.57	1.22865
		% 20	28	40	4	8	100			
21	Incorporating group input into the work.	F 5	11	6	2	1	25	297	2.69	1.20738
		% 20	44	24	8	4	100			
22	Including group feedback into the lesson.	F 5	7	10	2	1	25	297	2.74	1.13981
		% 20	28	40	8	4	100			
23	Valuing the individual contributions made by each group member in collaborative work.	F 3	3	6	7	6	25	297	2.67	1.26721
		% 12	12	24	28	24	100			
24	Negotiating and balancing diverse views to reach workable solutions.	F 3	3	5	7	7	25	297	2.97	1.26642
		% 12	12	20	28	28	100			
25	Respecting cultural differences to work with students from a range of social and cultural backgrounds.	F 3	2	5	7	8	25	297	2.76	1.29190
		% 12	8	20	28	32	100			

26	Acting responsibly with the interests of the larger community in mind.	F	9	3	3	6	4	25	297	2.78	1.15275
		%	36	12	12	24	16	100			

Keys: F=Frequency, %=Percentage, 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always, T=Total, N=Number of participants, M=Mean, SD=Standard Deviation

4.2.4. Extent of Creativity Skills Practice

Teacher self-reports in Table 9 again suggested slightly more practice than observed, with most items falling into the “Sometimes” category. For example, 48% of teachers reported using brainstorming (item 27) “Sometimes,” and 76% reported creating new ideas (item 28) “Sometimes.”

However, student mean scores (ranging from M=2.54-2.82) confirm that creativity is not a dominant or consistently implemented feature of the classroom, remaining at a ‘Rarely’ to “Sometimes” level.

Table 9:Extent of Creativity Skills Practice

No	Creativity Skills	Teachers’ Response							Students’ Response		
		F/ %	1	2	3	4	5	T	N	M	SD
27	Using a wide range of idea creation techniques like brainstorming or concept map.	F	0	2	12	6	5	25	297	2.64	1.26908
		%	0	8	48	20	20	100			
28	Creating new and worthwhile ideas using both incremental and radical concepts.	F	0	4	19	1	1	25	297	2.59	1.15622
		%	0	16	76	4	4	100			
29	Elaborating ideas to enhance creative efforts.	F	1	4	19	1	0	25	297	2.54	1.13870
		%	4	16	76	4	0	100			
30	Evaluating ideas to improve creative efforts.	F	3	6	14	1	1	25	297	2.60	1.18993
		%	12	24	56	4	4	100			
31	Acting on creative ideas to make a tangible and useful contribution to the subject.	F	1	7	15	1	1	25	297	2.63	1.33750
		%	4	28	60	4	4	100			
32	Prioritizing and complete tasks without direct oversight based on your own creativity.	F	0	5	16	3	1	25	297	2.73	1.13440
		%	0	20	64	12	4	100			
33	Leveraging social differences to create new ideas.	F	1	2	13	4	5	25	297	2.82	1.23784
		%	4	8	52	16	20	100			

34	Using cultural differences to create new ideas.	F	1	1	13	4	6	25	297	2.63	1.24797
		%	4	4	52	16	24	100			

Keys: F=Frequency, %=Percentage, 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always, T=Total, N=Number of participants, M=Mean, SD=Standard Deviation

The qualitative interview data showed the scarce use of the learning and innovation skills, as the first teacher reported, “I use grammar parts”, whereas the other said, “I used communication and collaboration.” Similarly, the other replied, “Collaboration skills.” Another teacher reported,

“Collaboration and communication, because when they communicate with their partners, they develop their skills,” and the other two teachers replied:

“Collaboration, I may have the opportunity to know where my student is. For example, if I tell the reading, I may have the chance to teach the grammar; I may have the chance to teach another topic. So my interest and my experience teaching collaboratively.” “Most, you know, I like to use, you know, communication. Because students have to express their ideas in English. They have a lack, they have much fear, and they have a lack of interest and the knowledge to talk in English.

In addition, while they were asked about the use of digital technologies, one teacher said, “Smart mobile.” The other teacher also replied, “I use mobile,” and the third teacher similarly said, “I used my mobile phone in the classroom.”

From all these responses, it is possible to conclude that teachers’ responses showed the infrequent use of learning and innovation skills, whereas collaboration, followed by communica-

tion skills, were the focused skills among teachers. The use of digital technologies was also an important issue. Though teachers replied the use of mobile phones, no observed classroom teaching reflected what they reported. These subjective statements revealed that the implementation of learning and innovation skills was perhaps inadequate due to an improper implementation of strategies and insufficient training, which was required in order to transfer the learning and innovation skills from policy into teaching and learning activities in the classrooms.

5. Discussion

The research reported herein demonstrates a widening chasm between the desired use of learning and innovation skills and the enacted use of these skills within this EFL context. Similarly, contrary to the constructivist theory that emphasizes strong social interaction (Akpan et al., 2020), the learning and innovation skills were not given to the learners so that they can experience and develop their language skills. It seems evident that in terms of teaching and learning practices, each of the learning and innovation skills can be classified as implemented at either low to moderate levels, with considerable variation among actual practice, teacher perceptions, and student perceptions. Nevertheless, this evidence cannot be interpreted in a vacuum; instead, it needs to be examined against the background of global challenges to education that include, among others, teacher education, curriculum development and assessment practices.

Clearly, the overwhelmingly low level of observed practice for the majority of the learning and innovation skills activities implies that these skills are not a significant element of the prescribed or the implemented curriculum. The teachers in the present study seemingly operate under similar circumstances where knowledge dissemination appears to be more paramount than skill development.

The modest levels of the implementation of critical thinking skills, specifically the emphasis on

‘asking important questions’, are quite remarkable. Contradicting this idea, Youngsang and Eunim (2025) in their study found that the students practiced learning and innovation skills at a moderate level to high level, while collaboration and communication were the highest level of learning and innovation skills practice, followed by critical thinking and creativity. This is also supported by the finding that indicates that the implementation of critical thinking skills is commonplace among teachers (Gunawan et al., 2022). The teachers reported the item quite highly in the survey, but it was rarely found in observed practice, indicating that the teachers perceive they are using the skill but it might be at a lower, more convergent or recalled level. The very low levels of skills such as deductive/inductive reasoning and analysis strongly suggest that the teachers may not have received sufficient training in pedagogies designed to develop critical thinking skills. Critical thinking is not an inherent skill but something to be taught, which should result in teachers explicitly incorporating opportunities to practice it in lessons.

A significant problem for the EFL classroom context is the glaringly poor exploitation of communication skills demonstrated in the observed lessons; the primary purpose is to achieve communicative competence. However, a study by Tai (2023) indicates that learning and innovation skills were precisely implemented in the actual ELT classroom since the teachers successfully used them. The almost complete lack of digital

technologies use is very peculiar in the 21st century classroom and flies in the face of the recommendations of studies such as Shield and Kukulka-Hulme (2008), who emphasize the beneficial effect technologies may have on language development and communicative skills. High levels of student oral participation were notably absent in the observed lessons. This would imply a strong teacher focus rather than an engagement with communication and negotiation of meaning. Perhaps this small variation between self-report data and observational data reflects teachers using activities they consider to be communication (such as instruction giving) rather than a genuine concern for student-based communication.

The negative results for collaboration provide a deeper lesson: students may have been in a friendly learning environment but need more structure and pedagogical design to be able to collaborate deeply. The limited use of group work and feedback practices then indicates that collaborative work is not being used as an organized approach to enhance students' learning, especially learning and innovation skills.

What is most disheartening is the lack of practice in creativity. There is almost no practice in "new and worthwhile ideas, evaluation, or elaboration of students' ideas" in the classroom environment; this indicates a classroom which has little space to exercise student creativity or originality and supports Robinson's (2011) argument on the impact of education on creativity. Only simply brainstorming, a less in-depth and narrower version of creativity, was used, and it shows a shallow understanding of it. Small differences in teachers' and students' responses could be due to teachers treating every idea generated by the students as creativity, whereas for students, not all ideas may seem to be great creative ideas.

6. Conclusions

It is therefore concluded that although highly valued as important skills of 21st-century education, in the context of the EFL classroom under examination, the four key skills of critical thinking, communication, collaboration and creativity

were all implemented to a low extent. This use of this essential set of skills was very much superficial and not systematically promoted within the classroom context. Traditional instruction, both the linguistic/content transmission process and a teacher-centred approach, remained central and prevalent to classroom life. As would be expected, the three sources provided data that supported these general conclusions, though with varying degrees of extent.

The perceptions in particular varied from the teachers' own views of their practice, which were significantly higher, and therefore a discrepancy between intention and practice may well exist. Indeed, the significant difference between reported practice and the observations of classroom activity may hint at a possible deficit in pedagogical content knowledge. A primary concern was that the teaching of critical thinking would seem to be an objective in name alone. The learning objectives and tasks are not clearly matched and implemented. Critical thinking in the form of evaluation, analysis and reasoned argumentation is not being promoted as such. Teachers were, in the main, able to articulate their beliefs that they were 'getting students to think', but as would be shown from the results, they could not support this with anything more than their teaching 'thinking skills' indirectly.

Teaching focused heavily on knowledge transfer or information recall. Communication, a basic part of language learning, has in fact been seriously overlooked in this classroom. There is very little oral communication between learners, and teacher and student interaction is primarily directed between these two. It therefore can be concluded that there was a reliance on a teacher-fronted approach to learning rather than promoting more natural or more learner-initiated communication in order to help students to use English. Besides, the use of digital technologies was absent in engaging students to develop the skills.

Another significant conclusion was the role that collaboration has played in this EFL classroom.

There is, of course, a very pleasant learning atmosphere and there is a culture of tolerance, which does lend to a more informal environment, but as could be shown by the results, properly designed group work is absent in order for collaborative learning to take place. It would appear to be the culture rather than pedagogical practice that aids collaboration in terms of social cohesion.

Arguably most worryingly of all is that there appears to be very little in the way of promoting creativity in the classroom. The emphasis was very much on convergent thinking rather than divergent thinking. Creative processes, as would be illustrated in the results, have in the main been neglected or not promoted as part of the teaching process. In terms of creative processes, ideation, elaboration, implementation, and Evaluation seem to have been ignored or been treated as implicitly existing.

7. Limitations and Future Research Directions

Teachers' questionnaire data has the potential to suffer from social desirability bias, whereby participants respond more favorably and overestimate their teaching behavior or report their practices more favorably than they actually were. This bias can be inferred by the divergence between the observation and self-report data, whereby teachers overestimated their usage of the learning and innovation skills, which was evident through the questionnaire data in comparison to the observation data. The teachers were unwilling to concede they were lacking in their practice; the interpretation that teachers made on question items probably reflects their aspiration rather than implementation. However, the application of the questionnaire, the limited usage of the learning and innovation skills, and the frequent use of teacher, student, and self-questionnaires provided data from diverse perspectives and hence may have somewhat offset this bias. To take this research further and resolve the is-

ssues found, more research will be needed that focuses on the reasons behind the low level of learning and innovation skills, followed by an intervention which can improve students' language proficiency.

Competing Interests

The authors declare no competing interests.

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References

- Akpan, V.I., Igwe, U.A., Mpamah, I.B.I. & Okoro, C.O. (2020). Social constructivism: Implications on teaching and learning. *British Journal of Education*, 8(8), pp.49-56, September 2020. <https://ejournals.org/wp-content/uploads/Social-Constructivism.pdf>
- Andrade, Ch. (2018). Internal, external, and ecological validity in research design, conduct, and evaluation. *Indian Journal of Psychological Medicine*, 40 (5). DOI: 10.4103/IJP-SYM.IJPSYM_334_18
- Boone, H. N., & Boone, D. A. (2012). Analyzing likert data. *Journal of Extension*, 50(2), 1-5. DOI: [10.34068/joe.50.02.48](https://doi.org/10.34068/joe.50.02.48)
- Cavner, D. & Fox, J. (2014). *21st Century teaching and learning in Ethiopia: Challenges and hindrances. Conference paper in International Journal of Pedagogy and Curriculum*. <https://www.researchgate.net/publication/281848070>.
- Chu, S.K.W., Reynolds, R.B., Tavares, N.J, Notari, M. & Lee, C.W.Y. (2017). *21st century skills development through inquiry-based learning: From theory to practice*. Springer.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.)*. Sage Publications, Inc.
- Creswell, J. W. & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.)*. Sage Publications, Inc.
- Cretu, D. (2017). *Fostering 21st century skills for future teachers*. The European proceedings of social & behavioral sciences EpSBS, Edu World 2016 7th International Conference.

- <http://dx.doi.org/10.15405/epsbs.2017.05.02.82>
- Eaton, S.E. (2010). *Global trends in language learning in the twenty-first century*. Onate Press.
- Fullan, M. & Langworthy. (2014). *A Rich seam: how new pedagogies find deep learning*. London: Pearson.
- Fullan, M., Quinn, J., Drummy, M., Gardner, M. (2020). *Education reimaged: The future of learning. A collaborative position paper between new pedagogies for deep learning and Microsoft education*. https://assets.global.websitefiles.com/61366d43ebd6df56d9b67a11/6174a35759f230265d63c74f_Microsoft-EducationReimagined-Paper.pdf.
- Gay, L.R., Mills, G.E. & Airasian, P. (2012). *Educational research: Competencies for analysis and application (10th ed.)*. Pearson Education.
- Gunawan, I.M.A.A., Padmadewi, N.N. & Utami, I.G.A.L.P. (2022). The analysis of 4C skills representation in eleventh-grade senior high school's English textbook. *JPBII*, 10(1). DOI: 10.23887/jpbi.v10i1.883
- Kane, M., Berryman, S., Goslin, D. & Meltzer, A. (1990). *The Secretary's Commission on achieving necessary skills identifying and Describing the Skills Required by Work*. Pelavin Associates, Inc.
- Kapkir, F. (2024). Teaching 21st century skills in EFL classrooms: An investigation of teacher, student and institutional perceptions on the instructional practices of the 4C skills (MA thesis). Middle East Technical University. <https://open.metu.edu.tr/bitstream/handle/11511/109081/10628222.pdf>
- Kothari, C.R. (2004). *Research methodology: Methods and techniques*. New Age International (P) Ltd.
- MoE. (2018). *Ethiopian education development roadmap (2018-30). An integrated executive summary*. FDRE.
- MOE. (2020). *General education curriculum framework*. FDRE.
- NDCTE.(2023). *Preparing tomorrow's workforce*. https://www.cte.nd.gov/sites/www/files/documents/CareerReady/Entire_Career_Ready_Rubric_Document.pdf
- Nowell, L.S., Norris, J.M., White, D.E. & Moules, N.J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16, 1-13. <https://journals.sagepub.com/doi/10.1177/1609406917733847>.
- OECD. (2019). *OECD future of education and skills 2030, OECD learning compass 2030: a series of concept notes*. https://www.oecd.org/content/dam/oecd/en/about/projects/edu/education-2040/1-1-learningcompass/OECD_Learning_Compass_2030_Concept_Note_Series.pdf
- Orak, S.D. & Al-khresheh, M.H. (2021). In between 21st century skills and constructivism in ELT: Designing a model derived from a narrative literature review. *World Journal of English Language*. <https://doi.org/10.5430/wjel.v11n2p166>.
- P21. (2016). *Framework for 21st century learning*. Ohio Department of Education. https://www.battelleforkids.org/wpcontent/uploads/2023/11/P21_framework_0816_2pgs.pdf.
- Ravitz, J. (2014). *A survey for measuring 21st century teaching and learning: West Virginia 21st century teaching and learning survey [WVDE-CIS-28]*. Department of Education, West Virginia. https://www.battelleforkids.org/wpcontent/uploads/2023/11/P21_framework_0816_2pgs.pdf.
- Robinson, K. (2011). *Out of our minds: Learning to be creative (2nd ed.)*. Capstone. <https://static1.squarespace.com/static/5df3bc9a62ff3e45ae9d2b06/t/5e88bb41d84e09477ed6997b/1586019144402/EBS+Out+o+four+Minds.pdf>
- Saimon, M., Lavicza, A. & Dana-Picard, T. (2023). Enhancing the 4Cs among college students of a communication skills course in Tanzania through a project-based learning model. *Education and Information Technologies*, 28:6269–6285. <https://doi.org/10.1007/s10639-022-11406-9>
- Sankar, C. (010). *Business research methods*. Vivekanandha college of arts and science for women, Elayampalayam, tiruchengode-637205. <file:///C:/Users/Dot%20com/Downloads/BRMfull-Sankar--converted.pdf>

- SCANS (1990). *What work requires of schools: A SCANS for America 2000*. Department of labor. <https://files.eric.ed.gov/fulltext/ED332054.pdf>
- Scoular, C. (2020). *Analysis of 21st century skills integration as applied in the Philippines K to 12 program*. Final report. Australian council for educational research. <https://research.acer.edu.au/curriculumdevelopment/1>
- Shabrina, A. & Astuti, U.P. (2022). The integration of 6Cs of the 21st century education into English skills: Teachers' challenges and solutions. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 7(1), 28-37. DOI: [10.17977/jptpp.v7i1.15185](https://doi.org/10.17977/jptpp.v7i1.15185)
- Shenton, A.K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information* 22 (2004) 63–75. <https://doi.org/10.3233/EFI-2004-22201>
- Shield, L. & Kukulska-Hulme, (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), 271-289. Available at: <https://eric.ed.gov/?id=EJ812214> .DOI: [10.1017/S0958344008000335](https://doi.org/10.1017/S0958344008000335)
- Singh, Y.K. (2006). *Fundamental of research methodology and statistics*. New Age International (P) Ltd.
- Stahl, N.A. & King, R. (2020). Expanding approaches for research: understanding and using trustworthiness in qualitative research. *Journal of Developmental Education*. <http://www.jstor.org/stable/45381095>
- Taherdoost, H. (2016). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in a research. *International journal of Academic Research in Management (IJARM)*, 2016, 5. Hal-02546799. <https://doi.org/10.2139/ssrn.3205040>
- Tai, Ph.T. (2023). EFL students' perceptions and use of 21st century learning skills in learning English at a secondary school. *International Journal On Studies In English Language and Literature (IJSELL)*, 11(6), pp. 18- 25. <https://doi.org/10.20431/2347-3134.1106003>
- Trilling, & Fadel, C. (2009). *21st century skills learning for life in our times*. John Wiley & Sons Inc.
- Yohannes, S. (2019). Preparatory school learners' level of critical thinking proficiency and its correlation with their academic achievement in Ethiopia: The missing ingredient. *English Language, Literature & Culture*, 4(2), 32-38. <https://doi.org/10.11648/j.ellc.20190402.11>
- Youngsang, Ch. & Eunim, B. (2025). Unpacking class activities that foster the practice of the 4cs in a general English course: Students' perspectives. *Journal of Korea English Education*, 19(5), 85-101. <https://doi.org/10.46392/kjge.2025.19.5.85>
- Zohrabi, M. (2013). Mixed method research: Instruments, validity, reliability and reporting findings. *Theory and Practice in Language Studies*, 3 (2), pp. 254-262. doi:10.4304/tpls.3.2.254-262.