Thinking Ability and its Impacting Factors among Graduate Iranian EFL Learners through Generating Types of Questions

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Abstract

Since an effective technique to assess the level of thinking ability is to identify the types of questions one generates, the present research by employing a hybrid question framework, intended to investigate the status of thinking ability among Iranian EFL students in two majors of TEFL and English Literature in M.A. and Ph.D. degrees. To this end, through convenience sampling, a group of 51 students was asked to read two simple short texts and make any type of question(s) that would spring to their minds in essay-type format. Then, using purposeful sampling, 15 participants out of 51 were selected for a semi-structured interview. The findings revealed that nearly half of the participants did not generate thought-provoking questions, which might imply that beyond-routine thinking is not well attended to in the related context. Moreover, as the English Literature students were more capable of producing thought-provoking questions than the TEFL students, it can be inferred that an academic major can be considered an essential factor impacting one's way of thinking. Furthermore, since the students of English Literature/TEFL in Ph.D. degree outperformed those in M.A. degree, it can be concluded that the academic degree can be accounted as an aiding factor influencing the level of thinking ability as well. Furthermore, in searching for the reasons affecting (non-) production of thought-provoking questions, several factors were discovered and categorized into impeding and promoting ones.

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Teaching English as a Second Language Quarterly (TESLQ)	**118**
(Formerly Journal of Teaching Language Skills)	Gholamhossein
41(3), Summer 2022, pp. 117-153	Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

In a memorization-based educational system, routine thinking and factual knowledge are privileged over understanding and criticizing. In this system which is called 'schooling without thinking' (Lipman 2003), knowledge is passed on from the knower to the learner. If learners simply memorize factual information and accept uncritically whatever is fed into their minds, they fail to utilize them in real life (Fisher, 2013). This consequently gives way to unreflective thinking, which as Cam (1995) indicates, is acquired as a result of constant repetition and routine understanding. To resolve the problem, education, as a large enterprise, should provide students with opportunities to be able to think and plunge deeply into subjects. This is stressed by Cottrell (2005) and Cam (2006), who argue that students who have not learned to think reflectively are comparable to illiterate ones. As such, reflective thinking should be attended to in classrooms (Cam, 1995).

Dewey (1933) defines reflective thinking as "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends" (p. 6). However, the effectiveness of reflective thinking should be seen in the concept of critical thinking. Students should be encouraged to develop critical thinking in order to be able to take a reflective and thoughtful look at issues (Facione, 2011).

Critical thinking involves asking and analyzing questions, reasoning and arguing issues, drawing inferences, making deductions, and making judgments based on criteria, reason, and evidence (Lipman, 2003). However, he claims that though critical thinking is essential, it is not sufficient; hence, due attention should also be allocated to creative and caring thinking.

Lipman (2003) defines creative thinking as the skills of "productivity, originality, imagination, expression, and generativity" (pp. 245-246). Creativity, as explained by Torrance (as cited in Baker, Rudd, & Pomeroy, 2001), is "… searching for solutions, making guesses, or formulating a hypothesis about deficiencies; testing and retesting these hypotheses and possibly modifying and retesting them" (p. 176).

Lipman (2003) holds that our emotions and feelings deeply fashion our thoughts and that thinking without emotions would be uninteresting. Following him, Sharp (2014) claims that learning is not just the accumulation of knowledge but also the cultivation of feelings and emotions. According to Brunt (2003), caring thinking emerges from the heart. To him, caring thinking appreciates and prizes, shows empathy and responds to injustice, and has to do with what happens when we put ourselves into another's situation.

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)

41(3), Summer 2022, pp. 117-153

119

Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

Lipman (2003) believes that excellent thinking appears when critical, creative, and caring thinking are brought together. But to him, excellent thinking without philosophy is flat, barren, and unintelligible. Being impressed by several philosophers, he concluded that philosophy is the richest resource for developing excellent thinking. According to Lipman, Sharp, and Oscanyan (1980), philosophy is a tool to invite people to think and seek to plunge deeper and deeper into concepts. Philosophy, according to Splitter and Sharp (1995, p. 130), encourages people to discover the meaning of concepts that are "central to our lives, rather than trivial; common to most people's experience; ordinary rather than esoteric, yet contestable, or puzzling not easy to agree on or settle once and for all." According to Haynes (2002), "such concepts are wide-ranging and include issues like friendship, anger, life and death, religious beliefs, fairness, etc." (p. 23). Accordingly, philosophy assists the practice of looking into those concepts and questions most of us have wondered about from time to time: "What is reality, beauty, democracy, justice, art, truth, language, or does everything have a cause? What makes something beautiful?" (Gregory, 2008, pp. 2-3).

It is evident that all the above-cited types of thinking are all triggered by questioning. Hence, to prompt reflective and profound thinking, reflective/thoughtful questions need to be intrigued. According to Cam (2006), questions are classified as routine and beyond-routine questions. Routine questions exist for fixed correct answers, but a little search may be needed to reach the answer. According to Cam (2006), routine questions include reading comprehension questions and factual questions. Reading comprehension questions are extracted from the reading passage to examine students' comprehension of the text while factual questions are designed based on obvious facts whose answers are thoroughly clear; questions such as "Who was the first U.S. president?" and "How many miles can a car travel on a tank of gas?" Beyond-routine questions, on the other hand, invite people to think and give different opinions. Such questions have no correct answer, although some answers might seem more reasonable than others. These questions, as Lipman (2003) explicates, can be categorized as critical, creative, and caring questions, along with philosophical ones. Critical questions primarily involve criticizing and offering reasons. They mostly deal with "whyness" and "howness." For example, "Could you explain why this is so?" or "What are the reasons for …?" Creative questions are concerned with speculation, imagery, creation, and elaboration. For example, "What would happen if you could fly? What does this color make you think of? What would that noise look like if we tried to draw it?" Caring questions are concerned with emotive thinking. For instance, "How should I sympathize with someone? How can people control

Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**120** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

their feelings in a dangerous situation?" Philosophical questions are general, open-ended, and contentious questions that are detached from the text. Such questions are not simple to answer and hence extremely puzzling (Gregory, 2008). It should be noted that a philosophical question differs from a critical one in that the former deals with existence, i.e., ontology (e.g., Does God exist?), whatness (e.g., What is God?), and knowledge, i.e., epistemology (e.g., How do we know if God exists?) and the latter is concerned with whyness (e.g., Why does God exist?).

Based on the afore-cited question types, one can come up with a hybrid question framework (see Figure 1). This framework consists of two parts: a) routine questions involving Cam's (1995) reading comprehension and factual questions and b) beyond-routine questions involving Lipman's (2003) excellent thinking questions, which include critical, creative, and caring plus philosophical questions.
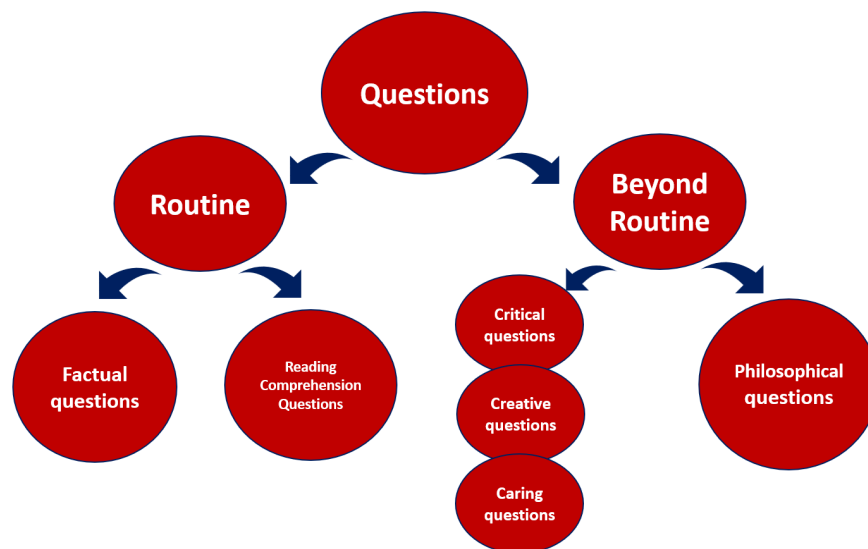

Figure 1. *A hybrid question framework adapted from Cam (1995) and Lipman's (2003) questions classification*

With respect to examining the status of the level of thinking ability in various educational contexts in Iran, a great body of research has been carried out on critical thinking in disciplines like Medical Sciences, Engineering, and Human Sciences. For instance, in the field of Medicine, it was revealed that this thinking ability was weak among Clinical nurses and students (Azizi-Fini, Hajibagheri, & Adib-Hajbaghery, 2015; Babamohammadi & Khalili, 2005; Eslami & Maarefi, 2010; Hoseini & Bahrami, 2002;

Islami Akbar, Shekarabi, Behbahani & Jamshidi, 2004). Also, in the same field, Jafari et al. (2020), in a systematic review in the databases of PubMed, Web of Science, Scopus, ERIC, and Magiran, examined the critical thinking level among medical sciences students in Iran and found that the level of critical thinking skills was at a low level and their tendency to critical thinking was at a moderate level and low level as well. Additionally, due to the poor performance of students' critical thinking, Azizi Abarghoui et al. (2021) hold that critical thinking should be reinforced in the Iranian education system as well as in high school teaching programs. With respect to teachers' knowledge of critical thinking skills, Ghaani and Roslin (2021) indicate that EFL teachers demonstrated poor overall knowledge of the concept of core critical thinking skills though their attitude towards critical thinking was significantly positive. The results of their study also demonstrated that not much critical thinking skills practice was implemented in language skill-based classes. Moreover, although Amir Khandaghi, Pakmehr, and Amiri (2011) disclosed optimal level of such thinking at a moderate level among all participants in Humanities, Anajafi et al. (2009) concluded that the students of Engineering were stronger in critical thinking than students of Human Sciences. And more specifically, though the status of this type of thinking was not satisfactory among EFL learners in B.A. degree (Shahini and Nouri, 2018 a), in a study done by Mohammadi and Golandouz (2017) it was shown that the critical thinking ability level among Humanities students was lower than that of EFL learners. Moreover, the status of philosophic-mindedness has also been investigated in two fields physical education and EFL. With respect to physical science, it was concluded that while the sports managers possessed a higher degree of philosophical mindset, the trainers and supervisors enjoyed a moderate level of this mindset (Talebpour et al., 2005). Or while the sports teachers and trainers' philosophical thinking ability was moderate, the sports teachers' mean score was higher than that of the sports trainers (Nikkhah, 2008). Or based on Smith's (1956) framework on three components of philosophic-mindedness, comprehensiveness, penetration, and flexibility, the findings unraveled that females outperformed males in all three components in junior high schools (Nouri et al., 2013). Or in another study, based on the same framework, it was concluded that to achieve a deep philosophical outlook. The three components need to be evenly nurtured inside the participants (Ghorbanalizadeh Ghaziani et al., 2014). And finally, when it comes to the field of EFL, the findings revealed that the majority of the participants were not able to generate philosophical questions (Shahini and Nouri, 2018 b), nor were they able to provide philosophical answers to philosophical questions (Shahini, 2018).

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)
41(3), Summer 2022, pp. 117-153

122
Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

If we desire to know the reasons behind the inappropriate position of critical thinking in Iran, a host of factors are said to be at play, amongst which cultural and politico-religious ones, emerging from the Iranian political history, are known to be the most impelling causes (Shokouhi & Latifi, 2019; Shomali, 2016). Shokouhi and Zaini (2022), in an interesting paper, elaborate on the effect of these concepts via "two major Persian constructs that influence CR [Critical Reading]: hefz-e zaaher 'keeping up appearances' and ta'sob/gheyrat, approximating to 'one's honor combined with prejudice and bigotry'" (p. 76). These two constructs were used by four Iranians with postgraduate degrees in Australia in their discussions on two texts.

Shokouhi and Zaini (2022) conclude that ta'sob, which is historically rooted in Iranian culture, is an irrational behavior emerging from religious, ethnic, linguistic, and nationalistic factors. They add that it "can also be related to power/authority and since power is inseparable from knowledge" (Foucalt, 1982, as cited in Shokouhi and Zaini, 2022, p. 88) that individuals establish their power by showing their knowledge to others. They also maintain that Iranians demonstrate their ta'sob through their sense of control, ownership, dominance and even physical power. In addition, their study indicates that there is a high degree of emotional attachment to national symbolic figures in participants' discussions. By hefz-e zaaher, they mean that Iranians eschew criticizing others and seek compromise, for they fear and distrust others and are afraid of bad consequences. Put differently, because of hefz-e zaaher, Iranians do not criticize and oppose many issues related to politics and religion, even if they have anti-political religious ideas.

As Atkinson (1997) holds, critical thinking takes place in an open society in which individuals can freely raise their voices and criticize others without being threatened by violence and punishment. It also calls for an educational environment in which instructors and students respect their diverse beliefs and opposing views. However, according to Atkinson (ibid), critical thinking is treated differently in Iran and the West. As Facione (2011) maintains, critical thinking in the West is based on logic and intellectual values not unreasoned opinions. Accordingly, when Iranians are brought up with the two constructs of ta'sob/gheyrat and hefz-e zaaher, they are expected to think uncritically, emotionally, and biasedly in a community in which they are not allowed to express disapproval and level criticism against others. Therefore, in such a society in which the culture of debate is not seeded, they gradually become alienated from critical thinking, and their thinking comes to a halt when faced with whatever cannot be rationalized. All the above-stated points indicate that critical thinking has not gained a plausible place and has gone unnoticed in the education system in Iran. It should also be reminded that the

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)
41(3), Summer 2022, pp. 117-153

123
Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

results of the above-mentioned studies on the reasons behind the undesirable status of critical thinking are in alignment with the results of the status quo of philosophical thinking in Iran, which is shaped by educational, religious, sociocultural, historical/political factors, among others (Nouri, 2016).

Given the significant role, thinking can fulfill in enhancing the cultivation of the mind in both routine life and educational settings (Jie et al. 2014), it seems urgent that prior to nurturing thinking, its position be looked over by individuals in diverse contexts. In this respect, as Lipman (1993) relates, a means by which one's mentality can be assessed is their capabilities in producing thought-provoking questions. As Lipman (1993) states in particular, "since philosophy is characteristically a question-raising discipline" (p. 677), one way one's philosophic-mindedness can be looked upon is to see if they are able to cast a philosophical look at a text and in turn to pose philosophical question(s) on it. It is obvious, however, that those who have adopted the habit of raising deep profound questions, that is, critically tend to delve into the depth of wide-spread concepts mentioned above and do not lead an unreflective life based on idle superstitions and habitual beliefs (Russell, 1997), their questions differ from those routine/superficial ones posed by the ordinary people. Moreover, due to the fact that there is nothing that can more effectively prepare students to combat indoctrination and to have a liberal view than posing challenging questions (Lipman, sharp, Oscanyan, 1980), and since an effective technique to assess the level of thinking ability is to identify the types of questions, one generates (Cam, 1995; Lipman, 2003), the present study by employing the hybrid question framework made of Cam's (1995) routine questions and Lipman's (2003) excellent thinking questions, intended to identify the level of thinking ability of Iranian EFL learners in two majors of TEFL and English Literature in M.A. and Ph.D. degrees through their producing questions. It also aimed to investigate a) if there was a difference between the types of questions raised by the students in these two majors, b) if there was a difference between the types of questions made by the students of English Literature in M.A. and Ph.D. degrees c) if there was a difference between the types of questions raised by the students of TEFL in M.A. and Ph.D. degrees. Additionally, the present paper aimed to look for the participants' reasons behind generating different questions. In line with these objectives, the following research questions appear below:

RQ. 1. What types of questions are produced by EFL students in M.A. and Ph.D. degrees?

RQ. 2. What is the difference (if any) between the types of questions made by English Literature students and students of TEFL in M.A. and Ph.D. degrees?

Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**124** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

RQ. 3. What is the difference (if any) between the types of questions made by English Literature students in M.A. and Ph.D. degrees?

RQ. 4. What is the difference (if any) between the types of questions made by the students of TEFL in M.A. and Ph.D. degrees?

RQ. 5. What are the underlying reasons behind EFL students' producing questions in M.A. and Ph.D. degrees?

The study's contribution is that alongside other instruments (e.g., Watson-Glacer test, 1980; Facione test, 1992) used to measure thinking ability through answers provided to questions, the present study investigates the status of thinking ability through the questions generated. It should be added that if, after this stage, individuals are trained to raise beyond-routine questions in L2 classes, such questions will lead to deep, thoughtful negotiations, which in turn provoke L2 learners to talk and the more they talk, the more they improve their speaking skill (Haynes, 2002; Mousavi Arfae, 2019; Murris, 1992; Ofsted, 1997; Shahini & Riazi, 2010; van der Leeuw, 2004). The reason Master and Ph.D. students' questions are intended to be analyzed is that if after analyzing the types of questions they generate, they, as prospective trainers, will be instructed to raise beyond-routine questions, they in turn will train the student teachers to raise such questions in their teaching professions. This, consequently, assist students in raising critical questions leading towards the best solutions, reflecting on their own and other people's activities, and making rational decisions on what course of action to take. The results of the present study may assist policy makers, curriculum developers, textbook writers, and language teachers in becoming aware of the status of thinking ability among EFL students in graduate degrees, make them create changes in textbooks, and improve the educational system to ameliorate students' thinking abilities. The findings may also help parents to pay more attention to the significance of thinking. Besides, since the issue of determining one's level of mentality through producing questions is almost new in EFL contexts, no attempt has so far been made to explore students' mentality from this perspective. Therefore, by using the question-raising technique and the present hybrid question framework to assess one's thinking ability, the stakeholders may get acquainted with the corresponding factors leading to (beyond-) routine thinking ability.

Method

Design

This study adopted a qualitative approach. This approach is important in understanding and portraying the meaning that participants construct and, more

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)
41(3), Summer 2022, pp. 117-153

125

Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

specifically, in "how they perceive the events, processes, and activities" (Ary et al. 2019, p. 391). Concerning this approach, the study benefited from content analysis and semi-structured interviews. Content analysis was applied to portray how the participants perceived two written passages and to identify specified characteristics of the types of questions generated by them. The hybrid question framework (see Figure 1) by Cam (1995) and Lipman (2003) was used for content analysis, and its supporting theoretical framework was Dewey's (1933) reflective thinking, Lipman's (1993) Philosophy for Children (P4C), and Vygotsky's (1978) social interaction. The rationale for a semi-structured interview, as the most common method of data collection procedure in qualitative research (Willig, 2008), was to reveal what is important to understand about the factors contributing to (non-) raising beyond-routine questions. The questions were formulated by the researchers based on their experiences and the related literature.

Participants

The participants (aged 22 to 45) were selected based on convenience sampling. A sample of 51 participants (22 males and 29 females) was recruited. They were selected from among M.A. and Ph.D. English Literature and TEFL students from four universities in Iran, i.e., Shiraz University, Yazd University, Isfahan University, and Shiraz Azad University. Out of their total number, 24 were English Literature students, including 13 M.A. and 11 Ph.D. students, and 27 were students of TEFL, including 16 M.A. and 11 Ph.D. students. The participants were accessed via their M.A. and Ph.D. classes. They were introduced by their instructors with whom they had class, and those who voluntarily agreed to participate in the research were recruited. Using purposive sampling which was conducted based on their major, academic degrees, and their production of different types of questions, 15 participants (6 males and 9 females) out of 51 were selected for interview. The number of interviewees was determined by the level of data saturation reached.

Instruments

First, two simple short passages of different types, story and non-story (biography genre), were employed. The texts were: 1) *The Tale of Peter Rabbit* (Beatrix Potter,1992), which has been translated into 36 languages and is one of the best-selling books (see Appendix A). 2) *Ladan and Laleh Bijani* ('Ladan and Laleh Bijani,' n.d.) which is an account of two conjoined twin sisters, joined at the head, who decided to get separated but passed away after their surgical operation (see Appendix B). Two texts were used so that the participants could have enough chance to pose further questions and were of

	Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**126** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

various types so that they would not be limited to making questions based on a particular theme and genre. There were two reasons for the selection of the texts. First, they were simple to understand. The participants were required to make questions after reading the texts, and if the texts were difficult to understand, they could not make questions. Moreover, we wanted to make certain if the participants were able to make beyond routine questions even on simple texts like these. Second, the first text was selected because though this story is written for children, it is said it can be used for people of any age range. Moreover, children and adults have raised many critical and philosophical questions about this story (see Kennedy, 1992). So, when children can raise beyond-routine questions on this story, the adult participants in the present study can do that, either. The reason for the selection of the second text was that although it was simply a biography, we wanted to make certain that the participants could cast a critical, creative, caring, and philosophical look at it and were able to generate beyond-routine questions accordingly. The philosophical potentiality of the texts was verified by two experts in the field of philosophy and philosophy of education. Second, a semi-structured interview was conducted in Persian. The questions (see Appendix C) were formulated by the researchers. Responses to the interviews were audio-recorded, transcribed, and later coded by the second researcher who was qualified enough in the coding procedure.

Criteria for detecting beyond-routine questions

The characteristics of critical, creative, caring, and philosophical thinking suggested by Lipman (2003) are shown in Table 1 (For a definition of each term, see Lipman, 2003).

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)

41(3), Summer 2022, pp. 117-153

127

Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

Table 1

Characteristics of critical, creative, caring, and philosophical thinking by Lipman (2003)

Critical Thinking	Creative Thinking	Caring Thinking	Philosophical Thinking
Agreeing or disagreeing Criticizing Giving reason Giving example or counterexample Classifying/Categorizing Making a comparison Making a distinction Making a connection Making an analogy Offering a definition Identifying assumption Making inference Making conditional statement Reasoning syllogistically Restating Entertaining different perspectives	Originality Productivity Imagination Holism Expression Inventiveness	Valuational Affective Active Normative Empathic	Metaphysics Ontology Existence Epistemology Ethics Using logic

Based on the characteristics mentioned above of critical, creative, and caring thinking, the questions belonging to their types are outlined as follows:

Critical questions mainly look for *criticizing* and *offering reasons*.

Hence, they begin with 'Why' or 'How'. Questions like:
- Could you explain why this is so?
- What are the reasons for …….?
- How could you defend the …….?
- Why was ………better than …….?

Creative questions primarily have their eye on *speculation*, *imagery*, *creation*, and *elaboration*. Questions like:
- What would you do if you had a trunk?
- What does this color make you think of?
- Do dinosaurs have friends?
- What would happen if you could fly?
- What do you think would be most exciting about living underwater?
- How do you think tomorrow gets here, to where we are?
- What would that noise look like if we tried to draw it?

Caring questions are concerned with *emotive thinking*. Questions like:
- How should I sympathize with someone?

	Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**128** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

- How can someone control his feelings in a dangerous situation?
- How can I help to solve someone's problem?
- How should we respond to the injustice been done to an innocent person?

Philosophical questions seek for the following:

- Concepts/metaphysics (e.g., What is beauty?)
- Whatness/ontology (e.g., What is God?)
- Existence (e.g., Does God exist?)
- Knowledge/epistemology (e.g., How do we know if God exists?)
- Ethics/values (e.g., Is that good, right, etc.?)
- Logic/reasoning (e.g., If so…then…?).
- Big, general concepts/issues detached from the text

Data Collection and Data Analysis Procedure

Before conducting the main data collection procedure, a pilot study was run with five participants. The selection of these five participants was not a part of the main recruitment. The participants were asked to read the texts and were interviewed later. This helped the researchers to realize how the real data collection procedure could be carried out to reach the optimum results. Then, the participants in the target sample were asked to read the two texts and make any type of question(s) (routine and/or beyond-routine questions) that would spring to their minds in essay-type format. Text reading together with question making lasted about two hours. The participants were provided a ten-minute rest period while performing the task. The types and contents of the questions were then analyzed based on the definition of different types of questions in the hybrid question framework. The two researchers evaluated the questions individually, and the inter-rater reliability was 0.85. To increase credibility and confirmability, the questions were also validated by experts in the field of Philosophy and Philosophy of Education to verify the classifications performed by the two researchers.

Then, from among the whole number of 51 participants, 15 were purposefully chosen to be interviewed to share their viewpoints on their non-/production of beyond-routine questions. To elicit relevant, to the point, and in-depth information during the interview, keywords were noted and questioned in later probes, if needed. After transcribing and coding procedure, the key points were culled, classified, and then translated into English. It should be added that the credibility (truth value) of the data was obtained through consensus, using peer review or peer debriefing. To remove misunderstandings and to

	Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**129** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

increase the study's credibility and confirmability, member check/participant feedback was performed. The dependability of the data was obtained by coding agreement. The inter-coder agreement between the two researchers was found to be 0.92. The remaining differences were resolved through further discussions.

Results and Discussion

With respect to the first research question, the questions produced by the participants were classified as routine and beyond-routine in Table 2:

Table 2

The Type and Percentage of the Questions Made by EFL Students in M.A. and Ph.D. Degrees

Participants	Sex	Age	Degree	Major	Total No. of Qs	No. of routine Qs & percentage	Beyond-routine Qs	
							No. of critical, creative, & caring Qs & percentage	No. of Philo. Qs & percentage
Participant1	F	25	M.A.	English Literature	10	0 (0%)	9 (90%)	1 (10%)
Participant2	F	25	M.A.	English Literature	36	35 (97.2%)	1 (2.8%)	0 (0%)
Participant3	M	28	M.A.	English Literature	21	6 (28.6%)	15 (71.4%)	0 (0%)
Participant4	F	24	M.A.	English Literature	9	2 (22.2%)	7 (77.8%)	0 (0%)
Participant5	F	26	M.A.	English Literature	17	4 (23.5%)	13 (76.5%)	0 (0%)
Participant6	F	25	M.A.	English Literature	23	23 (100%)	0 (0%)	0 (0%)
Participant7	M	22	M.A.	English Literature	20	8 (40%)	12 (60%)	0 (0%)
Participant8	M	38	M.A.	English Literature	12	12 (100%)	0 (0%)	0 (0%)
Participant9	F	25	M.A.	English Literature	17	1 (5.9%)	15 (88.2%)	1 (5.9%)
Participant10	F	29	M.A.	English Literature	3	1 (33.3%)	2 (66.7%)	0 (0%)
Participant11	F	25	M.A.	English Literature	15	4 (26.7%)	10 (66.7%)	1 (6.6%)
Participant12	F	23	M.A.	English Literature	7	2 (28.6%)	5 (71.4%)	0 (0%)
Participant13	F	30	M.A.	English Literature	22	0 (0%)	21 (95.4%)	1 (4.6%)
Participant14	M	33	Ph.D.	English	8	7 (87.5%)	1 (12.5%)	0 (0%)

Participants	Sex	Age	Degree	Major	Total No. of Qs	No. of routine Qs & percentage	Beyond-routine Qs	
							No. of critical, creative, & caring Qs & percentage	No. of Philo. Qs & percentage
				Literature				
Participant15	F	35	Ph.D.	English Literature	11	0 (0%)	11 (100%)	0 (0%)
Participant16	M	40	Ph.D.	English Literature	14	14 (100%)	0 (0%)	0 (0%)
Participant17	F	33	Ph.D.	English Literature	10	0 (0%)	10 (100%)	0 (0%)
Participant18	F	32	Ph.D.	English Literature	19	7 (36.9%)	12 (63.1%)	0 (0%)
Participant19	M	28	Ph.D.	English Literature	16	3 (18.75%)	13 (81.25%)	0 (0%)
Participant20	M	27	Ph.D.	English Literature	9	2 (22.2%)	7 (77.8%)	0 (0%)
Participant21	F	27	Ph.D.	English Literature	28	5 (17.9%)	23 (82.1%)	0 (0%)
Participant22	M	28	Ph.D.	English Literature	11	2 (18.2%)	9 (81.8%)	0 (0%)
Participant23	M	34	Ph.D.	English Literature	14	0 (0%)	12 (85.7%)	2 (14.3%)
Participant24	M	35	Ph.D.	English Literature	8	0 (0%)	8 (100%)	0 (0%)
Participant25	M	28	M.A.	TEFL	20	17 (85%)	3 (15%)	0 (0%)
Participant26	M	24	M.A.	TEFL	23	17 (73.9%)	6 (26.1%)	0 (0%)
Participant27	F	30	M.A.	TEFL	21	20 (95.2%)	1 (4.8%)	0 (0%)
Participant28	F	29	M.A.	TEFL	25	24 (96%)	1 (4%)	0 (0%)
Participant29	F	30	M.A.	TEFL	23	22 (95.6%)	1 (4.4%)	0 (0%)
Participant30	F	38	M.A.	TEFL	61	61 (100%)	0 (0%)	0 (0%)
Participant31	F	36	M.A.	TEFL	22	0 (0%)	21 (95.4%)	1 (4.6%)
Participant32	F	31	M.A.	TEFL	14	7 (50%)	7 (50%)	0 (0%)
Participant33	M	25	M.A.	TEFL	20	15 (75%)	5 (25%)	0 (0%)
Participant34	M	27	M.A.	TEFL	46	35 (76.1%)	11 (23.9%)	0 (0%)
Participant35	M	45	M.A.	TEFL	23	22 (95.6%)	1 (4.4%)	0 (0%)
Participant36	F	31	M.A.	TEFL	11	0 (0%)	11 (100%)	0 (0%)
Participant37	F	23	M.A.	TEFL	14	12 (85.7%)	2 (14.3%)	0 (0%)
Participant38	F	23	M.A.	TEFL	17	8 (47%)	9 (53%)	0 (0%)
Participant39	M	26	M.A.	TEFL	13	11 (84.6%)	2 (15.4%)	0 (0%)
Participant40	F	33	M.A.	TEFL	24	24 (100%)	0 (0%)	0 (0%)
Participant41	M	27	Ph.D.	TEFL	14	7 (50%)	7 (50%)	0 (0%)

| Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153 | **131** Gholamhossein Shahini |

THINKING ABILITY AND ITS IMPACTING FACTORS

Participants	Sex	Age	Degree	Major	Total No. of Qs	No. of routine Qs & percentage	Beyond-routine Qs	
							No. of critical, creative, & caring Qs & percentage	No. of Philo. Qs & percentage
Participant42	F	30	Ph.D.	TEFL	10	6 (60%)	4 (40%)	0 (0%)
Participant43	F	31	Ph.D.	TEFL	21	18 (85.7%)	3 (14.3%)	0 (0%)
Participant44	M	36	Ph.D.	TEFL	7	2 (28.6%)	5 (71.4%)	0 (0%)
Participant45	M	30	Ph.D.	TEFL	16	16 (100%)	0 (0%)	0 (0%)
Participant46	M	35	Ph.D.	TEFL	10	9 (90%)	1 (10%)	0 (0%)
Participant47	M	27	Ph.D.	TEFL	17	13 (76.5%)	4 (23.5%)	0 (0%)
Participant48	M	29	Ph.D.	TEFL	15	10 (66.7%)	5 (33.3%)	0 (0%)
Participant49	F	33	Ph.D.	TEFL	12	1 (8.3%)	11 (91.7%)	0 (0%)
Participant50	F	29	Ph.D.	TEFL	13	0 (0%)	13 (100%)	0 (0%)
Participant51	F	25	Ph.D.	TEFL	22	16 (72.8%)	6 (27.2%)	0 (0%)
Total					**894**	**531 (51.1%)**	**356 (48%)**	**7 (0.9%)**

As it is illustrated, 531 (51.1%) of the questions are routine, 356 (48%) are beyond-routine, and 7 (0.9%) are philosophical which are portrayed in Figure 2:
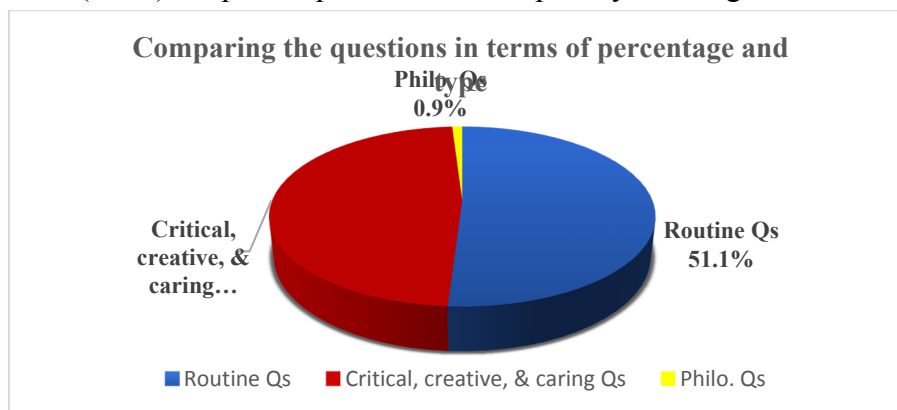

Figure 2. *Percentages of Routine and Beyond-routine Questions Made by the English Literature and TEFL Students in M.A. and Ph.D. Degrees*

According to Figure 2, almost half of the participants' questions were routine, and half were beyond-routine (critical, creative, caring). Therefore, the percentages of these two types of questions are almost equal, indicating their approximately similar status among Iranian EFL students in graduate degrees. The participants' good performance on beyond-routine thinking, in general, and on critical thinking, in particular, in the present

TESL Quarterly	Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**132** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

study, is in contrast with the poor performance of the participants on the same level of thinking ability in other studies (e.g., Anajafi et al., 2009; Azizi-Fini, Hajibagheri, & Adib-Hajbaghery, 2015; Babamohammadi & Khalili, 2005; Eslami & Maarefi, 2010; Hoseini & Bahrami, 2002; Islami et al., 2004; and Mohammadi & Golandouz, 2017). The reason is that the participants in the above-mentioned studies were B.A./B.S. students, whereas the participants in this study were M.A. and Ph.D. students. Hence, the whereabouts of the difference may be attributed to the students' varying degrees. However, with regard to the participants' weak performance in philosophical thinking, there is no difference between the results of the present study and those carried out by Talebpour et al. (2005), Nikkhah (2008), Nouri et al. (2013), Ghorbanalizadeh Ghaziani et al. (2014), Shahini (2018), and Shahini and Nouri (2018 b). As such, it can be concluded that the majority of the Iranian EFL students are not trained to make philosophical questions and consequently show poor performance in their philosophical thinking ability.

Concerning the second research question, the percentages of routine and beyond-routine questions produced by the English Literature and TEFL students are depicted in Table 3:

Table 3.

Comparison of Different Types of Questions Made by the Participants in Terms of Major

Major	Total No. of Qs	Total No. & overall percentage of routine Qs	Total No. & overall percentage of critical, creative, & caring Qs	Total No. & overall percentage of Philo. Qs
English Literature	360	138 (33.7%)	216 (64.6%)	6 (1.7%)
TEFL	534	393 (66.6%)	140 (33.2%)	1 (0.2%)

As it is shown, of the questions made by the participants in both degrees, 138 (33.7%) and 393 (66.6%) are routine, 216 (64.6%) and 140 (33.2%) are beyond-routine, and 6 (1.7%) and 1 (0.2%) are philosophical which are displayed in Figures 3 and 4:
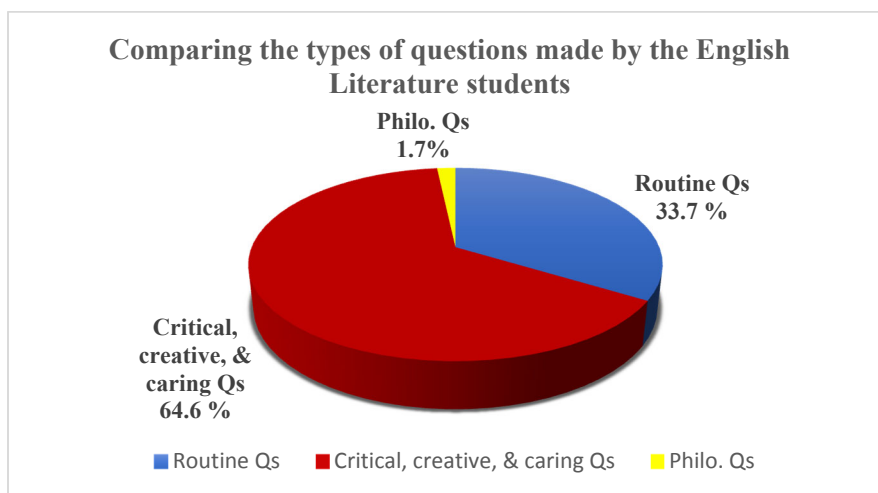
Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**133** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

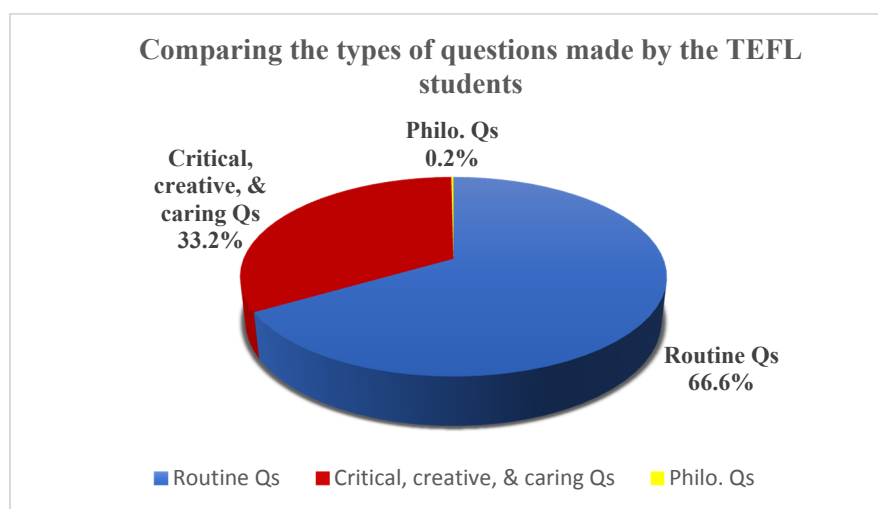Figure 3. *Percentages of Different Types of Questions Made by the English Literature Students*

Figure 4. *Percentages of Different Types of Questions Made by the TEFL Students*

According to Figures 2 and 3, the overall percentage of beyond-routine (critical, creative, caring) questions made by the English Literature students is almost twice that of the TEFL students. And although the overall percentage of philosophical questions is extremely low, the English Literature students generated more philosophical questions than the TEFL students did. Hence, it can be concluded that the English Literature students are more prone to raise beyond-routine questions. This is, to some extent, in

	Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**134** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

harmony with Mall-Amiri and Fekrazad's (2015) study in which they found that there is a relation between EFL learners' type of creativity and their majors.

With regard to the third research question, the total number and percentage of each type of question made by the English Literature students in M.A. and Ph.D. degrees are illustrated in Table 4:

Table 4

Comparison of Different Types of Questions Made by the English Literature Students in M.A. and Ph.D. Degrees

Academic degree	Total No. of Qs	Total No. & overall percentage of routine Qs	Total No. & overall percentage of critical, creative, & caring Qs	Total No. & overall percentage of Philo. Qs
M.A.	212	98 (39%)	110 (59%)	4 (2%)
Ph.D.	148	40 (27.4%)	106 (71.3%)	2 (1.3%)

As it is indicated, of the questions made by the English Literature students, 98 (39%) and 40 (27.4%) are routine, 110 (59%) and 106 (71.3%) are beyond-routine, and 4 (2%) and 2 (1.3%) are philosophical which are displayed in Figures 5 and 6:
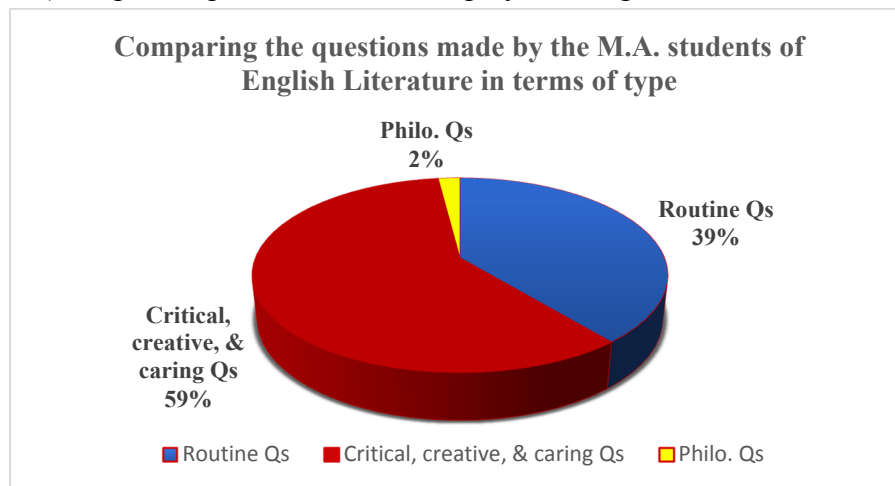

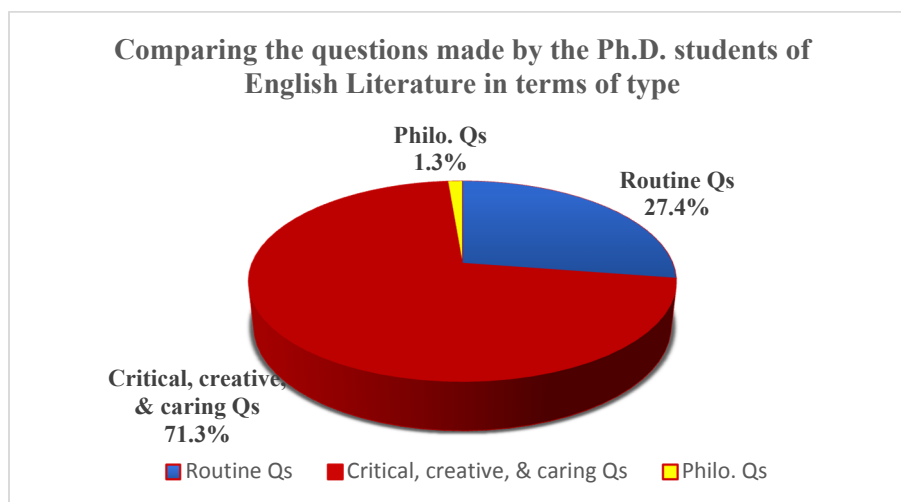Figure 5. *Percentages of Different Types of Questions Made by the English Literature Students in M.A. Degree*

TESL Quarterly	Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**135** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

Figure 6. *Percentages of Different Types of Questions Made by the English Literature Students in Ph.D. Degree*

Figures 5 and 6 indicate that English Literature students with Ph.D. degrees made less routine and more beyond-routine questions than those with M.A. degrees. As mentioned earlier, there can be a link between the students' level of academic degree and their beyond-routine thinking (critical, creative, caring) skills. However, the overall percentage of philosophical questions raised by these students in M.A. and Ph.D. degrees is low, which points out that irrespective of the level of degree, the students' philosophical thinking ability, whether in an undergraduate degree (Shahini & Nouri, 2008 b; Shahini, 2008) or graduate degree is weak.

Concerning the fourth research question, the total number and percentage of each type of question made by the TEFL students in M.A. and Ph.D. degrees are shown in Table 5:

Table 5

Comparison of Different Types of Questions Made by the TEFL Students between M.A. and Ph.D. Degrees

Academic degree	Total No. of Qs	Total No. & overall percentage of routine Qs	Total No. & overall percentage of critical, creative, & caring Qs	Total No. & overall percentage of Philo. Qs
M.A.	377	295 (72.5%)	81 (27.2%)	1 (0.3%)
Ph.D.	157	98 (58%)	59 (42%)	0 (0%)

Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**136** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

As it is manifested, of the questions made by the TEFL students in M.A. and Ph.D. degrees, 295 (72.5%) and 98 (58%) are routine, 81 (27.2%) and 59 (42%) are beyond-routine, and 1 (0.3%) and 0 (0%) are philosophical which are portrayed in Figures 7 and 8:
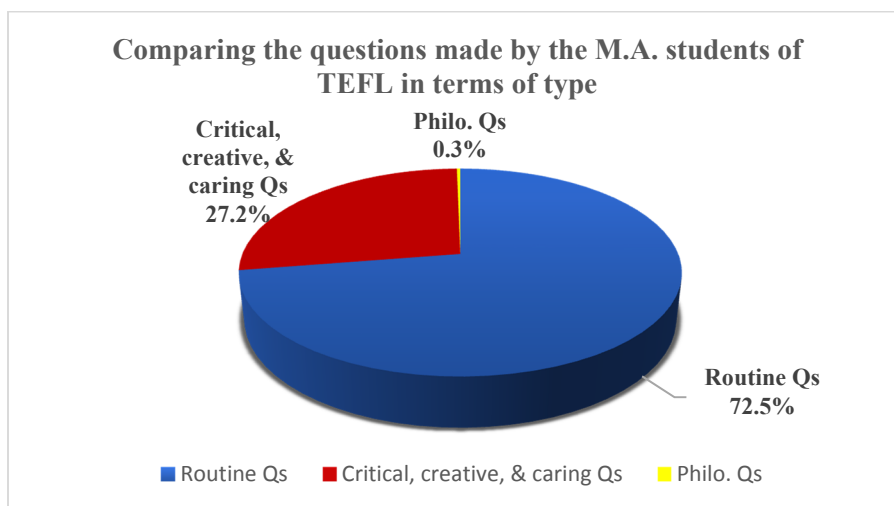

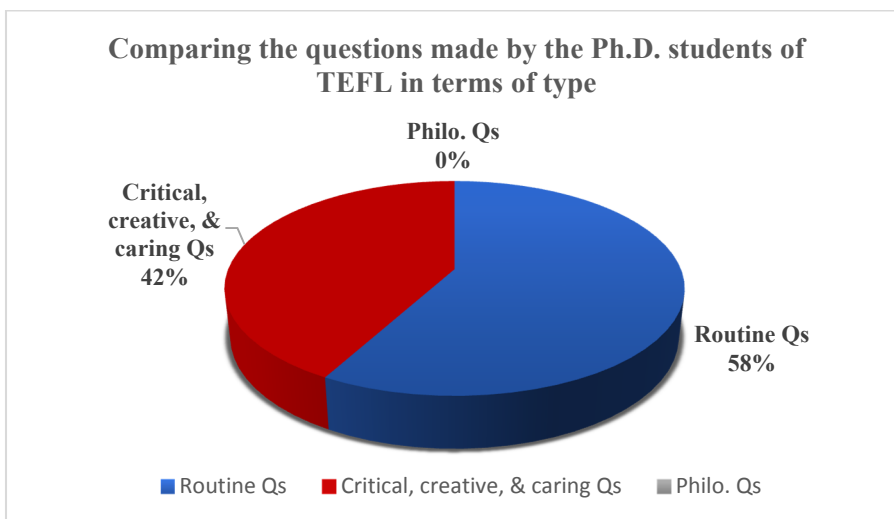Figure 7. *Percentages of Different Types of Questions Made by the TEFL Students in M.A. Degree*

Figure 8. *Percentages of Different Types of Questions Made by the TEFL Students in Ph.D. Degree*

Figures 7 and 8 show that, like the English Literature students in Ph.D. degree, the TEFL students in the same degree made more beyond-routine (critical, creative, caring) questions than those in M.A. degree did, which in turn indicates that the level of academic degree does really matter and plays a crucial role in generating beyond-routine questions. Surprisingly, in comparison with a few philosophical questions made by the students of M.A. degree, the students of a Ph.D. made no philosophical questions, and the production of these questions was found to be none. This also shows that unlike the students of the English Literature for a Ph.D. degree, the students of TEFL in the same degree raised no philosophical question at all. Furthermore, the comparison indicates that the Ph.D. students of TEFL are more in the habit of raising beyond-routine questions, except for philosophical ones than the M.A. students. In addition, since the results of the comparison of the two groups of M.A. and Ph.D. students in both majors are almost similar, it can be concluded that the level of academic degree can be considered a factor influencing people's way of thinking. This can further be supported by the investigation done by Shahini and Nouri (2018 b), who concluded that students with low academic degrees are not accustomed to raising beyond-routine questions, particularly philosophical ones.

Concerning the fifth research question, the factors which led the students to produce and not to produce beyond-routine questions were classified into impeding and promoting ones.

Reasons behind raising routine questions (Impeding factors)

One of the factors that caused the majority of the participants to become superficial thinkers was their nature. They indicated that while some people are thoughtful by nature and tend to ponder over everything they encounter, others do not scratch beneath the surface. As Cottrell (2005) mentions, a person who is shallow by nature is not willing to search for underlying assumptions. According to the participants, some people are easy-going, have a carefree and blithe life void of deep thinking, and are inclined to do things quickly in a short period of time. For example, Participant 34 said,

> I have barely been in touch with complexities of life and I have had a simple, idyllic life with no worries about certain issues. I actually do not involve myself in various problems and complexities. … Another reason might be that I often want things to be done quickly. If I want to think about things so deeply, I will not be so fast.

Therefore, such people usually avoid answering beyond-routine questions because of their complexities (Gregory, 2008) and will not probe into issues as rumination takes

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)
41(3), Summer 2022, pp. 117-153

138
Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

time. They also noticed that childhood is a critical period that should be treated with care, but unfortunately, at this age, children are not allowed to ask or even to think. As Tims (2010) puts it, children are born with an intrinsic ability to think creatively and curiously but, sadly, this ability is soon inhibited by the time they go to school. Or, as Lipman (2003) holds, when children get used to the unchallenging environment of the school, they turn into passive learners who just memorize subject matters.

Another factor that was pointed out was the advancement of technology. Participant 8 said, "I think one of the reasons is that nowadays we are using the internet to answer every question rather than our minds. We have become lazy thinkers." This issue is supported by Taneri (2012), who believes that technological development seems to make people's lives easy but prevents them from thinking. Also, Greengard (2009) mentions that technology is making it difficult for us to think, and the way we need to approach a complicated problem is now changing with the use of technology. In addition, Cottrell (2005) states that "with the internet at our fingertips, we are more used to obtaining answers within minutes, and this can feel uncomfortable if we are used to ready answers" (p. 9). The consequence is that as soon as the students are asked a question of any type, they do not bother themselves to think about the answer but immediately commence searching for the answer on the internet.

Almost all participants pointed out that the educational system in all levels, i.e., from primary school to university, has been a hampering factor against beyond-routine thinking. Participant 34 stated,

> I think one of the reasons is the educational system at school or at language institutes. Teachers at school always asked us to memorize the stuffs. We are used to asking and answering routine questions because we were taught this way. … Teachers at English institutes or universities would not ask challenging questions.

In the same line, students of TEFL stated that most of their courses are memorization-based, and since they are trained to become teachers, they almost always think of teaching language than teaching content. Participant 45 said, "we, students of TEFL, have passed courses related to the methods of teaching which have rarely required us to burrow beneath the surface." According to Orlich, Harder, Callahan, Trevisan, and Brown (2010), the emphasis in the educational system is on memorization and rote learning, which lead to routine and factual discussions. Dewey (1983) also mentions that since students are only limited to classrooms, they cannot relate what they learn to real life. And as Chaffee (1992) and Noushadi (2009) maintain, in spite of the significant role of

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)

41(3), Summer 2022, pp. 117-153

139

Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

deep thinking in the schooling system, learners are not encouraged to think. And Shokouhi and Latifi (2019) maintain that since the focus of reading is on memorization and routinized reproduction of texts, critical thinking is often seen as an unfavorable act of criticizing others in Iran.

The participants also pointed out that the atmosphere of their classes at school and even at university was non-liberal. In other words, students are not allowed to express their opinions freely because most of their teachers have narrow viewpoints on issues and do not motivate students to think. According to Participant 26,

> Most of the teachers, even at the university, do not allow us to voice our opinions. They disagree with us or say our ideas are wrong. This has made us not feel free to express ourselves and consequently our thoughts are suppressed.

According to Paul (1991), teachers are traditionally trained to teach what to think rather than how to think, which in turn results in students' rote learning. However, teachers themselves are forced to obey the authorities and have to follow a special curriculum dictated by them (Haynes, 2002), so there is no room for them to develop critical thinking abilities (Fahim & Sa'eepour, 2011). On the other hand, being a teacher was another constraining factor behind not generating beyond-routine questions. As Astiri (1995) remarks, those teachers who are controlled by authorities have no opportunity to deal with deep questions and do not invite their pupils to discussion and argument.

Another restraining factor was dealing with banal thoughts and superficial people. They mentioned that they are used to following other people's beliefs, for they do not want to be ostracized. As it was asserted by Participant 6,

> Actually, people do not like being rejected by others and mostly follow the proverb "When in Rome, do as the Romans do," which is not good. When you see other people around you thinking of mundane matters, you just learn to be like them. Though you may be a little bit different, the people around you greatly impact your way of thinking.

In addition, they noted that their family's shallow talks were also a hampering factor in developing their beyond-routine thinking skill. Participant 34 stated, "… Our family conversations are very superficial and shallow. Besides, when we talk, we do not think deeply about the meaning, the negative effects, and the consequences."

According to the participants, how religion is taught and treated may be another

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)

41(3), Summer 2022, pp. 117-153

140

Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

suppressing factor. Participant 45 accounted,

> Religion has also been dictated to me. I remember when I had a question on religious issues and I asked it from my family or my teachers, their answers were not convincing but I had to accept that for I did not want to be rejected.

In step with this point, as Jack, Friedman, Boyatzis, & Taylor (2016) believe, analytic thinking and religious beliefs are not only opposite, but also competing factors and as Gervais and Norenzayan (as cited in Finley et al., 2015) hold, the more analytic thinkers people are, the less religious they will be. Some researchers (e.g., Pennycook, Cheyne, Seli, Koehler, & Fugelsang; Shenhav, Rand, & Greene, as cited in Finley et al., 2015) have found that analytic thinking and religious beliefs have negative relationships. That is to say, if you think deeply, you may have to question religious beliefs, or you may doubt them.

Another limiting factor was the weak performance of mass media. According to the participants, television, one of the most influential media, provides low-quality and ordinary shows and movies which restrict people's thoughts. Participant 6 said that "television, which can have a huge effect on people's thinking, is not that effective. The TV shows are not thought-provoking. You cannot learn much by watching television." In compliance with this quote, Peterson, Peterson, and Carroll (1986) claim that watching television reduces children's imagination and creativity. The participants also added that children's cartoons have more negative effects than positive effects and are just entertainments that do not provoke children's thinking ability and creativity. Kincheloe and Weil (2004) express that we sometimes become so involved in media programs that we fail to think critically to find out their messages and purposes.

According to the participants, the negative effect of all the above-cited factors may stem from society. Mead (1934) states that a person's mind is shaped by their social relationships with others and their environment. Accordingly, sociocultural factors can closely relate to one's thinking ability. Participant 34 maintained that "our society treats people in a way that they will not be able to challenge each other. People are not invited to speak up freely or think deeply. It is presumed that the authorities are the ones who make up the rules and the subordinates have to follow them." Paton (2005) believes that the way critical thinking is treated varies from one society to another based on cultural norms. According to Atkinson (1997), Canagarajah (2002), and Pennycook (2010), there is no compatibility between critical thinking in the West and the East. Critical thinking requires an open society where citizens can freely raise their voices and openly discuss

| Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153 | **141** Gholamhossein Shahini |

THINKING ABILITY AND ITS IMPACTING FACTORS

controversial issues with tolerance and mutual respect (Atkinson, 1997). In the West, it is based on evidence and criteria, logical reasoning, and open-mindedness (Facione, 2011), but in Iran, critical thinking, according to Shokouhi and Latifi (2019), is often seen as an unfavorable act of criticizing others and also a sign of prejudice and bigotry (Shokouhi and Zaini, 2022).

According to some participants, another factor that impeded them from making beyond-routine questions was the difficulty of such questions. For example, Participant 6 mentioned,

> I personally avoid such complex questions because such deep questions somehow occupy my mind and I feel that I may not come to a good conclusion because they do not have a definite answer and each aspect of the issue could be true. Then, after some time, someone else questions or rejects the previous person's beliefs; so, you are always vacillating between different ideas.

Relatedly, as Cam (1995) maintains, some concepts are so complex that they ask for other concepts for further clarification. In this regard, Gregory (2008) states that various opinions can be considered true answers to the same philosophical question, and it is not easy to determine the best answer.

Reasons behind raising beyond-routine questions (Promoting factors)

According to the participants, among the factors that contributed to improving their beyond-routine thinking ability, the most important one was their innate disposition. They said people should first have the intrinsic potential to be deep thinkers. For example, Participant 4 stated, "I have had the disposition to think deeply since childhood, and now it is increased." Purvis (2009) found that one of the factors that develop a person's critical thinking is their personal characteristics. In their study, Nosratinia and Sarabchian (2013) concluded that people's personality traits and their critical thinking abilities are interconnected.

Being an introvert was another factor influencing the participants to become deep thinkers. Some pointed to the 'propensity for having privacy' as an operative element in cultivating their thoughts. For instance, Participant 36 held,

> I always liked to be alone. I was not a social child. I preferred reading books rather than playing with others. … I did not like asking questions from elder people. I would rather think myself and come to my own conclusions. That made me a thinker.

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)

41(3), Summer 2022, pp. 117-153

142

Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

Similarly, Dagostino (2016) mentions that introverted people are insightful, self-aware, attentive to details, and deep thinkers. He adds that as people are alone most of the time, they have more opportunities to think and solve their own problems or make decisions.

Being interested in reading stories from childhood was another facilitating factor in making beyond-routine questions. A few participants mentioned that they had been interested in fiction stories and believed that such stories could help people ameliorate their beyond-routine thinking ability. For example, Participant 18 said, "I was interested in reading stories since childhood. … I was in love with fiction stories and read such stories a lot. They were really effective [in developing my thoughts]." In harmony with this point, Khatib and Mehrgan (2012) conclude that using literary short stories in TEFL classes effectively develops students' critical thinking.

Some of the participants mentioned that they were writers of English stories, and this had assisted them in detecting other authors' purposes in writing a literary piece which, in turn, demanded high-order thinking skills. Participant 36 asserted that,

> As I am a writer, I know that each story definitely has some hidden meanings that should be unfolded and that is the reason why I always think about different aspects of a story/subject, talk to myself about it, and accept or reject the author's ideas.

According to the participants, writers have different perspectives about life's events, and since it is not right to judge people from a single perspective, people should think deeply about the events and take account of multiple possible perspectives.

Most of the participants claimed that they always attempted to ponder over the events happening around them to understand how to live a better life and how to socialize with others appropriately. They stated that since they started thinking more deeply about the issues, they noticed what they had not noticed before. As an example, Participant 13 stated,

> When I was younger, I used to judge people the wrong way. For example, I once met someone for the first time and I thought she was not a nice person. But after a while, after several meetings I figured how nice she was.

In this respect, Participant 49 said, "…the passage of time will change people's viewpoints. As time passes, people obtain different experiences. Different experiences in my life showed me that nothing can be absolute and that I have to think more deeply over the issues."

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)
41(3), Summer 2022, pp. 117-153

143
Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

Another contributing factor, according to the participants, was the environment in which they were raised. Participant 4 stated that "the way a child is raised, the books a person reads, the people a person is in touch with, … all affect the way he thinks." In the same vein, Bickhard (1992) argues that the events happening around individuals will have impact on them both microgenetically and developmentally. Plomin and Daniels (2011) also state that environmental factors have more influence than heredity on one's personality, psychopathology, and cognition and that the most important source of environmental variance, even for twins (after childhood), is the non-shared environment.

Nearly the majority of the participants, the English Literature students (Table 2), who had raised beyond-routine questions stated that the nature of their courses was the most important factor which enabled them to ameliorate their thinking ability. Participant 13, in this regard, said,

> We, the students of English Literature, are used to thinking deeply over the issues. … My major has a great impact on my way of thinking. We are always asked to read between the lines. We have discussions in the class most often and are given opportunities to speak up freely.

As Helterbran (2007) puts it, discussions shift the focus of attention from the teacher to the students and develop students' critical thinking ability at any level of education. As to the course of Criticism, Participant 23 stated that,

> We learned about different literary-philosophical schools from the time of Aristotle or Plato or even before Plato which helped us analyze texts better and see them more deeply. … In our major, we have courses such as Reader-Response Criticism in which we learn how to analyze what the readers of a text would think of … [or] Authorial Intention in which we analyze the author's intention in creating their literary piece.

Or Participant 5 added that "in our M.A. programs, we had some courses on philosophy and postmodernism which made me think more deeply and challenge the concepts." Postmodernists, as Bishop (as cited in Nath, 2014) puts it, are dubious about fixed definitions of concepts and do not believe in objective truths and scientific methods. Postmodern education involves issues such as creative and critical thinking which help people think profoundly (Rajshree, 2012).

Unlike the above-cited points, other participants believed that neither the university courses nor discussions are so much effective in helping students to think deeply, but they

Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**144** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

just make them aware of the existence of different points of view. To them, one's disposition towards deep thinking is by far more important. For example, Participant 18 pointed out that,

> Studying courses at university was not effective at all. … Literature is not something that could be learned academically. … I cannot say that university courses have been totally useless, but from some levels on they were not that much fruitful. Class discussions only show you there are different viewpoints. You cannot learn so much from those discussions.

Method of teaching was another expediating factor. According to the participants, some professors use their creativity in teaching to solidify and extend their students' thinking. Participant 13 in this respect stated that,

> There were few professors who were really different from the rest. For instance, there was a professor in B.A. degree who would bring the lyrics of different songs to the class and analyze them and by doing so we found out that these types of songs should not be listened to just for fun, as we thought earlier, but they have deeper layers of meaning than we previously assumed.

Some teachers, who use imagination, creativity, and beyond-routine questions in their teaching, assist their students in becoming thoughtful people. Taneri (2012) argues that in order to develop students' creative thinking ability, teachers should be enthusiastic and encourage parents to strive to hone their children's creativity.

The family was another promoting factor. Some participants revealed that their families never imposed their beliefs on them and always felt free to voice their opinions and make their own decisions. They were also encouraged to use their imagination and creativity in childhood. Participant 4 in this respect cited,

> The people around me always thought about different things deeply. They always discussed things and I learned to be like them. … My family let me reflect on things in order to reinforce my opinions and my thoughts. … I was never forced to do what others would ask me to do.

In support of the above quote, parents are considered the first teachers of children whose way of thinking is passed on to them (Anning & Ring, 2004). Parents are also influenced by the behavior of their own parents (Grusec & Danyliuk, 2014), who have not been used to looking at issues thoughtfully. According to Ornstein and Levine (2008),

Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**145** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

families can play a major role in improving their children's way of thinking.

Another factor was reading a good deal of books in a critical way. Participant 49 stated that "I have read lots of books. Reading different books makes you familiar with different subjects and can extend your thoughts, especially if you read with a critical eye." In conformity with that, Kohzadi, Azizmohammadi, and Samadi (2014) maintain that readers can expand and deepen their critical thinking ability through various reading procedures, i.e., interpretation, inference, and examining ideologies embedded in texts.

Another factor was chatting with various people, which makes one attuned to many experiences and viewpoints. Participant 2, in this respect, said,

> I am a member of a TELLSI (Teaching English Language and Literature Society of Iran) group on Telegram. Sometimes, some of the members provide others with some interesting ideas about the relevant issues and I can learn from them. I can say that this has helped me be a little bit more sensitive about my life experiences.

Based on the aforementioned quotation, being a member in academic groups on Telegram and sharing ideas can affect one's style of thinking. Online chatting and online teaching and learning are effective in improving students' critical thinking. According to Kurubacak (2006), in online synchronous communications, students' effort to build online knowledge networks synchronously can develop their critical thinking ability by addressing and discussing real-life experiences.

Another facilitating factor referred to by one of the participants was attending chat classes and discussing different issues or animations and movies watched in the class. Participant 13 mentioned,

> I used to go to a chat class several years ago. All the students in the class had to discuss different topics posed in the class. The students had to think and talk about animations watched in the class as well. I think this has had a positive effect on my way of thinking too.

According to Ekahitanond (2011), watching movies can positively affect individuals' creative thinking ability; thus, movies should be used as a complementary factor to teaching in class.

Unlike those who had raised routine questions and believed that beyond-routine questions are difficult to raise and answer, a few participants claimed that making beyond-routine questions is less time-consuming and also easier than making comprehension-based questions. For example, participant 23 said,

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)

41(3), Summer 2022, pp. 117-153

146

Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

> If I want to make comprehension-based questions, I need lots of time to read a text [more than once] and make detailed questions. Posing beyond-the-text questions is less time-consuming because for making such questions, you only need to read a text and get a general understanding.

In accord with the above-cited quote, beyond-routine questions are said to be general; that is, one needs to get the whole message of a text to be able to make beyond-routine questions (Cam, 1995).

Conclusion

The finding that nearly half of the participants were not able to generate beyond-routine questions may lead to the conclusion that they were in the habit of superficial thinking and that such thinking might not be welcomed in the related context. Moreover, in the mainstream educational setting, students may find learning fruitful mostly for their exams and not their lives. In addition, as Dewey (1983) mentions, for reflective thinking to thrive, a society must be democratic. The educational system in the current EFL context based on the inhibiting factors is reductionist, taking away reasoning from students and pushing them toward rote learning. Another point that can be concluded is that to raise beyond-routine questions, an amalgamation of different factors such as an open social context, a descent family environment, an innate disposition toward reflective thinking, and an appropriate teaching method are needed. Moreover, as the results showed that the English Literature students were more able to make beyond-routine questions than the TEFL students, it can be inferred that a major can be considered an essential factor affecting one's way of thinking. Furthermore, since the students of English Literature/TEFL in Ph.D. degree outperformed those in M.A. degree, it can also be concluded that the academic degree can be regarded as an aiding factor impacting the level of thinking capability as well.

In searching for the major factors extracted from the participants' statements, based on the reasons behind EFL students' un/willingness to raise or not to raise beyond-routine thinking, one may reach two main categories of impeding and promoting factors which include three themes as 1) nature, 2) nurture, and 3) the essence of beyond-routine questions along with their own subcategories. The impeding factors are depicted in Diagram 1:
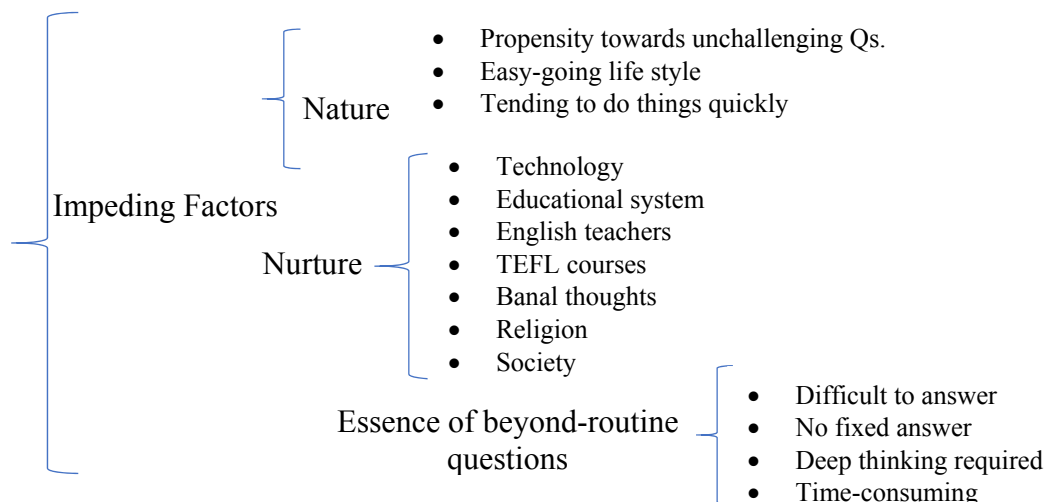
Impeding Factors

Nature
- Propensity towards unchallenging Qs.
- Easy-going life style
- Tending to do things quickly

Nurture
- Technology
- Educational system
- English teachers
- TEFL courses
- Banal thoughts
- Religion
- Society

Essence of beyond-routine questions
- Difficult to answer
- No fixed answer
- Deep thinking required
- Time-consuming

Diagram 1. Factors Impeding Beyond-Routine Thinking Ability The promoting factors are illustrated in Diagram 2:

Promoting Factors

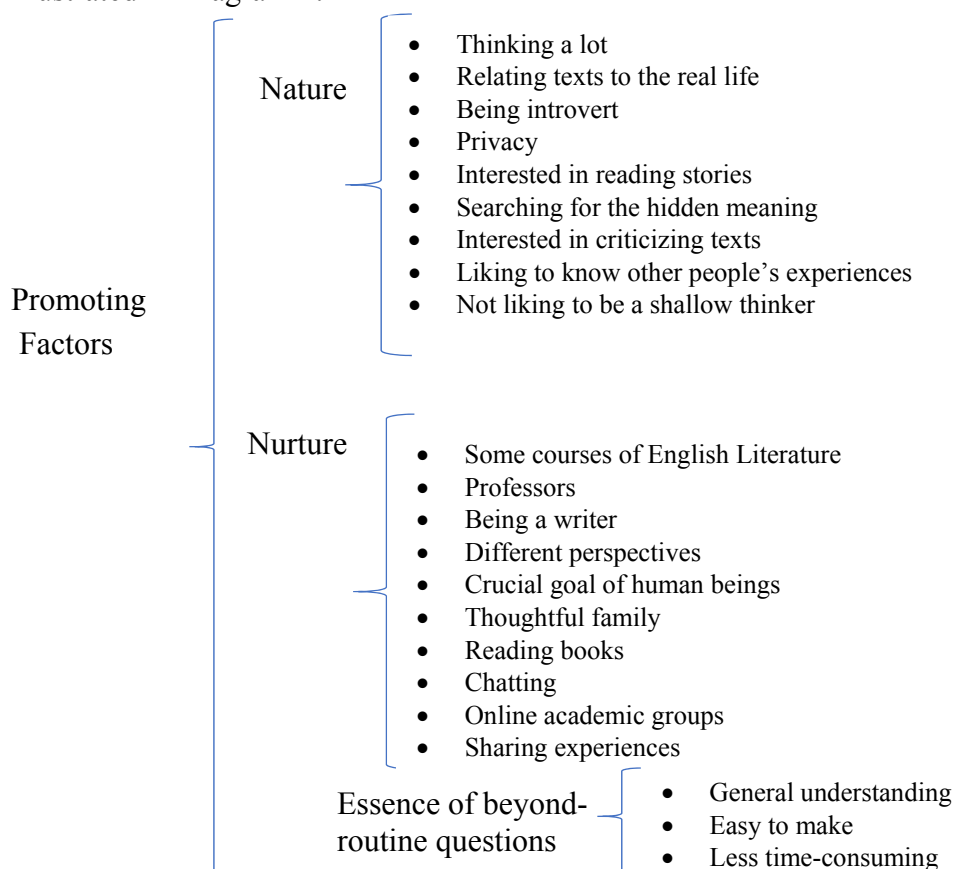**Nature**
- Thinking a lot
- Relating texts to the real life
- Being introvert
- Privacy
- Interested in reading stories
- Searching for the hidden meaning
- Interested in criticizing texts
- Liking to know other people's experiences
- Not liking to be a shallow thinker

Nurture
- Some courses of English Literature
- Professors
- Being a writer
- Different perspectives
- Crucial goal of human beings
- Thoughtful family
- Reading books
- Chatting
- Online academic groups
- Sharing experiences

Essence of beyond-routine questions
- General understanding
- Easy to make
- Less time-consuming

Diagram 2. Factors promoting Beyond-Routine Thinking Ability

Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)
41(3), Summer 2022, pp. 117-153

148
Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

Implications

Firstly, the findings of the present study may assist the EFL stakeholders in knowing the barriers to beyond-routine thinking ability and set conditions for curriculum planners and teachers to help students to view the issues reflectively. Secondly, though there are a few ways to determine the status of high-order thinking ability, the present technique of asking the readers to make question(s) on the texts and then analyzing their questions based on the hybrid question framework can be utilized to realize the level of students' thinking ability both in EFL and other academic contexts.

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Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)
41(3), Summer 2022, pp. 117-153

149

Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

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(Formerly Journal of Teaching Language Skills)

41(3), Summer 2022, pp. 117-153

150

Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

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Teaching English as a Second Language Quarterly (TESLQ)
(Formerly Journal of Teaching Language Skills)

41(3), Summer 2022, pp. 117-153

151

Gholamhossein
Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

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	Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**152** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

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	Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills) 41(3), Summer 2022, pp. 117-153	**153** Gholamhossein Shahini

THINKING ABILITY AND ITS IMPACTING FACTORS

Appendix A

The Tale of Peter Rabbit (A summary)

Read the following passage and then write <u>whatever questions</u> (open-ended) come to your mind based on that.

Once upon a time, there were four little Rabbits and their names were: Flopsy, Mopsy, Cotton-tail and Peter. Their mother, on her way going out, said "my dears, you can go into the fields but don't go into Mr. McGregor's garden. Your father was put in a pie by him." But Peter ran away to his garden and ate some fruits. Mr. McGregor saw him and called out, "Stop thief!" Peter who was most dreadfully frightened, rushed all over the garden for he had forgotten the way back to the gate. Peter saw an old mouse and asked her way to the gate but she had such a large pea in her mouth that she could not answer. Finally, Peter could run out of the garden. When he got home he was so tired that he fell down on the floor and shut his eyes. But Flopsy, Mopsy, and Cotton-tail had bread and milk and blackberries for dinner.

Appendix B

Ladan and Laleh Bijani (A summary)

Read the following passage and then write <u>whatever questions</u> (open-ended) come to your mind based on that.

Ladan and Laleh Bijani were Iranian Law graduates. They were conjoined twin sisters, joined at the head. They faced some difficulties. Since they had to study together, they needed to choose a common working path. Most other personal decisions also had to meet each other's agreement. For these and other reasons, they had wanted to be separated. They travelled to Singapore. Even though they were warned by the doctors that the surgery was very risky, the sisters were very determined and went to the operating table but died after their complicated surgical operation. They were buried in separate tombs, side by side.

Appendix C

The Semi-Structured Interview Questions

1. Did you write all the questions that came to your mind? If not, why?
2. With what purpose did you read the texts? Why?
3. Do you usually look at the surface or the depth of the issues? Why?
4. Why did you not make beyond-routine questions?
5. Why did you not make routine questions?
6. Don't you think it was possible to look at the texts more deeply?
7. Is it difficult to see beyond a text? Why?
8. What are the factors that might have affected your way of reading the texts?