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Exploring english teachers' creativity in classroom practices and assessments: a multifaceted approach utilizing bloom's taxonomy

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Abstract

This paper delved into the essential thinking skills that English as a foreign language (EFL) teachers perceive as crucial for the development of English learners in both English classrooms and testing papers. The research examined these skills in the contexts of both classroom instruction and test design, highlighting the role of critical, creative, and analytical thinking in enhancing learners' language proficiency and academic performance. By identifying the thinking skills teachers prioritize, the study underscores the importance of equipping learners with the cognitive tools they need to navigate language learning more independently and successfully. To this end using a descriptive-based mixed-method design, a sample of 120 EFL teachers completed a meticulously designed researcher-made questionnaire aimed at eliciting insights into the thinking levels they prioritize during both teaching and the creation of test items. Additionally, a detailed analysis of test items from 10 EFL teachers was conducted to explore the types of test items aligned with Bloom's revised model. Furthermore, 5 teachers underwent observational scrutiny during two sessions each and one session of semi-structured interview, offering a firsthand exploration into their real-time practices, all framed within the model, as well as exploring their attitudes towards creativity. The results of the study showed and highlighted the significance of the first two levels of Bloom's Taxonomy (Remembering and Understanding), but not the other levels, both in real classroom settings and on exam sheets. Furthermore, even though the teachers were aware of the role of creativity in English classroom, there was a noticeable lack of the fifth and sixth levels (creating and evaluating) in the data.

Keywords: Assessment, Bloom's taxonomy, Creativity, Higher order thinking levels, Teaching practices

Introduction

As the most widely used language worldwide, English is essential in professional and academic settings including scientific conferences and seminars (Boroujeni & Fard, 2013). Higher-order thinking levels (HOT) of teachers appear to play a crucial role in English classrooms, especially when teaching English to foreign language learners (Ghanizadeh

et al., 2020), as their innovative approaches to instruction and evaluation have a substantial positive impact on the problem-solving abilities of EFL students. Bloom (1956) developed an important learning taxonomy that includes *Cognitive* (Knowing), *Affective* (Feeling), and *Psychomotor* (Doing). Anderson who was one of Bloom's students revised the taxonomy in 1990s. This taxonomy was later revised by Anderson and Krathwohl (2001), who restructured the cognitive processes from basic lower-order skills, such as "Remembering," to advanced higher-order skills, culminating in "Creating." The definition of creativity is "the exploration and development of new ideas or ways of thinking." Divergent thinking encompasses breaking old concepts apart, coming up with beautiful new ideas, forging new connections, and pushing the boundaries of knowledge (Alt et al., 2023; Rotaru, 2020). In actuality, creativity—the higher order of thought that follows analysis and evaluation—is capable of resolving issues in any kind of professional context (Bloom et al., 1956; Newmann, 1990). The classroom environment, for example, is one of the professional environments that has obstacles and issues. Diverse teaching tactics are employed by English teachers, particularly those who specialize in creative education, to cultivate students who are imaginative and creative thinkers with strong critical thinking and problem-solving skills (Arifani & Suryanti, 2019; Collins, 2014; Tran et al., 2024). According to HOT, creativity is the ability to find a solution to a problem, and a creative teacher is one who, when faced with challenges in the classroom, finds ways to break down barriers that exist in educational settings (Liu et al., 2023; Parsaiyan et al., 2020). Besides, "creative teachers produce creative students" (Mulyoto et al., 2024, p.1).

Research highlights the pivotal role of teachers' creativity in shaping instructional practices and fostering student engagement and success (Çelik & Akyildiz, 2021; Kurt & Önalán, 2018). Besides, there has been growing emphasis on integrating creativity and HOT skills into teaching and learning. Scholars such as Lee (2013) and Richards (2013) have offered practical advice to English teachers on incorporating creativity into their classrooms, while Maley and Peachey (2015) proposed a variety of imaginative exercises to enhance teaching effectiveness and learner engagement. Creativity is not only a tool for enhancing classroom dynamics but also a subject of research on teacher perceptions and attitudes. For instance, Kurt and Önalán (2018) explored Turkish pre-service EFL teachers' perceptions of creativity, revealing that while many recognize its importance, there is variability in their confidence and readiness to implement creative practices. Similarly, Çelik and Akyildiz (2021) examined how EFL teachers in Turkey perceive creativity, identifying it as a crucial yet underutilized component in many classrooms. These studies underscore the need for targeted professional development to equip teachers with strategies to foster creativity effectively. In terms of curriculum and assessment, research has also evaluated the integration of cognitive and creative skills into instructional materials. Mizbani et al. (2023), for example, analyzed the Vision 1 textbook using Bloom's revised taxonomy to assess the cognitive demands of its content. Their findings indicated a lack of emphasis on higher-order thinking skills, suggesting that more robust integration of advanced cognitive capacities is needed in EFL materials to better support learners' critical and creative development.

The studies showed that most teachers do not use a creative approach in their teaching and are unaware of the fundamental ideas of creativity (Cimermanova, 2015; Akyildiz

& Çelik, 2020). To promote creativity, it is mentioned that they employ various techniques in their classes, including games, snap-words, storytelling, and brainstorming. Therefore, based on the studies' indirect findings, it was concluded that, educators require a particular school culture, pedagogical content knowledge about creativity, and pedagogical practices that promote creativity in both teaching practices and assessment to develop a creative classroom environment (Pipes, 2023; Tan et al., 2016). The urgent need to address both teaching and assessment aspects of creativity becomes even more critical in EFL contexts, where learners have limited exposure to English outside the classroom. Furthermore, while global educational discourse increasingly emphasizes the need for innovative teaching and assessment practices, and while there are a bulk of studies in teachers' creativity and higher-order thinking levels as stated above, there is a scarcity of research specifically investigating the implementation of such approaches within the unique socio-cultural and educational framework of Iran. The real-life problem is that Iranian EFL classrooms often rely heavily on traditional, rote-based teaching methods and assessments, which fail to foster creativity, engagement, and critical thinking among learners. This challenge is exacerbated by limited exposure to English outside the classroom, making it crucial for teachers to strategically embed creativity in both instructional practices and assessments to address learners' specific needs and improve language proficiency. This study addresses the significant research gap by exploring how Iranian EFL teachers incorporate creativity into their teaching and assessment practices to overcome the challenges learners face in traditional classrooms. Unlike previous studies, this research provides a comprehensive framework for evaluating teachers' pedagogical strategies and their alignment with HOT and creative principles. By focusing on the interplay between creativity and classroom practices in an Iranian context, this study offers actionable insights and practical recommendations for fostering creativity in EFL education, both locally and globally.

Literature review

Because second language (L2) classrooms expose students to a variety of cultural situations, they are particularly well-suited to foster creativity (Wu & Zeng, 2025) and undoubtedly, teachers are responsible for creativity enhancement among students. In other words, it is not new to emphasize the value of teachers' creativity as the pinnacle of higher-order thinking skills. Since the mid-1990s, researchers have maintained that instructors with a humanistic philosophical perspective have honed their creative competences and incorporated certain creative approaches and strategies into their lessons. Furthermore, they outperformed teachers who adhered to conventional teaching methods in developing students' creative capacities (Meihami, 2022). The capacity for unique thought and invention is embodied in creativity. With this skill, students can generate concepts, solve problems, explore ideas, and produce original works of art by modifying, combining, and replicating preexisting ideas (Masadeh, 2021). Then, in order to develop their problem-solving skills, students require the assistance of innovative teachers. Teachers should therefore genuinely think that they may be the only source of knowledge for EFL learners in the classroom, and that means they may play a critical role in helping students develop their problem-solving skills (Kök & Duman, 2023).

One of the most concerning topics in contemporary educational psychology is the problem of creativity, which is so recent that Bogoyavlenskaya (2002) refers to it as the problem of the century. Creativity, defined as the ability to produce new, effective, and acceptable outcomes in various fields, is a key indicator of human intelligence (Ellerton & Kelly, 2021). Creativity or creative problem solving pertains to addressing challenges without a standard or established solution. It involves determining a pathway from the present situation to the desired outcome without relying on pre-existing methods (Wang, 2024). The capacity to address challenges without prior knowledge or training is what defines creativity. Essentially, creativity manifests when an innovative answer to a dilemma emerges. Initially, the resolution must effectively tackle the problems at hand; mere novelty in the response is inadequate. Additionally, the solution should be innovative from the perspective of the individual tackling the problem. While a response may be considered creative for someone who has never employed it for that particular problem, it may not be deemed creative for another person who is merely replicating a previously used solution for the same problem. Yüce et al., (2023) defines creativity as the capacity to produce fresh and unique outcomes tailored to the specifications and constraints of a particular task. These outcomes can encompass diverse ideas, perspectives, and innovations.

While teachers should be able to assess and analyze their knowledge, what matters more is that they should be able to create original ideas for novel situations, look at things from various angles, and apply their knowledge in real-world contexts. In this regard, creativity emerges as the most important competency (Anderson, 2002). The significance of teachers' creativity from multiple viewpoints needs to be emphasized urgently. Important subjects that have not received enough attention in the past literature include considering teachers' creativity from diverse perspectives and through different models and conceptualizations (Wu & Zeng, 2024). Since the ultimate objective of educational centers is to maximize learning achievement, the value of research in the area of teacher creativity is guaranteed. Suwarma and Apriyani (2022) pointed out that creative teaching allows instructors to become mindful of their full abilities as instructors and that creativity is also thought to have an impact on students' academic attainment, academic achievement, and learning results.

Improving students' creativity is much more important in EFL than it is in other subjects because it grows their 'predictive, analytical, vital, and problem-solving skills' as well as their 'confidence and self-esteem'. It also offers the 'affective and cognitive engagement' required for language acquisition and an acute awareness of how to utilize language for efficient and natural interaction (Tomlinson, 2017). According to Liao et al. (2018), innovative teaching strategies boost students' academic performance, enthusiasm, and creativity in EFL classes. According to Baghaei and Riasati (2015), fostering creativity in an EFL classroom makes for more engaging and humorous lessons. Creative teaching tactics can be effectively employed to raise the enthusiasm and focus of learners towards English and as the studies showed some of the factors such as the role of teaching environment directly affect teaching creativity (Ma & Wang, 2024). Positive effects can be seen by both teachers and pupils (Avila, 2015). Allowing students to produce new, distinctive, and distinct items, to question and exhibit critical attitudes toward all types of texts, and to enthusiastically express

their ideas and thoughts in a variety of mediums should be the goals of creative English language instruction (Cremin, 2017).

A bulk of research has been conducted on teacher creativity, and the findings show that teachers' perceptions of creativity influence how they foster it in the classroom (Lee et al., 2022). According to Odena and Welch's (2016) research, teachers' approaches to teaching tactics, attitudes in the classroom, and evaluations of creatively stimulating activities may be influenced by their own beliefs about the character of creativity. Lack of creativity education may keep teachers from creating the right environment for students to reach their full creative potential. Al-Qahtani (2016) looked at the attitudes of Saudi EFL teachers toward creativity and came to the conclusion that the primary barrier to its use in the classroom is the teachers' unclear ideas or preconceptions about it. Khodabakhshzadeh, et al. (2018) consider the originality of teachers and how it relates to the efficiency of their instruction. The findings indicate that there is a substantial correlation between teaching effectiveness and five subscales of creativity. Additionally, the findings indicate a noteworthy distinction between teachers' creativity and gender. In educational settings, there is a strong need to find solutions to issues that arise in the classroom. In these situations, research plays a crucial role. Hidayat and Mason (2023) tried to find out the factors that affect EFL teachers' creativity in Indonesia via interview sessions. The results revealed three factors including teachers' knowledge and teaching experiences, their motivation, and the role of technology. These three factors served as a guide for teachers regarding how they might integrate creativity into their teaching practice. Furthermore, Indonesian EFL teachers felt that in order to help students learn, make learning fun, and inspire creativity in them, they needed to be creative themselves. The affordances of the quickly evolving digital environment, which support student-centred and self-directed learning, seem to contribute to this belief. Lastly, this study shows that teachers are not naturally creative, but they can cultivate their creativity by embracing their creative ideas and honing their creative teaching skills.

Higher order thinking skills (HOTS) is a term associated with creativity. When discussing HOTS, one is referring to Bloom's Taxonomy, which is separated into two cognitive levels: Lower-Order Thinking Skills (LOTS) and Higher-Order Thinking Skills (HOTS) (Anderson & Krathwohl, 2001). HOTS requires students to analyze, evaluate, and create new content based on the information provided. Analyzing entails breaking down a particular issue into its constituent elements and determining how many parts are connected; evaluating is the ability to make judgments based on the current relevant requirements and standards; and creating requires coherent information and reorganizing the components into a new pattern or structure. Critical thinking requires students to actively engage in the process of gathering information. Harahap and Astrid (2021) demonstrated that in ELT, HOTS develops students' critical, creative, and reflective thinking skills. Additionally, Mukhamedov and Durdona (2023) asserted that HOTS is just as important as language proficiency for students' overall cognitive and linguistic development.

Numerous studies have been done on English teachers and HOT. For example, Ansori et al. (2019) did a case study to investigate teachers' beliefs about using HOTS to teach reading and how those beliefs would be mirrored in classroom practices.

The researchers observed the teachers' presumptions regarding the idea and significance of HOTS throughout the study. Because the techniques they employ, such as group projects, questioning techniques, and games, encourage HOTS to produce favorable results, teachers play a crucial role in classroom instruction. However, there was still uncertainty surrounding HOTS assessment since teachers were not completely implementing it in the classroom for a number of reasons, including a lack of training, a lack of direction in teaching and learning practices, student and school-related issues, and a lack of official support.

In order to better construct assessments, Siregar (2019) conducted a case study to examine the views of pre-service English instructors in Indonesia regarding the use of HOTS-based tests. The findings showed that, despite certain situational limitations, every participant expressed a favorable opinion of HOTS principles being used to improve evaluation from affective, behavioral, and cognitive perspectives because of certain influencing elements. In order to solve problems, Wu et al. (2024) attempted to integrate computational thinking (CT) into writing classes. While the control group received instruction using the traditional approach, the experimental group received instruction using the CT teaching model, which is based on the fundamental elements of CT (decomposition, generalization, abstraction, algorithm, and evaluation). According to the study's findings, adding CT to an English writing course improves students' writing and higher-order thinking abilities. By analyzing the material and pointing out possible problems or enhancements, the CT principles assist students in developing critical thinking abilities. It also enables students to apply their abilities to produce original writing solutions, which can increase the creativity of English writing.

Despite the wealth of research on teacher creativity and HOTS in ELT, there are still some important gaps, especially when it comes to the intersection of thinking skills prioritization, attitudes toward fostering HOTS, and the practical challenges teachers face in implementation (Zhi & Wang, 2023). Previous research, like that done by Hidayat and Mason (2023) and Ansori et al. (2019), emphasizes the importance of creativity and HOTS in improving student learning outcomes, but it frequently focuses on general factors influencing teacher creativity or the alignment of teacher beliefs with HOTS practices without systematically examining how particular thinking skills are prioritized in high school settings. Additionally, although studies by Mukhamedov and Durdona (2023) and Al-Qahtani (2016) highlight the significance of HOTS for cognitive development, little is known about teachers' complex attitudes toward encouraging creativity and other higher-order skills as part of their teaching methods.

There is a noticeable knowledge gap regarding the difficulties high school English teachers face when trying to incorporate HOTS, like creativity, into their lesson plans and evaluation procedures. According to studies like Siregar (2019) and Ansori et al. (2019), obstacles include inadequate institutional support, ambiguous guidelines, and a lack of training. However, these obstacles are often discussed in isolation, leaving a fragmented view of the systemic and contextual factors influencing HOTS implementation, particularly in high school English classrooms. In other words, the literature lacks comprehensive insights into the integration of Bloom's HOT levels and creativity in the real classroom practices and assessments of English teachers in Iranian high schools. In this dual-lens study, researchers aim to dissect the very essence of EFL teaching, capturing

the essence of educators' creativity or innovation in both classroom practices and assessments. A mixed-method study for understanding teachers' higher-order thinking levels from two lenses of teaching and assessment can be an important tool to help teachers prepare to navigate the constraints, challenges, and opportunities of their context and to see themselves as potentially powerful agents of change, hence fore; the results can help teacher trainees reflect on the normal and effective acts of creativity that are intrinsic in the practice of teaching. Based on the objective of the study, the following research questions were formulated:

RQ1: What thinking skills do English teachers in high schools prioritize in their teaching practices and assessment design?

RQ2: What are the attitudes of high school English teachers towards fostering higher-order thinking skills, such as creativity, in their teaching practices, and what challenges do they face in implementing these skills?

Method

The current study was performed in two phases following an exploratory sequential mixed methods design (Creswell & Creswell, 2018).

Participants and setting

The study involved a sample of 140 EFL teachers with varying short- and long-term teaching experiences, selected from high schools across the West Azerbaijan province using a convenience sampling method for the quantitative phase of the study. Participants were required to meet specific inclusion criteria to ensure the relevance and diversity of the sample. First, teachers had to be actively engaged in teaching English as a Foreign Language (EFL) at the high school level to align with the study's focus. Second, participants were required to hold at least a bachelor's degree in English Language Teaching (ELT) or related fields such as Linguistics or English Literature, ensuring they possessed the necessary academic qualifications pertinent to their teaching roles. Third, the study included teachers with varying levels of professional experience, encompassing both short-term educators with less than five years of experience and long-term educators with five or more years of experience. This criterion was designed to capture a broad spectrum of teaching backgrounds and perspectives. Lastly, participation in the study was voluntary, requiring teachers to willingly agree to complete the questionnaire. These criteria resulted in a diverse and representative sample of EFL teachers for the study. Of this initial pool, 120 teachers completed the questionnaire, resulting in a final response rate of approximately 85.7%. Among the respondents, 51 were male teachers, while 69 were female teachers. From among 120 EFL teachers, 44 held BA degrees in ELT, 73 held MA degrees in ELT, and 3 were PhD holders or PhD candidates in ELT and the related courses such as Linguistics and English Literature.

Utilizing a qualitative design, the current study was conducted to investigate EFL teachers' beliefs on the role of creativity and higher-order thinking levels in their teaching courses. To this end, a sample of 20 EFL teachers (12 male and 8 female teachers) from different high schools of Urmia, Iran was selected and interviewed in order to deeply investigate their attitudes towards creativity.

Besides, two sessions of 5 teachers (2 female EFL teachers with MA in ELT and 3 males with MA in ELT) were observed in order to investigate their real practices of creativity and HOT. Hence, thematic analysis was conducted to identify, code, and classify the frequent themes and episodes in both the interview section and observation section to validate and enrich the quantitative findings.

Instruments

The development of the "researcher-developed questionnaire" followed a systematic and rigorous process to ensure its validity and reliability. Initially, the questionnaire was designed to address the objectives of the study, with a focus on evaluating thinking levels within teaching and testing practices. To achieve this, 14 items were formulated for both domains, each measured on a five-point Likert scale ranging from "always" to "never." The items were thoughtfully constructed to align with Bloom's revised taxonomy, ensuring they captured a range of cognitive levels relevant to teaching and testing.

To establish content validity, the draft questionnaire was reviewed by three specialists in applied linguistics. These experts examined the items for clarity, relevance, and alignment with the study's goals, providing feedback that was used to refine the instrument. Following these revisions, the questionnaire was subjected to a reliability analysis using Cronbach's Alpha to determine its internal consistency. The analysis yielded a reliability coefficient of .81, indicating a high level of reliability for the instrument. This systematic approach ensured that the questionnaire was both valid and reliable, making it a robust tool for collecting data in the study. As previously mentioned, the questionnaire's validity and reliability were assessed to guarantee that it was a reliable way to gauge the instructional practices of EFL teachers. Cronbach's alpha (α) was used to evaluate internal consistency. Acceptable reliability is indicated by a Cronbach's alpha value greater than 0.70. Confirmatory factor analysis was used to assess construct validity, making sure that the factors that were recovered matched theoretical constructs. Average Variance Extracted (AVE) was used to evaluate convergent validity; values greater than 0.50 suggest that items accurately represent their respective constructs. Although it was not specifically addressed in the current study, criterion validity may be investigated by comparing the questionnaire responses with outside performance metrics or expert assessments.

The other data gathering tool was 10 sessions of classroom observation from five English teachers teaching English as a foreign language in high schools in Urmia, Iran with two sessions dedicated to each teacher. These observations, conducted by the researcher, aiming to scrutinize the actual practices of English instructors in the classroom context, specifically pertaining to the application of Bloom's revised model.

Subsequently, the final examinations administered by the observed instructors undergo meticulous analysis by the researcher. This analysis delves into the thinking levels elicited by the test items. In contrast to the questionnaire, which assesses teachers' perceptions and assertions, the observations and test analyses serve as instrumental tools for objectively evaluating the extent to which cognitive skills developed in students during class sessions. These methods provide a comprehensive understanding of the tangible impact of teaching practices on the cultivation of students' cognitive abilities.

Finally, the last data gathering tool was a semi-structured interview from the above-mentioned teachers. In general, the questions of the interview were revolved around the

concepts of HOT and creativity in English classrooms. The Farsi version of the interview questions was used for the current study, so the interviewees then provided their responses in Farsi, which were afterwards translated into English and presented as part of the study's qualitative data. The data was analyzed using thematic analysis. For estimating credibility of the interview questions, the researcher presented the information gathered from the interviewees and asked them to pay attention to each question and the answers were given by themselves to see whether there is any problem with or differences in the answers. The participants approved the accuracy of the data and so the credibility of the interview was approved. For the aim of dependability, 20% of the results of the interview were re-checked by two of the researcher's colleagues who were familiar with the data analysis section and the results of the inter-rater reliability was reported to be .87.

Data collection

Data collection for this study was scheduled to take place during the second semester of 2023. The necessary data sourced from English teachers teaching in high schools of Urmia, Iran for the observation and test analysis components. For the questionnaire section, 120 English teachers from different high schools of Urmia province invited to participate. The researcher communicated the general aim of the study to the teachers, after which the questionnaire was distributed via email or social media.

Additionally, the researcher plans to conduct observations of two sessions for each of the five English instructors to observe their teaching practices in alignment with Bloom's revised model. Subsequently, the tests designed by these instructors analyzed by the researcher to uncover the thinking skills embedded in the test items. To ensure the rigor and accuracy of the analyses, an applied linguist well-versed in taxonomy reviewed both the class observations and test item analyses. Finally, semi-structured interview was used to explore teachers' point of views on HOT and creativity. The participants were needed to reflect on their views on the concepts and they were also required to give reasons for their answers. For the sake of accurate transcription and in-depth analysis, the interview was taped for further analysis and presentation.

The interviewees provided their responses in Farsi, which were translated into English and presented as part of the study's qualitative data. In semi-structured interviews, the criteria for stopping the interview were both saturation and ensuring that the point of view of each and every teacher was collected. Around three sessions were devoted to the interview sessions and after the three sessions, the results of the interviews analyzed qualitatively.

Data analysis

To explore English teachers' perspectives on the thinking skills they deem essential for high school EFL learners' development in both the learning process and assessment, diverse statistical analyses conducted utilizing SPSS. To conduct a validity test for the questionnaire, the focus was on construct validity, which ensures that the items align with the underlying constructs (in this case, different aspects of teaching practices and assessment). The steps involve statistical analysis, particularly exploratory factor analysis (EFA) or confirmatory factor analysis (CFA), to determine whether the items group

into coherent factors that represent distinct constructs. After this phase, the descriptive statistics was employed to interpret the questionnaire results, while content analysis was applied to scrutinize the outcomes of class observations and tests. The findings from distinct instruments were juxtaposed, and a comparative analysis was undertaken. Additionally, frequencies and percentages were meticulously reported to offer a comprehensive overview of the collected data.

The method of analysis chosen for the interview section was a qualitative approach of thematic analysis, and it was reported in the form of themes and sub-themes for the semi-structured interview and extracts. The researcher also switched between reading the codes line by line and tried to process the data in an attempt to identify meaningful qualitative units for analysis. This multifaceted approach to data collection aims to provide a comprehensive understanding of the practices and assessments employed by English teachers, offering valuable insights into the development of students' cognitive skills.

Findings

The first research question aimed to explore the thinking skills that EFL teachers find necessary to be developed in their real teaching practices and designing test papers. The data collected through the questionnaire, classroom observations and test items' analysis helped the researcher to answer this question. To analyse the questionnaire data effectively, it is essential to run the validity test at first. Table 1 shows the results of factor analysis.

The factor analysis's findings indicate that the questionnaire has strong validity for evaluating EFL teachers' instructional strategies. Since the component analysis revealed three unique variables that correlate to various aspects of teaching practices—lower-order teaching practices, higher-order cognitive skills, and creative/integrative practices—the questionnaire first demonstrates great construct validity. This suggests that the items are in good agreement with the theoretical constructs that they are intended to assess. The majority of the items have substantial factor loadings (greater than 0.60),

Table 1 Factor Loadings for Questionnaire Items

Item No	Factor 1	Factor 2	Factor 3	Communality
1	0.85	0.12	−0.03	0.74
2	0.78	0.10	0.01	0.62
3	0.15	0.82	0.05	0.71
4	0.20	0.77	0.09	0.65
5	0.03	0.10	0.88	0.81
6	−0.02	0.12	0.85	0.73
7	0.05	0.78	0.20	0.69
8	0.10	0.72	−0.05	0.54
9	−0.08	0.83	0.01	0.68
10	0.12	0.65	0.25	0.52
11	0.05	0.08	0.81	0.70
12	−0.05	0.06	0.87	0.75
13	0.09	0.11	0.84	0.72
14	0.04	0.78	0.12	0.68

indicating that they are classified appropriately and assess the intended structures. The questionnaire's overall validity and the sufficiency of the factor model are further supported by the fact that all questions have communalities above 0.50, which indicates that the extracted factors account for a significant amount of the variance in each item. The questionnaire's items span a wide range of teaching strategies, from creativity and problem-solving to memorization and repetition, guaranteeing that the instrument catches a variety of teaching facets. Additionally, the components support the claim that the questionnaire evaluates theoretically sound notions because they are consistent with well-known educational theories, especially Bloom's Taxonomy. Some items, like Item 10, have somewhat lower communalities (0.52) than others, indicating that they may account for a little less variance. Editing these items could improve their relevance and clarity in respect to the constructs, but it does not invalidate the questionnaire. Although simple adjustments to a few items could increase the questionnaire's robustness, overall, it shows enough validity to measure EFL teachers' teaching techniques. However, a thorough validation of the scale cannot be achieved by depending only on the findings of exploratory factor analysis. A Confirmatory Factor Analysis (CFA) was performed to make sure the retrieved factor structure matched the theoretical model. By evaluating how well the suggested factor structure fits the data, the CFA results offer additional proof of structural validity. Table 2 displays the t-values, p-values, standard errors, and standardized factor loadings.

Since the majority of the standardized loadings are over 0.70, showing strong connections between items and their corresponding factors, the CFA results validate the suitability of the extracted factors. Furthermore, the factor model's validity is further supported statistically by the significant t-values and p-values below 0.05. There may be space for improvement as some goods, such Item 10, have somewhat lower standardized loadings. Nonetheless, the overall results support the scale's structural validity and suitability for assessing the teaching methods of EFL instructors. Several fit indices were looked at in order to evaluate the model's fit in more detail. Table 3 displays the findings.

Table 2 Confirmatory Factor Analysis (CFA) Results

Item No	Standardized loadings	Standard error	t-value	p-value
1	0.82	0.05	16.4	0.000
2	0.75	0.06	14.7	0.000
3	0.80	0.04	18.2	0.000
4	0.78	0.05	15.6	0.000
5	0.85	0.04	19.1	0.000
6	0.83	0.05	17.3	0.000
7	0.77	0.06	13.5	0.001
8	0.70	0.07	10.9	0.002
9	0.81	0.05	16.2	0.000
10	0.60	0.08	7.2	0.005
11	0.79	0.06	14.8	0.000
12	0.84	0.05	16.7	0.000
13	0.82	0.05	15.9	0.000
14	0.76	0.07	13.1	0.001

Table 3 Model Fit Indices for CFA

Fit Index	Value	Recommended threshold
Chi-Square	(χ^2)176.42	$p > 0.05$ (non-significant preferred)
Chi-Square/df (χ^2/df)	2.13	< 3 (acceptable)
RMSEA (Root Mean Square Error of Approximation)	0.048	< 0.06 (good fit)
CFI (Comparative Fit Index)0.945 >	0.90	(acceptable), > 0.95 (good fit)
TLI (Tucker-Lewis Index)	0.930	> 0.90 (acceptable)
SRMR (Standardized Root Mean Square Residual)	0.041	< 0.08 (good fit)

Table 4 Results of the Questionnaire for EFL Teachers in Teaching Practices (N = 120)

NO	Items	M	SD
1	In my teaching classrooms, I prioritize activities that engage learners in memorizing information	4.84	.99
2	I concentrate on the activities that that require learners to repeat information	4.31	.98
3	I emphasize activities that involve learners in explaining information	3.36	.90
4	I prioritize activities that engage learners in comprehending information	4.29	1.01
5	I encourage activities that involve learners in applying information to produce tangible results, such as completing a form	4.77	.92
6	I focus on activities that involve learners in using of facts, rules and principles	3.34	.98
7	I focus on activities that engage learners in problem-solving and using facts, rules, and principles	3.22	.75
8	I guide activities that involve learners in identifying motives or causes, such as reasons for specific phenomena based on a given text	3.01	1.01
9	I promote activities that involve learners in critical reading and subdivision, such as jigsaw tasks to understand composition	2.96	.94
10	I stress activities that involve learners in making value decisions, resolving controversies, and developing opinions, judgments, or decisions	2.37	.97
11	I emphasize activities that involve learners in developing opinions and plans for production	2.45	1.02
12	I concentrate on activities that involve learners in creating a unique, original product, whether verbal or physical	2.58	.78
13	I promote activities that involve learners in combining ideas to form a new whole	2.65	.96
14	I concentrate on activities that involve learners in integrating facts, rules, and principles into their understanding		
	3.02	1.01	

The model fit indices suggest a good model fit, as the CFI (0.945) and TLI (0.930) are above 0.90, RMSEA (0.048) is below 0.06, and SRMR (0.041) is well below the 0.08 threshold. The χ^2/df ratio (2.13) is also within the acceptable range. Other fit indices should be given greater weight when evaluating the model, even though the Chi-Square test is statistically significant. This is because it frequently occurs in high sample sizes. The CFA results show that the extracted factor structure is in good agreement with the theoretical model, hence confirming the questionnaire's structural validity. The scale is dependable and appropriate for evaluating the teaching methods of EFL teachers, as confirmed by the fit indices, which also show a solid model fit. Overall, the results verify the efficacy of the questionnaire, while some modest adjustments could strengthen the scale's robustness, especially for items with lower standardized loadings.

Answer to the first research question

After the above phase, the revised questionnaire was distributed among English teachers. Table 4 presents the results of the questionnaire administered to 120 EFL teachers, focusing on their teaching practices and test design priorities.

As shown in Table 4, in terms of classroom activities, the most frequently reported thinking level by high school teachers were item 1 (In my teaching classrooms, I prioritize activities that engage learners in memorizing information) with the mean of 4.84 followed by the item number 5 (I encourage activities that involve learners in applying information to produce tangible results, such as completing a form) with the mean of 4.77. In other words, based on EFL teachers' point of views, Level 1: Remember, ranked first followed by Level 3: Apply. Furthermore, item 2 from the first level (I concentrate on the activities that that require learners to repeat information) and item 4 from the fourth level that was understanding level (I prioritize activities that engage learners in comprehending information) were the other two levels teachers choose while designing activities for the high school students at English classrooms. Items number 10 and 11 from the level five or evaluation and decision-making level were the least reported activities by EFL teachers. The items related to the last level that is creativity level were also ignored by EFL teachers while designing activities.

The other data-gathering tool employed in this study was classroom observation, which aimed to provide an in-depth analysis of the actual teaching practices of English instructors. This phase of the research involved 10 observation sessions conducted in high schools in Urmia, Iran, focusing on five EFL teachers. Each teacher was observed for two sessions, resulting in a total of 10 observational instances. The primary objective of these observations was to scrutinize the teachers' real-time instructional practices, specifically in relation to the application of Bloom's Revised Taxonomy (Anderson & Krathwohl, 2001) in their classrooms.

The observations, conducted directly by the researcher, served to capture the teachers' approaches to fostering cognitive learning processes such as remembering, understanding, applying, analyzing, evaluating, and creating. This allowed for a systematic examination of how different levels of Bloom's revised model were implemented in teaching English as a foreign language. Particular attention was paid to the highest-order thinking level, "creating", as it aligns with the study's emphasis on creativity in instructional practices.

In addition to classroom observations, a semi-structured interview was conducted with each of the five teachers following their respective observation sessions. These interviews were designed to complement the observational data by exploring the teachers' perspectives and attitudes toward incorporating creativity in their teaching practices. The combination of observations and interviews provided a holistic understanding of the instructional behaviors, challenges, and strategies adopted by the teachers.

During the observation from an experienced teacher, the researcher found out that the observed teacher emphasized reading and translation activities, prioritizing remembering and recalling over higher-order thinking levels. In the other class, a female teacher with 9 years of teaching experience, focused on translation, reading texts, and creating sentences, with little attention to the higher thinking levels such as discussion. The findings suggest a prevalent exclusion of higher thinking levels in the high schools in

Iran. English teachers in high school settings tend to prioritize Remember (Level 1) and Understand (Level 2) according to Bloom's revised taxonomy both in classroom activities and test item design, neglecting higher thinking levels (Levels 4 to 6). The evidence indicates a notable neglect of higher-order thinking levels such as Analyze, Evaluate, and Create in Iranian high schools. The other section of the questionnaire was on the assessment and teachers' creativity in test design and HOTS. Table 5 shows the results for test design section.

Similar results were observed as it was shown in classroom activities. Items of 1 and 2 under the first level (remember) ranked first with a narrow margin ($M=4.23$ and $M=4.01$, respectively). Moreover, the items 3 ($M=3.99$), 4 ($M=3.86$), and 5 ($M=3.84$) under the levels of understanding and applying followed by the first two items by the subjects while designing test items. However, they ignored levels 4 to 6 in designing test items. Besides, the item 10 ($M=2.34$) under the category of evaluation level (I stress on the questions that involve learners in making value decisions, resolving controversies, and developing opinions, judgments, or decisions) and item 14 ($M=2.33$) under the category of creativity (I concentrate on the test items that involve learners in integrating facts, rules, and principles into their understanding) were the low frequency items reported by the teachers in designing test items. After distributing the questionnaires and collecting the data from high school EFL teachers, the question types of five observed teachers were analyzed according to Bloom's revised model. The results of test types' analysis were shown in Table 6.

The first teacher's test comprised 20 questions, including synonyms presented as fill-in-the-blank sentences, sentence completion within a reading comprehension context, antonyms, and translation. These question types aligned with the "remembering" and

Table 5 Results of the questionnaire for EFL teachers in test design ($N=120$)

NO	Items	M	SD
1	In designing tests, I include questions that assess memorizing information	4.23	0.87
2	I concentrate on the questions that that require learners to repeat information	4.01	.93
3	I design test items that involve learners in explaining information	3.99	.94
4	I design test items that engage learners in comprehending information	3.86	.97
5	I design test items that involve learners in applying information to produce tangible results, such as completing a form	3.84	1.16
6	I focus on questions that involve learners in using of facts, rules and principles	3.98	.80
7	I focus on questions that engage learners in problem-solving and using facts, rules, and principles	3.01	.98
8	I focus on the test items that involve learners in identifying motives or causes, such as reasons for specific phenomena based on a given text	2.71	1.1
9	I focus on the test items that involve learners in critical reading and subdivision, such as jigsaw tasks to understand composition	2.46	1.02
10	I stress on the questions that involve learners in making value decisions, resolving controversies, and developing opinions, judgments, or decisions	2.34	0.98
11	I concentrate on the test items that involve learners in developing opinions and plans for production	2.80	0.84
12	I concentrate on the tests that involve learners in creating a unique, original product	2.79	0.96
13	I focus on the test items that involve learners in combining ideas to form a new whole	2.36	1.01
14	I concentrate on the test items that involve learners in integrating facts, rules, and principles into their understanding	2.33	1.21

Table 6 Analysis of test items

Teachers/Levels	Remember	Understand	Apply	Analyze	Evaluate	Create
Teachers 1	8 items (40%)	12 items (60%)	—	—	—	—
Teachers 2	6 items (60%)	4 items (40%)	—	—	—	—
Teachers 3	2 items (13.3%)	13 items (86.7%)	—	—	—	—
Teachers 4	5 items (50%)	5 items (50%)	—	—	—	—
Teachers 5	11 items (55%)	9 items (45%)	—	—	—	—

"understanding" levels of Bloom's cognitive taxonomy, necessitating students to recall information from long-term memory and to construct meaning from instructional messages. From the total of 20 items, 60% of the items fall in the second level and 40% were in the first level. The second test (with 10 items) primarily focused on the "remember" (60%) and "understand" (40%) categories, while the third test (with 15 items) targeted understanding through cloze passages with 86.7%. Teacher number 5 gave equal weights to the first and second level, while the weight of level 1 in teacher number 5 tests was more than (55%) that of level 1 (45%). Overall, the rest of tests predominantly emphasized lower thinking levels—remembering and understanding—while neglecting to challenge students at higher cognitive levels (Table 4).

Answer to the second research question

The second question aimed to explore the attitudes of high school English teachers towards fostering higher-order thinking skills, such as creativity, in their teaching practices, and the challenges they face in implementing these skills. To this end, a semi-structured interview was used. After the observation sessions, the same teachers were interviewed. During the interviews, the researchers questioned the observed teachers about their teaching philosophies regarding fostering critical thinking and problem-solving skills in their English classes (the first question of the interview). To answer this interview question, the responses revealed three major themes that shed light on factors influencing the emphasis on lower-order thinking skills in classroom activities and assessments, including the impact of the educational system (4 responses out of 5), the perceived importance of foundational language skills (3 responses out of 5), and the lack of resources or training for integrating higher-order thinking levels (3 responses out of 5). One teacher with nine years of experience highlighted the influence of the educational system and exam structure, emphasizing the importance of foundational language skills. All interviewees highlighted the insufficient resources and training for integrating higher-order thinking skills into teaching, with one interviewee expressing the challenge of incorporating higher-order activities without proper guidance or materials, leading to a preference for activities aligned with remembering and understanding, as extract 1 clarifies:

Extract 1: "higher-order thinking skills are dependent on a strong foundation of remembering and understanding due to insufficient guidance or materials".

The interview's second question focused on the challenges teachers encounter when integrating higher-order thinking levels into English language lessons and how they address such challenges. Factors such as time constraints, low levels of course books,

student engagement, assessment difficulties, and a lack of professional development opportunities were identified as key influences on the successful implementation of analysis, evaluation, and creativity-promoting activities, as the main themes. Almost all teachers highlighted time constraints and curriculum demands as significant challenges (5 responses out of 5). For instance, a teacher with 11 years of experience expressed difficulty in integrating higher-order thinking activities due to the pressure of covering extensive content within a tightly packed syllabus. The other teacher with seven years of experience stated that:

Extract 2: "Low levels of course books make it difficult to include analysis, evaluation, and creativity-promoting activities."

The third interview question addressed the role of assessments in promoting higher-order thinking skills, seeking the interviewees' perspective on potential changes needed in current assessment practices. The interviewees emphasized on the themes such as the necessity of shifting in educational goals to include critical thinking (5 responses out of 5) and the need for more training and resources for designing assessments that measure analysis and evaluation (3 responses out of 5).

The final interview question addressed professional development, focusing on teachers' perspectives regarding their readiness, the need for targeted professional development, and the importance of access to resources and support networks to integrate activities targeting higher-order thinking skills and creativity into their teaching. The prevalent theme was the need for tailored professional development (5 responses out of 5). One of the interviewees stated that:

Extract 3: "in my idea, it is an urgent for the trainers and teachers to work on and empower hands-on, tailored approaches in professional development programs. This practice and awareness motivate the students to improve their skill on creativity and higher order thinking levels".

This coding provided a structured framework to analyze the interview data, making it easier to draw meaningful conclusions and actionable insights.

Discussion

The aim of the current study was to explore the thinking skills that EFL teachers find necessary to be developed in their real teaching practices and designing test papers through the questionnaire, classroom observations and test items' analysis (the first research question). Furthermore, the attitude of English teachers in high schools towards creativity and higher order thinking levels were explored via a set of interview questions (the second research question). In reaction to the first research question, the results revealed that the teachers emphasized on lower-order thinking skills (Remember and Understand) in both classroom activities and test item design, as well as the limited inclusion of higher-order thinking levels (Analyze, Evaluate, and Create). Moreover, the results of interview approved the findings from the questionnaire, classroom observations, and test item analysis.

The result is consistent with the findings of Rabihavi et al (2011). Using Bloom's Taxonomy, they analyzed exam questions from two teacher training institutions and categorized them as Knowledge or Comprehension; none of the items assessed the more intricate procedures. The so-called study and our study's findings are strikingly similar.

The current study's findings are consistent with the research conducted by Lan and Chern (2010), which examined the cognitive processing levels and knowledge categories assessed on Taiwanese college admission exams' English reading comprehension tests. Remember Factual Knowledge and Understand Factual Knowledge comprised the majority of the items in their study, with very few things found at higher cognitive levels of Apply and Analyze. The results are in congruent with Abosalem (2016) that found teacher-made tests predominantly measure the lower levels of Bloom's Taxonomy, with 87% of items focusing on these levels, which limits the development of higher-order thinking skills (HOTS) like Analyze, Evaluate, and Create. Moreover, another study highlighted that while there is a push towards integrating HOTS in assessments, many tasks still primarily engage students at lower cognitive levels, indicating a gap in effective implementation (Polly & Ausband, 2009). This trend reflects a broader challenge in education, where the focus on LOTS can hinder students' ability to engage in more complex thinking processes necessary for real-world problem-solving (Mishra & Kotecha, 2016).

The results align with the study conducted by Akyıldız and Çelik (2020), which sought to investigate Turkish EFL teachers' perspectives on creativity and their innovative teaching methods in greater depth. The findings showed that even though most teachers were unaware of the fundamental ideas behind creativity and did not employ a creative approach in their instruction, they still used a variety of creative teaching techniques in their classrooms, including games, storytelling, brainstorming, and snap-words. They came to the conclusion—which is quite similar to the current study—that a number of factors, including a curriculum heavy on content, an exam-focused education, students, short course lengths, and technology, hinder creativity and innovative teaching approaches.

This outcome is consistent with the conclusions found by other investigations (Kurt & Önal, 2018; Nedjah & Hamada, 2017; Wang & Kokotsaki, 2018) who investigated the conception, perception, or knowledge of EFL teachers about creativity. According to Henriksen et al., (2016), creativity can only be realized when it is incorporated into the curricula. According to Kurt and Önal (2018), pre-service English Teaching Education programs in Turkey do not place a strong emphasis on creativity. They asserted that because of this shortcoming, their participants, pre-service EFL teachers, have constrained perspectives on creativity. Consequently, it may be assumed that both this flaw and the previously stated problem affected the study's subjects.

One important factor observed in the fourth class's observation session was the fact that the teacher tried her best to avoid students to speak in first language, however, the students were reluctant to answer in English or even take part in group work. In terms of students' reluctance to learn a foreign language, which could be damaging to the creativity, the results are in line with Lee (2013), Nedjah and Hamada (2017) and Wang and Kokotsaki (2018) that believed students' attitudes towards English and their English levels are other challenges in the process of creative thinking. Students in Turkey are mostly reluctant to learn a new language and they have a prejudice against English (Karahan, 2007). Their negative attitudes towards English are regarded as one of

the constraints for creative teaching in the context of the current research.

One justification for the results of the present study can be the low level of the students whom the English tests and teaching procedures were designed to. The level of

EFL learners at Iranian high schools is lower-intermediate to intermediate and the teachers wisely created harmony between level of knowledge of the students with the level of questions. Also remembering were the high frequent questions used by EFL teachers since what learners are just expected to do is recalling and remembering a specific element. All in all, it was found that English courses and the teachers, cannot make high school students' critical thinkers due to some reasons such as curriculum policy.

In terms of the second research question, the results showed that the interviewees were aware of the factor of creativity, however, some constraints avoided them to give priority to the higher order thinking levels such as evaluation and creativity. In other words, English teachers in high schools recognized the importance of creativity but face challenges in integrating them into their teaching practices. The influence of the educational system, the perceived foundational role of language skills, and the lack of resources and training are key factors shaping their attitudes. Based on the results, there is a marked lack of emphasis on fostering creativity and higher-order thinking skills, which is a significant concern for the development of critical thinking, problem-solving, and analytical abilities in students. This shortcoming, as reflected in the current study, mirrors the findings of Ansori et al. (2019), who highlighted the difficulties teachers face in fully implementing HOTS due to various constraints, such as inadequate training, lack of direction in teaching practices, and student-related challenges.

Teachers in this study acknowledge the importance of foundational language skills, which are primarily lower-order thinking skills (such as memorization and recall), but they tend to overlook the cultivation of higher-order thinking skills. This tendency is in line with the findings of Siregar (2019), who explored pre-service teachers' views on HOTS-based tests and found that while teachers appreciated HOTS principles, they struggled to effectively integrate them into their practices due to situational limitations. The prioritization of lower-order thinking can be attributed to the educational system's focus on basic language skills and the exam-driven structures that dominate Iranian high schools. These findings are consistent with the research by Hidayat and Mason (2023), which underscore the influence of these systemic factors on teachers' attitudes toward HOTS.

One of the key factors hindering the integration of HOTS into teaching practices in this study is the lack of resources and training. Teachers reported struggling with time constraints, limited student engagement with higher-order tasks, and the challenges of assessing complex thinking skills. This is also reflected in Wu et al. (2024), who suggested that teachers need the right tools and models, such as computational thinking (CT), to foster critical thinking and creativity in students. However, in the context of Iranian high schools, where traditional teaching methods and exam formats dominate, teachers are less equipped to incorporate such innovative strategies.

Despite challenges, teachers express a willingness to enhance their skills through targeted professional development and access to relevant resources and support networks. Addressing these aspects could contribute to a more balanced approach in fostering both lower and higher-order thinking skills in high school English classrooms. This aligns with the findings of Mukhamedov and Durdon (2023), who highlighted the necessity of providing teachers with ongoing professional development and support to enhance their teaching practices. When teachers are provided with such

opportunities, they are better able to shift their focus from merely delivering content to developing students' critical and creative thinking abilities. Accordingly, this study aligns with previous research by Jansen and Möller (2022), and Lan and Chern (2010) that reported using different methodologies found an emphasis on lower-order thinking skills (knowledge and comprehension) in assessments. The findings are in contrast with Al-Qahtani's study (2016) that examined Saudi EFL teachers' Attitudes towards creativity and concluded that teachers' lack of clear conceptions of creativity/ misconceptions about creativity constitute the main reason which hinder its application in the classroom. As noted by many scholars, including Kurt and Önalın (2018), Lee (2013), Nedjah and Hamada (2017), and Cremin (2009), teachers' activities in EFL classrooms can be influenced by their understanding of the idea of creativity. Thus, it is impossible to fully develop students' creativity and conduct creative pedagogy effectively without a deeper grasp of creativity. The outcome is consistent with Wang and Kokotsaki's (2018) study, which found that those with more creativity knowledge and insight are able to provide examples of a wider range of uncommon and creative activities, while others are limited to examples of commonplace and ordinary creative activities. For the benefit of the students, Khany and Boghayeri (2014) contend that finding innovative teaching strategies and putting them into practice successfully are just as important as being creative as an educator.

The teachers in the current study mentioned to the challenges teachers faced in incorporating HOT levels into English language lessons and the manner in which they address such challenges. Time constraints, course book's low levels, student engagement, assessment difficulties, and a lack of professional development opportunities were the key factors influencing the successful implementation of activities that promote analysis, evaluation, and creativity. In terms of time constraints, the findings are in harmony with Ginting and Kuswandono (2020), which similar to the current study explored the role of HOTS and understood teachers often report insufficient time to design and execute lessons that promote HOTS, which can limit their ability to engage students in deeper cognitive processes. Similar conclusions were drawn from studies by Wang and Kokotsaki (2018), Nedjah and Hamada (2017), and Al-Nouh et al. (2014) regarding how little time is left for creative teaching in EFL classes due to the curriculum's length and content. Also, as Musa (2021) stated many course materials are designed at lower cognitive levels, making it difficult for teachers to integrate HOTS effectively into their lessons.

Regarding student engagement, the results are in line with Kusumastuti et al. (2019). The researcher concluded that engaging students in activities that require analysis, evaluation, and creativity can be challenging, particularly if students are not accustomed to such tasks. Similarly, assessment difficulties reported by Abkary and Purnawarman (2020). The researcher believed teachers struggle with assessing HOTS due to a lack of clear guidelines and understanding of how to evaluate these skills effectively. Not unsimilar to the present study, Tyas et al. (2019) mentioned to the lack of professional development and stated many teachers feel unprepared to teach HOTS due to insufficient training and professional development opportunities.

According to Craft (2003), instructors face difficulties with the curriculum since it is "fixed, required, which takes up an extensive amount of instructional time and

requires a great deal of propositional information" (p. 122). These limitations were covered in Lee's (2013) paper, where he offered numerous solutions to these problems. Addressing these challenges in future research is crucial for enhancing the quality of English language education and fostering critical thinking skills among students. Overall, it appears that teachers, in addition to students, desire to be intrinsically and extrinsically driven to use more innovative teaching strategies. This is a feature that has been overlooked in English classrooms, particularly in high school settings, in recent years.

Conclusion

This study falls in the area of creativity, teaching practices, and assessment, especially in the EFL context. Based on the results of the questionnaire, test items' analysis, and classroom observation, EFL teachers used lower-order thinking levels in both teaching practices and test design and they barely paid attention to creativity and higher-order thinking levels at both teaching and assessment. In other words, in Iranian educational institutions, such as high schools, teachers tend to reflect less of the philosophical foundation of creativity. This shortcoming has been reflected by the findings of current research. Based on the results of the interview (second research question), English teachers in high schools tended to prioritize lower-order thinking skills due to the influence of the educational system and exam structures, which place a significant emphasis on basic language skills. Teachers recognize the foundational importance of language skills and perceive higher-order thinking as building upon this foundation. However, they face challenges in incorporating higher-order thinking into their teaching practices, including time constraints, student engagement issues, and difficulties in assessment. The lack of resources and training specifically tailored to higher-order thinking skills further complicates the integration process. Despite these challenges, teachers express a desire for professional development opportunities that offer practical strategies, examples, and resources to enhance their skills in promoting higher-order thinking. Additionally, they emphasize the importance of access to a supportive network for collaboration and resource-sharing. Addressing these challenges and providing targeted support could contribute to a more balanced approach in fostering both lower and higher-order thinking skills in high school English classrooms. This research sheds light on the need for a more balanced approach to teaching and assessment, encouraging the development of higher-order thinking skills to better prepare students for real-world challenges and applications of the English language.

There are some pedagogical implications, for example the results of the current research may help book authors choose materials and construct questions that will encourage students to use higher order thinking skills. This study may also aid the researchers with understanding of thinking, cognition, metacognition, and questioning research. Similar to any research endeavor, the present study adheres to specific limitations set by the research. One such limitation arises from the relatively small pool of English teachers available in high schools in a region like West Azerbaijan, Urmia. The researcher is compelled to work with a limited sample size due to the unavailability of a larger number of participants. It is worth noting that studies of this nature often benefit from a larger participant pool, as it enhances the reliability of the results. Furthermore,

the rules governing high schools preclude the use of simple random sampling, necessitating the adoption of a non-random convenience sampling method. For further research, a comparative study of two educational contexts like high schools versus universities is more welcomed. Also, longitudinal studies can shed more light on the dark aspects of HOT. Lastly, the present research was designed to have the views of teachers on creativity. However, the other research might comparatively analyze the perceptions of not only teachers but also students to highlight further. Lastly, it is important to note that Factor 1, which has just two items, is a significant constraint of the factor structure. To provide sufficient construct validity and reliability, a factor usually needs three or more items (Morizot, 2014). It is challenging to evaluate internal consistency using metrics like Cronbach's alpha or composite reliability (CR) when there are only two elements. Furthermore, because two-item factors in CFA offer insufficient information to accurately identify the concept, they may result in poor model fit. Future studies should consider adding more items that align with the conceptual meaning of Factor 1 or re-examining item loadings to see if these items fit better under another factor.

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Author contributions

A.SH.made substantial contributions to the conception or design of the work; the acquisition, analysis, interpretation of data; or the creation of new software used in the work; S.KH. drafted the work or revised it critically for important intellectual content; approved the version to be published; and KH. M. agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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