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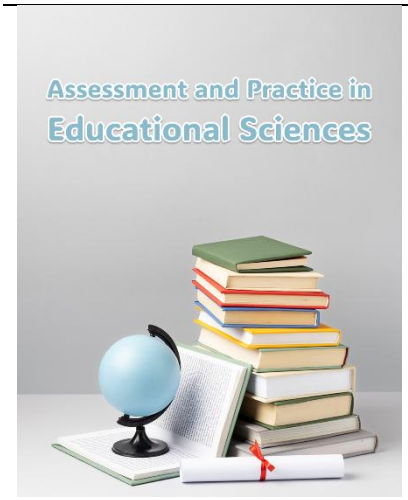

The Impact of Growth Mindset Pedagogy on Listening Comprehension in Iranian EFL Learners

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ABSTRACT

This study aimed to examine whether instruction based on growth listening mindset principles significantly improves listening comprehension among Iranian EFL learners compared to traditional teaching approaches. A quasi-experimental design with a non-equivalent control group pretest–posttest was employed. The sample consisted of 144 Iranian EFL learners from Kish Khoban and Kish Mehr Institutes, randomly assigned to experimental (n = 72) and control (n = 72) groups. The experimental group received 16 sessions of growth mindset-based listening instruction, incorporating explicit and implicit training strategies that emphasized effort, resilience, and brain plasticity, while the control group underwent conventional listening instruction. Data were collected using the listening sections of IELTS 6 (pretest) and IELTS 8 (posttest), which were validated and reliable measures of listening comprehension. Statistical analyses included MANCOVA and two-way ANCOVA to evaluate the effects of growth mindset pedagogy, gender, and their interaction. Results showed a significant main effect of growth mindset pedagogy on listening comprehension ($F = 28.43$, $p < .001$, $\eta^2 = .170$), with the experimental group outperforming the control group on posttest scores. The main effect of gender was non-significant ($F = 0.001$, $p = .993$), but the interaction between gender and pedagogy was significant ($F = 4.94$, $p = .028$, $\eta^2 = .034$), indicating that while both males and females benefitted, female learners experienced slightly greater improvements in listening comprehension. The findings confirm that growth mindset pedagogy significantly enhances listening comprehension in Iranian EFL learners and is effective across genders, with stronger effects for females. The study underscores the potential of mindset-based interventions to foster resilience, motivation, and performance in receptive language skills, and highlights implications for EFL pedagogy, curriculum design, and teacher training.

Keywords: Growth mindset; Listening comprehension; EFL learners; Pedagogy; Mindset intervention; Language learning

Introduction

Listening comprehension is universally recognized as one of the most fundamental skills in second language acquisition (SLA), yet it remains one of the most challenging for learners to develop effectively. In the context of English as a Foreign Language (EFL), especially in Iran, listening is often perceived as a passive skill, while in reality it involves complex cognitive, linguistic, and metacognitive processes (1). Scholars argue that listening is not merely about hearing words but requires active decoding, integration of bottom-up and top-down processing, and continuous reconstruction of meaning (2). As such,

pedagogical approaches that can both motivate learners and equip them with resilient strategies are vital. Within this landscape, growth mindset pedagogy has recently emerged as a powerful framework for transforming how learners perceive their listening abilities and how educators design instructional practices (3).

The concept of mindset traces back to decades of psychological research conducted by Carol Dweck, who demonstrated that individuals' beliefs about the malleability of intelligence and ability significantly affect their motivation, persistence, and achievement (4). According to mindset theory, learners with a fixed mindset view intelligence and abilities as static, innate traits, whereas those with a growth mindset believe that abilities can be developed through effort, strategies, and perseverance (5). These distinctions influence how learners respond to challenges, setbacks, and feedback (6). A fixed mindset leads learners to avoid risks, resist feedback, and disengage when faced with failure, while a growth mindset encourages resilience, strategic adaptation, and long-term persistence (7).

In the educational domain, mindset theory has been extended to various contexts. For instance, research has shown that adopting growth-oriented beliefs enhances learners' academic resilience and supports the development of self-regulatory capacities (8). Claro et al. further demonstrated that growth mindset beliefs buffer against the negative effects of poverty on academic achievement, underlining their relevance across diverse socio-economic contexts (9). Recent reviews reaffirm that growth mindset beliefs are associated with enhanced engagement, higher expectations for achievement, and more positive attitudes toward learning (10, 11).

In the field of SLA, the application of mindset theory is relatively recent but increasingly influential. Language mindsets, defined as learners' beliefs about whether language ability is fixed or malleable, have been linked to motivation, willingness to communicate, and strategy use (12). Learners with growth language mindsets view language learning as a process that improves through effort, leading them to engage more actively and persist in the face of difficulties (13). By contrast, fixed language mindsets often lead to avoidance, lower self-efficacy, and decreased perseverance (14).

Research has demonstrated that language mindsets influence both cognitive and affective dimensions of learning. For example, growth language mindsets foster meaning-making and sustain motivation even in challenging tasks (13). Lanvers found that targeted interventions can shift students' attitudes toward modern languages, resulting in more positive engagement and increased willingness to participate in communicative tasks (15). Similarly, Lou and Noels highlighted that growth mindset beliefs are particularly beneficial for linguistic minority students, where they bolster perceived proficiency and resilience (16).

The relationship between mindset and language learning outcomes has been systematically explored in recent meta-analyses. A comprehensive review confirmed that language mindset beliefs are significantly associated with learners' proficiency, motivation, and self-efficacy (17). Likewise, Cai et al. identified core features and barriers to the implementation of growth mindset pedagogy in language classrooms, underscoring both its promise and the practical challenges in real-world contexts (18).

Although reading, writing, and speaking have attracted more attention in mindset research, listening has often been overlooked despite its centrality in language acquisition. Listening accounts for the majority of communicative activity in real life and serves as the foundation for developing other skills (19, 20). Yet it is consistently reported as one of the hardest skills to master, requiring learners to process rapid speech, varied accents, and contextual cues (21). Zanjani and Izadpanah emphasized that listening provides critical input for language learning, influences pronunciation, vocabulary, and grammar acquisition, and supports holistic comprehension (22).

Despite its importance, listening pedagogy has traditionally relied on repetitive exercises with limited metacognitive scaffolding. Growth mindset pedagogy offers a novel solution, encouraging learners to view listening not as an innate talent but as a skill that can be developed through practice and feedback (23). In a recent study, listening-focused growth mindset

training improved learners' resilience, self-competence, and overall performance in listening exams (23). Such findings align with broader evidence that mindset interventions can enhance engagement and performance across skills and contexts (3, 24).

Several studies have illustrated how mindset interacts with other psychological and contextual factors to shape language learning. Khajavy et al. showed that grit and growth language mindsets together predict persistence and achievement in foreign language learning (25). Wang et al. highlighted the mediating roles of classroom climate and emotions, finding that growth language mindsets are associated with greater willingness to communicate (26). Laurell et al., adopting a socio-cultural perspective, demonstrated that growth-mindset pedagogy fosters collaborative learning cultures, enabling students to co-construct meaning and resilience (27).

Mindset interventions have also been shown to reduce stereotype threat and enhance performance among disadvantaged groups. Sahagun et al. implemented a growth-mindset intervention with higher education students and reported notable improvements in motivation and standardized test performance (24). Similarly, Rissanen et al. found that Finnish elementary school teachers successfully integrated mindset pedagogy into everyday teaching, leading to more resilient and motivated learners (28).

While the evidence for growth mindset pedagogy is promising, not all studies report unequivocally positive outcomes. For instance, Xie and Zhang, studying broader educational dynamics, caution that growth interventions may interact with data use, institutional practices, and contextual barriers in ways that complicate their effectiveness (29). Lou and colleagues also warn that mindset effects can vary by learner background, task type, and cultural context (16). These mixed results underscore the importance of tailoring interventions to specific skills and settings.

Additionally, scholars have raised concerns about the oversimplification of growth mindset theory. Dweck herself has revisited the construct, emphasizing the need to clarify what having a growth mindset "actually means" and to avoid superficial applications (5, 10). Yeager and Dweck argue for a nuanced view, highlighting that the effects of mindset interventions depend on their design, implementation, and the learners' context (8, 11).

Recent scholarship has advanced understanding of growth mindset in SLA, providing fresh insights relevant to the present study. Yao and Zhu modeled the interplay between language mindsets, goal orientations, and feedback-seeking behavior in Chinese EFL learners, confirming that growth beliefs enhance resilience and adaptive feedback use (30). Zhao et al. demonstrated that growth mindsets significantly improve high school students' subjective well-being, mediated by grit and achievement motivation (31). Liu highlighted the dual roles of growth mindset and emotional intelligence in supporting academic buoyancy among university students (32). Zhang and Wu reported that teachers' growth mindsets, school climate, and parental support moderate the link between students' growth beliefs and achievement, illustrating the systemic nature of mindset processes (33).

Further, Mashraki explored the relationship between fixed and growth mindsets, academic motivation, and engagement among teacher-training students, offering evidence of the complex interactions between these constructs (34). These findings reinforce that mindset is not an isolated belief but part of a broader psychological ecosystem influencing resilience, motivation, and learning.

Within Iran, English language learners often face particular challenges in listening, stemming from limited authentic exposure, traditional teaching methods, and test-driven curricula. Previous work has emphasized that Iranian learners frequently rely on rote memorization strategies rather than adaptive listening skills (35). While speaking and grammar have received considerable pedagogical attention, listening remains under-researched and under-taught, despite learners' persistent difficulties (22).

Integrating growth mindset pedagogy into listening instruction offers a timely intervention. By reframing listening difficulties as opportunities for growth, learners may become more resilient, engaged, and strategic in their practice (23). Given the lack of comprehensive research specifically addressing growth mindset in listening pedagogy in Iran, this study addresses an urgent gap.

Taken together, prior research underscores the transformative potential of growth mindset pedagogy but also highlights the need for context-sensitive, skill-specific applications. Listening, despite being one of the most vital skills in communication and language acquisition, has not been systematically studied through the lens of growth mindset pedagogy in the Iranian EFL context. Building on the theoretical framework of mindset (4, 5), empirical evidence from SLA (13, 25), and recent advances (30, 32), this study seeks to fill this research gap.

The purpose of the present research is therefore twofold: first, to examine whether instruction grounded in growth listening mindset principles significantly enhances Iranian EFL learners' listening comprehension; and second, to contribute to the broader SLA literature by extending growth mindset pedagogy to a receptive skill that has long been marginalized.

Methods and Materials

The main part of the study intended to see whether instructing growth language mindset principles has a significant effect on listening skill of Iranian EFL learners, Quasi Experimental Design was utilized and among its different versions, Non-equivalent Control Group Pretest- posttest Design was used. Rashtchi and Birjandi (2018) state that via randomization one can get the best possible kind of research design, however, randomization is not always feasible. Thus, to control more variables, quasi- experimental design can be used. It has many names such as Non-equivalent Control group pretest-posttest Design. This design was implemented because randomization was not possible. Thus, intact classes and subjects were used but they were randomly assigned into experimental and control groups, N= 144. Non-random sampling could be used and among different versions, self-selecting type was considered (Best & Kahn, 2006). The more similar the control and experimental groups are at the onset of the experiment, the more equivalence is verified by the subjects' scores on the pretest and therefore, and the stronger is the control in the experiment. As posttest, the listening parts of another IELTS was carried out. Therefore, Non-equivalent control group pretest-posttest Design as one kind of the Quasi-Experimental designs was utilized since randomization was not possible.

Moreover, in the study, there were two main variables; listening skill and growth mindset pedagogy which are our dependent and independent variables respectively.

Participants

The total sample of the research consists of 289 Iranian EFL learners studying in Kish Khoban and Kish Mehr Institutes located in Zanjan, Iran. The research question dealt with teaching the principles of growth listening mindset. In order to answer the question, 144 language learners who volunteered to participate in the research were placed in two experimental and control groups randomly. 72 of them were in the experimental group and 72 were in the control group.

Instrumentation

For the research hypothesis, 144 language learners who volunteered to participate in the research were placed in two experimental and control groups randomly, the former went through Growth Mindset pedagogy as treatment of the study. As posttest, the listening part of another IELTS was carried out.

Data Collection

1. Pretesting

Next, the listening section of the IELTS test was administered. The test was taken from IELTS 6 of Cambridge series books. This test is widely recognized for its reliability and validity in measuring English listening comprehension. All the series are real exams already administered to the test takers. It has been extensively researched and shown to effectively assess a range of listening skill, including understanding main ideas, specific details, and implied meaning (Xie & Zhang 2021; Jin & Cortazzi, 2017).

While the IELTS test is designed for general English proficiency, its listening section has been found to be an exact measure of academic listening abilities, making it a valid tool for the current research. Furthermore, its use as a benchmark allows for comparisons with existing studies and strengthens the external validity of the findings. Although the Cronbach's Alpha reliability (0.89) for the pretesting which was the listening section of the IELTS was obtained, following measurements were taken into accounts to yield maximum credibility:

1)The source of pretest and posttest was the same source which was IELTS.

2) The IELTS is one highly standardized and widely used test and its validity and reliability had been proved.

3) Due to the fact that the learners of the research were in the institute, the academic IELTS was used.

4) Based on the scores of listening sections of the IELTS, the Ss were classified into strong and weak listeners as it aligned with the purpose of the study.

5) The listening section of the IELTS was already used independently with acceptable validity and reliability in other studies.

6) Other sections of IELTS were already used independently in different studies.

7) Having asked some high achievers in IELTS and consulted some scholars, the researcher realized that IELTS listening section could cover a wide range of listening questions from short answers to matching and could truly test the listening skill of the learners.

8) Using the ideas of a panel of experts, the researcher found out that just the listening section could serve the purpose of the study and no need to get further validity and reliability.

9) Some other statistical procedures were done to prove the abovementioned statements such as acceptable level of mean and SD, etc.

To investigate the null hypothesis holding that training and instruction of Language Learning Mindset has no impact on listening skill, out of 289 students, the researcher selected 144 students who were volunteers to participate in the study and randomly assigned them into experimental and control groups. The experimental group received the treatment whereas the control group receives placebo and normal instruction.

2. Treatment

A growth-mindset teaching pedagogy that supports students in cultivating a growth-mindset belief atmosphere about their own abilities was created and evaluated in this study which was based upon the works of Zeeb, 2020 and Sahagun, 2021. A combination of Zeeb's and Sahagun's pedagogical approaches was primarily implemented in this study, with some modifications made by the researcher during practice. The researcher implemented a mindset training program that incorporated both explicit and implicit training phases. During the implicit stages, the researcher, who also served as the instructor, provided growth listening mindset feedback to enrich the regular sessions. The experimental group received the mindset training, while the control group participated in a conventional course.

Within the quasi-experimental study, out of 144 students there were 30 women (41.7%) and 42 men (58.3%) in the experimental group and 36 women (50%) and 36 men (50%) in the control group. The mean and standard deviation of the age of the participants in the experimental group were 19.23 and 4.26, and in control group were 19.55 and 3.66 years, and in the experimental group, the educational level of 14 people (19.4 percent) was below a diploma. 24 people (33.3 percent) had a

diploma and 34 people (47.3 percent) had a diploma. In the control group, the education level of 14 people (19.4 percent) was below diploma, 18 people (25 percent) had diploma and 40 people (55.6 percent) had more than diploma.

The students in the treatment condition got both explicit and implicit pedagogy. Students in the control condition did not receive this kind of instruction which will be scrutinized later on. We measured students' growth mindsets through the newly developed listening mindset questionnaire and ran the listening section of the IELTS (pretest), and immediately after the training which lasted 4 months i.e 16 sessions, another test of listening section of the IELTS was run (posttest) for both groups. In the control condition, the students did not receive such training.

The training comprised 16 sessions, each lasting 90 minutes. The primary objective of these sessions was to introduce and reinforce classroom norms, promote growth mindset feedback, and convey intervention concepts. The training syllabus was collaboratively developed by the researcher and subject matter experts to ensure theoretical and practical alignment. The first part of the implicit training- previously, two types of trainings were mentioned: implicit and explicit- was an introduction to brain and the language of instruction was English and Persian. The lessons' contents were the same for both (experimental and control) conditions: mechanism of the brain, how it works and figures, but for the experimental group, the concept of the ability of the change in the functions of the brain through training and exercise was discussed as a part of explicit training so the only difference between experimental and control groups was the role of effort and changeability of the brain and the same methods were used for all students in both groups such as experiments, group discussions, partner work, and individual work. Feedback Comparison Table 3.1 shows the topics and examples in this regard. The instructor's feedback was different for each group, with the training condition's feedback focusing on promoting growth mindsets focusing on the listening skill while the control condition's feedback was more general.

The following detailed lesson plan was carried out for the experimental group:

Lesson plan for Experimental Group:

1) Introduction to Brain Function and Learning

- Brainstorming activity on "How does the brain learn English, especially listening?"
- Using brain diagrams to connect neurological processes to listening comprehension.
- Reading and discussion of a short bilingual article on brain mechanisms and learning

2) Collaborative Meaning-Making activities

- letting students express their ideas
- comparing their answers to the classmates and providing justification for their selection under the teacher's guidance, the entire class discussed the text's main ideas and how they applied to the students' everyday listening skill
- writing the main points on the board by the instructor

3) Classroom Norm Setting

Three classroom principles were introduced and reinforced throughout the training:

- listening ability improves through effort and practice.
- mistakes are valuable learning opportunities
- asking questions is a sign of engagement and growth

The instructor explained the principles and pinned them on the whiteboard

4) Listening Tasks and Feedback

- Students completed listening tasks in pairs or groups.

- Feedback for the experimental group reinforced growth listening mindset principles (e.g., "You're developing stronger listening strategies!").
- The control group received general performance feedback (e.g., "You answered three out of five questions correctly.").

Growth Mindset Feedback

The growth mindset feedback provided in the experimental condition followed clear guidelines inspired by works such as Dweck's theory and later adaptations by Rissanen et al. (2021), Zeeb (2020), and Sahagun (2021). These principles included:

(1) listening ability is accessible to anyone, everybody can learn it via practice, no exception.

(2) errors in listening practice are useful.

(3) inquiries about the listening processes are crucial.

These principles have been described and they are also consistent with the ideas of a growth mindset pedagogy by Rissanen et al. (2021), Zeeb (2020) and Sahagun (2021) of course with the addition of the listening skill all of which were widespread in different works of Dwack.

In addition to these three primary tenets, the instructor's feedback was directed by the "growth mindset feedback. This resource includes a comprehensive list of sample sentences that support growth mindsets and can be used in a variety of teaching contexts. The instructor read the list before beginning a new lesson in the training stage, which helped him internalize the type of feedback he wanted to provide. Some are as follows:

1) addressing fixed ideas about listening ability
2) modelling the importance of effort in listening
3) using questions that prompt thinking and learning the listening skill
4) praising and reinforce students for their hard work in listening practice
5) helping the students with their learning strategies and approaches about listening
6) providing the learners with perspectives on the growth mindset concerning listening skill
7) reminding the student of the difficulties at the beginning of dealing with a listening task, pointing out how much progress the student has made, etc.

Explicit Training

Brainstorming on the brain and learning with the feedback about listening were the major topics of the sessions. The students then worked on a neuroscientific essay that made a comparison between the human brain and a muscle that develops with practice in listening. Titled "The Trainable Brain," the text was adapted and translated into Persian from paper "You Can Grow Your Intelligence".

In Classes, both English and Persian as their mother tongue, were used. After that, the class as a whole examined the article's main points and came up with personal instances of how to learn from failure, struggle, and effort. Three classroom norms were introduced by the instructor: (1) listening skill is accessible to all, (2) errors in listening are valuable, and (3) questions are crucial, while control group went through without input on change and failure and struggle, practice, error tolerance.

While the students worked in groups, the instructor observed how they interacted and took notes; in the end, the instructor gave feedback to the entire class and described good and improvable group behavior. The training condition differed from the control condition in that there was a specific focus on mindset-friendly behavior throughout the group work, while the control condition had no such behavioral focus. he reminded the students of the classroom norms and described valuable behavior like respecting and listening to each other, asking questions, engaging in meaningful discussions, and learning from mistakes.

The other stage began with a reflection on the previous group work, during which the instructor asked the students about their experiences with the classroom norms. For instance, one student mentioned that her group had made a mistake when setting up the experiment, but that the confusion that followed helped them figure out the right solution. Following the students' reflection, the teacher gave detailed feedback about the mindset-related behavior she had seen in the groups. He stated, for instance, that he had appreciated how a group of students had developed clear questions and collaborated to come up with thoughtful responses, but that he had occasionally objected to the more conservative students who preferred not to participate. The instructor used student quotes and sample scenarios to highlight their findings. Afterwards, the students thought on the intentions they had set in the first training session. Lastly, each student composed an anonymous letter to a hypothetical student who was having difficulty with listening. They did their best to use English but if it was hard, they could use Persian. The assignment was to encourage the student by stating that everyone can excel in listening skill and to offer guidance for further education. As mentioned before, both explicit and implicit training were carried out each session.

Students in the training condition then got the first portion of the explicit listening mindset training while those in the control condition proceeded to the cooperative learning phase.

The group work's objectives and content were the same in both groups but in the training condition, the instructor exclusively addressed input on growth listening mindset. The second portion of the explicit mindset training was given to the training condition in the following lesson. This scenario lasted for 16 sessions, four months.

These general activities of sessions were carried out:

1) Brainstorming about the brain and learning and listening
2) Teamwork and group discussion about the brain and learning and listening
3) introduction of the classroom norm about listening
4) Group discussion about an example case in listening
5) Writing good intentions for future listening lessons
6) Reflection on the group work about listening
7) Reflection on the good intentions on listening
8) Pen pal task on listening

For control group, the instructor gave neutral or performance-based feedback that focused on the correctness of answers or task outcomes, avoided comments about effort, improvement, or ability being changeable, reflected typical classroom feedback that didn't promote a growth listening mindset. The followings are examples of types of feedback that the instructor was providing the control group with:

Examples of Feedback for the Control Group:

1. **Corrective feedback only**:
    - "This answer is incorrect. The correct answer is..."
    - "You missed part of the instruction."
2. **Performance-based feedback**:
    - "You got 6 out of 10 correct."
    - "You followed the instructions well."
3. **Descriptive feedback** (without motivation or mindset cues):
    - "You completed the task on time."
    - "The summary includes the main ideas but lacks details."

What to Avoid for the Control Group:

- Phrases like: *"You can get better with practice," "Mistakes help you learn," "You worked really hard,"* etc. (These reflect growth mindset messaging.)
- Encouragement based on effort or potential.

This way, both groups received feedback, but only the experimental group got the mindset-based listening feedback.

Table 1. Feedback Comparison Table for Experimental and control groups

Task Type	Experimental Group (Growth Mindset)	Control Group (Neutral/Performance-Based)
Comprehension question error	"It's okay to get this wrong—the important thing is to learn from it. Try listening again carefully."	"This answer is incorrect. The correct answer is."
Low quiz score	"This is just a starting point—you can improve with more practice and strategies."	"You got 4 out of 10 correct."
Good performance	"You must have used effective strategies here—your effort is paying off!"	"You got 9 out of 10 correct."
Incomplete task	"You're still learning how to manage the task—keep working on it, and you'll get there."	"You didn't complete all parts of the task."
Improved performance	"This shows progress! Your persistence is helping you improve."	"Your score increased from last time."
Metacognitive comment	"Noticing what confuses you is a great step toward becoming a better listener."	"You said this part was difficult."
Vocabulary mistake	"Mistakes like this are normal when learning new words. Keep trying different strategies to remember them."	"This word is used incorrectly here."
Strategy use (e.g., note-taking)	"Trying new strategies like note-taking is a smart way to grow your skills."	"You used notes during the task."

Instructional Framework

1. Implicit Training Elements

Instructor Feedback

Instructor feedback played a crucial role in fostering a growth mindset toward listening skill development. In the experimental group, instructors consistently provided feedback that emphasized effort, progress, and the strategic use of listening skill. Rather than focusing on static performance outcomes, feedback highlighted improvement and perseverance with comments such as, "You're developing stronger listening strategies!" In contrast, the control group received neutral, performance-based feedback that merely reported scores, for example, "You got 3 out of 5 correct," without reference to personal growth or strategy use.

Feedback Techniques

The feedback techniques were grounded in mindset research and adapted specifically for listening instruction. These techniques aimed to challenge fixed beliefs about listening ability, encourage perseverance through difficult tasks, reinforce the use of metacognitive strategies, and praise effort and risk-taking.

Classroom Norms and Environment

The classroom environment was structured to support key growth listening mindset principles, promoting the understanding that listening ability is not innate but can be developed, that mistakes are valuable learning opportunities, and that engagement through questioning and persistence is a sign of growth. To ensure comprehension, instruction was delivered bilingually, in both English and Persian.

Instructional Activities

Both the experimental and control groups engaged in activities such as group discussions, peer collaboration, and individual reflection; however, only the experimental group received consistent mindset-oriented guidance throughout these tasks.

2. Explicit Training Elements

Understanding the Brain and Learning

Students were explicitly taught about the brain's capacity for learning and change, focusing on the concept of brain plasticity. Instruction emphasized the metaphor of the brain as a trainable muscle, highlighting how listening skill can be developed through practice and effort. Additionally, students explored the differences between fixed and growth mindsets, particularly in the context of language learning.

Learning Activities

Several activities supported these lessons, including brainstorming sessions on how listening skill develop, reading bilingual materials that explained how the brain processes language, and engaging in class discussions that compared fixed and growth beliefs about language learning. These activities aimed to deepen students' understanding of the learning process and encourage a growth-oriented perspective toward listening challenges.

Reflective and Mindful Activities

Reading and Discussion

To deepen students' understanding of growth listening mindset principles, they engaged with short texts focused on effort, failure, and success in learning. These readings provided a basis for reflection on their own past experiences with listening challenges and strategy use. Collaborative meaning-making was encouraged during and after these discussions, fostering a shared exploration of the material.

Behavior Modeling and Positive Reinforcement

The instructor actively observed student behaviors during group tasks, paying particular attention to persistence, respectful listening, and the practice of asking clarifying questions. Such behaviors were regularly acknowledged and praised, with feedback designed specifically to reinforce growth-supportive actions and attitudes.

Reinforcement and Review Sessions

Each instructional session introduced a new growth mindset concept while revisiting previously taught ideas. This cumulative and continuous approach ensured repeated exposure to key principles, helping students to integrate these ideas effectively into their learning behaviors over time.

Growth listening mindset Intervention Program (16 Sessions)

Experimental Group: Growth Mindset-Based Pedagogy

1: Introduction to Listening & Growth Mindset: Overview of course goals, introduction to fixed vs. growth mindset in language learning.

2: Implicit Growth Mindset Exposure: Listening tasks with embedded growth-oriented messages (e.g., success stories, challenges overcome).

3: Feedback Session 1: Constructive feedback emphasizing effort, strategy, and progress.

4: Listening Strategy Training: Metacognitive strategies tied to growth (e.g., predicting, note-taking).

5: Scientific Article Review 1: Short article/video on neuroplasticity + group discussion.

6: Mindset Reflection Task: Writing task on learners' beliefs about their listening ability.

7: Explicit Growth Mindset Instruction: Teacher-led session on how the brain changes with effort and learning.

8: Feedback Session 2: Individualized growth-oriented feedback.

9: Group Discussion 1: Sharing listening challenges and reframing them with a growth mindset.

10: Scientific Article Review 2: Focus on the power of mistakes and learning from failure.

11: Listening Practice with Journaling: Reflective journaling after listening tasks.

12: Feedback Session 3: Emphasis on improvement and effective strategies.

13: Group Discussion 2: Peer encouragement and mindset-themed discussion (e.g., "When did you persist?").

14: Mindset & Goal Setting: Personal listening goals + mindset strategies to reach them.

15: Review & Self-Assessment: Students assess their growth and mindset change.

16: Final Reflection + Listening Practice: Final listening task + written and oral reflection on learning journey.

Control Group: Traditional Listening Instruction

1: Course overview and basic listening orientation.

2: Listening for gist and detail (IELTS-style practice).

3: Vocabulary development from audio materials.

4: Listening comprehension exercises.

5: Note-taking practice with academic listening.

6: Matching tasks and sentence completion activities.

7: Listening for speaker's opinion and tone.

8: Multiple-choice and gap-fill practice.

9: Using context clues in listening.

10: Focused listening: identifying key information.

11: Listening to short lectures and summarizing.

12: Review and revision of strategies.

13: Group listening practice with follow-up Q&A.

14: Listening mini-tests (mock IELTS tasks).

15: Error correction and peer feedback on practice tests.

16: Final listening mock test and feedback session.

Overall, the structured intervention went beyond traditional language instruction by targeting both cognitive and affective dimensions of learning:

1. **Increased Motivation and Persistence**

Growth listening mindset principles encourage learners to embrace challenges and persist through difficult listening tasks. And students are more likely to stay engaged, rather than give up when they don't understand the audio right away.

2. **Improved Metacognitive Awareness**

The intervention teaches students how to think about their own listening process—planning, monitoring, and evaluating their strategies. So, this leads to smarter use of strategies like prediction, note-taking, and inferring from context—skills directly tested in IELTS.

3. **Reduced Listening Anxiety**

Knowing that mistakes are part of learning lowers anxiety, which often interferes with listening comprehension. Learners become more confident and focused during the test.

4. **Neuroscientific Awareness (Brain Plasticity)**

Teaching about how the brain grows with effort helps learners believe in their potential, which boosts effort and resilience. Therefore, this mental shift translates into better performance, as learners try harder and apply what they've learned.

5. **Active Engagement Through Discussion & Reflection**

Group discussions and journaling foster deep learning, self-assessment, and goal-setting—practices that make students more independent and strategic learners.

6. **Targeted Feedback**

Growth-oriented feedback focuses on what can be improved and how, rather than labeling students as "good" or "bad." Consequently, this approach led to continuous improvement, which was key in Listening. In short, the 16-session growth mindset intervention was designed to enhance both the cognitive and affective aspects of listening among EFL learners. Unlike traditional instruction, this program emphasized the belief that listening ability can be developed through effort, strategy use, and persistence. By integrating mindset-focused feedback, reflection tasks, scientific discussions on brain plasticity, and group activities, the experimental group was encouraged to actively engage with listening tasks and adopt more effective learning behaviors. As a result, learners were more motivated, less anxious, and better equipped with metacognitive strategies such as prediction, monitoring, and self-evaluation—skills that directly contribute to improved performance in the IELTS listening test. This comprehensive approach likely explains the higher posttest scores observed in the experimental group compared to the control group.

Posttest

For the posttest, the listening section of the IELTS 8 test from Cambridge series books was administered already administered to the real candidates whose reliability utilizing Cronbach's Alpha was 0.91.

Findings and Results

Finally, the main objective of this research was to evaluate the effectiveness of teaching the principles of growth listening mindset on listening skill, and for this purpose, multivariate analysis of covariance (MANCOVA) was used.

The research question: Does teaching the principles of growth listening mindset have an effect on listening skill?

In order to answer the above question, 144 language learners who volunteered to participate in the research were placed in two experimental and control groups. 72 of them were in the experimental group and 72 were in the control group. Before answering the research question, the demographic characteristics of the participants were investigated and reported in Table 2.

Table 2. Demographic characteristics of participants in the experimental study

	Experimental		Control	
	N	%	N	%
Females	30	41.7	36	50
Males	42	58.3	36	50
Age	Mean	SD	Mean	SD
	19.23	4.26	19.55	3.66
Education	N	%	N	%
under diploma	14	19.4	14	19.4
Diploma	24	33.3	18	25
Above diploma	34	47.3	40	55.6

As Table 2 shows, there were 72 participants in each experimental and control group, of which 30 (41.7%) were women and 42 (58.3%) were men. In the control group, 36 people (50%) were women and 36 people (50%) were men. According to Table, the mean and standard deviation of the age of the participants in the experimental group were 19.23 and 4.26, and in the control group, 19.55 and 3.66 years. According to the results of Table 23-4, in the experimental group, the education level of 14 people (19.4 percent) is less than a diploma, 24 people (33.3 percent) have a diploma, and 34 people (47.3 percent) have more than a diploma. In the control group, 14 people (19.4%) had less than a diploma, 18 people (25%) had a diploma, and 40 people (55.6%) had more than a diploma. Table 3 shows the mean, standard deviation and Shapiro-Wilk index of listening skill in the participants of the research groups based on gender in the pre-test and post-test phases.

Table 3. Mean, standard deviation and Shapiro-Wilk index of listening skill

Group	Sex	Shapiro–Wilk Pre-test (*p*)	Shapiro–Wilk Post-test (*p*)	Pre-test *M* (SD)	Post-test *M* (SD)
Experimental	Female	.948 (.091)	.946 (.071)	19.31 (3.80)	23.11 (4.05)
Experimental	Male	.953 (.130)	.951 (.112)	17.39 (4.69)	20.81 (4.63)
Control	Female	.946 (.136)	.943 (.112)	19.23 (3.50)	18.33 (3.40)
Control	Male	.948 (.056)	.967 (.263)	18.40 (3.76)	19.35 (4.55)

Table 3 shows that the Shapiro-Wilk index related to listening skill in both experimental and control groups and in both sexes and in both pre-test and post-test stages is insignificant. This finding means that the distribution of data related to listening skill is normal in both groups, in both sexes, and in both performance stages. To test the assumption of independence of pre-test variables from group membership, two -way ANCOVA was used. The results showed that the F value is insignificant at the 0.05 level (p=0.512, F=0.43 (140 and 1)). This shows that before the implementation of independent variables, there is no significant difference between the experimental and control groups in terms of listening skill, and the assumption of independence of pre-test variables from group membership is performed in the data. In this research, the two basic assumptions of the homogeneity of the error variance of the listening skill in the post-test and the homogeneity of the slope of the regression line between the pre-tests and the post-tests were also examined, the results of which are presented in Table 4.

Table 4. Evaluation of the establishment/non-establishment of the assumptions of homogeneity of variance and slope of the regression line

	Homogeneity of variances		The slope of the regression line	
Variables	F	p	F	P
Listening skill	.87	.457	1.09	.162

According to the results of the above table, the using Levene's test showed that the error variances of listening skill in two groups are not significant at the 0.05 level, this shows that the assumption of equality of error variances for listening skill is valid. Also, Table 4 shows that the difference in the slope of the listening skill line in the two groups is not significant at the 0.05 level. Therefore, it can be said that in this study, the assumption of homogeneity of the slope of the regression line for the dependent variable was established.

After making sure that the assumptions were established among the data, in order to answer the research question, two -way ANCOVA was used. Table 5 shows the main effects and the interaction effect of gender × teaching principles of growth listening mindsets on listening skill.

Table 5. Main effects and interaction effect (gender × growth listening mindset principles training) on listening skill

Variable	*MS*	*df*	*F*	*p*	η^2	Observed power
Group	396.53	1	28.43	.001	.170	1.00
Sex	0.001	1	0.001	.993	.001	.05
Group × Sex	68.90	1	4.94	.028	.034	.60

Note 1: MS (mean square), η^2 (root mean square)

Note 2: The mean squared error was 13.95 and the degree of freedom of error was 139.

Table 5 shows that the main effect of group (p=0.001, F=28.43) is significant. The use of Bonferroni test showed that the participants in the experimental group obtained higher mean scores compared to the people in the control group ($\Delta\bar{x} = 0.62$, SE = 3.35). Therefore, in response to the question of the research, it was concluded that teaching the principles of growth listening mindset increases listening skill in language learners. But the interesting finding in this part of the research was that although according to the results of table 28, the main effect of gender (p=0.993, F=0.001) was not significant - based on this finding, it can be said between the two groups, there is no significant difference between males and females in terms of listening skill -

despite this fact, interaction effect of gender × teaching principles of growth listening mindsets on listening skill was statistic ally significant (p=0.028, F=4.94). This finding shows that the effect of teaching the principles of growth listening mindset on listening skill is different between males and females. According to the means obtained in table 5, teaching the principles of growth listening mindset, although the listening skill in both groups of women and men have increased, despite this fact, the independent variable of listening skill has increased in women more than men.

Discussion and Conclusion

The present study investigated the impact of growth mindset pedagogy on listening comprehension among Iranian EFL learners. Using a quasi-experimental design, the study compared an experimental group receiving instruction based on growth listening mindset principles with a control group taught through traditional methods. The results indicated that learners in the experimental group significantly outperformed those in the control group on posttest measures of listening skill, demonstrating both higher mean scores and more substantial gains from pretest to posttest. Moreover, the findings revealed that the effect of growth mindset pedagogy was consistent across genders, though women appeared to benefit slightly more than men, as evidenced by the interaction effect between gender and instruction type. Collectively, these results provide robust empirical evidence that growth mindset pedagogy can enhance learners' listening performance in an EFL context.

These findings align with previous research that has highlighted the powerful role of mindset beliefs in shaping academic performance and persistence. As Dweck's body of work has consistently emphasized, students who adopt a growth mindset—that is, the belief that abilities can be developed through effort and strategy—tend to show greater resilience and achievement (4, 5). In the context of language learning, learners who believe that their listening ability can improve are more likely to engage actively in practice, view challenges as opportunities, and persist in the face of setbacks (12, 13). The results of this study corroborate these theoretical propositions by demonstrating measurable improvements in listening performance following a structured growth mindset intervention.

The strong effect of growth mindset pedagogy on listening skill observed in this study also supports recent empirical research in SLA. For instance, Yao and Zhu demonstrated that growth language mindsets interact with goal orientations and feedback-seeking behavior to enhance resilience and adaptive learning strategies among Chinese EFL learners (30). Similarly, Zhao et al. found that growth mindsets significantly enhanced high school students' subjective well-being and academic motivation, which in turn fostered perseverance and achievement (31). By improving learners' willingness to engage with difficult tasks, growth mindset beliefs likely played a comparable role in the present study, where students exposed to mindset-oriented feedback and activities displayed higher gains in listening comprehension.

The gender-related findings of this study warrant special attention. While the overall effect of growth mindset pedagogy was positive for both men and women, the results suggested that women benefitted more strongly. This observation may be linked to broader discussions in the literature on how gendered expectations and perceptions of brilliance influence learners' self-beliefs (36). Female learners in contexts where language learning is highly valued may respond more positively to pedagogical approaches that explicitly affirm the malleability of ability and the value of effort. At the same time, this finding resonates with Sahagun et al., who demonstrated that growth mindset interventions are especially effective in mitigating stereotype threat and promoting achievement among groups traditionally subjected to lower expectations (24). Thus, gender differences in the present study may reflect differential sensitivity to the motivational messages embedded in growth mindset pedagogy.

The findings are also consistent with prior studies that have emphasized the importance of listening as both a core language skill and a vehicle for overall proficiency development. Zanjani and Izadpanah highlighted that listening provides crucial input

for language learning and directly supports the development of vocabulary, syntax, and pronunciation (22). However, as BaLatur noted, listening has often been under-researched and undervalued compared to other skills (21). By demonstrating that growth mindset pedagogy can significantly enhance listening outcomes, the present study not only affirms the importance of listening but also introduces a pedagogical model for addressing its challenges.

Importantly, the results align with international evidence that growth mindset pedagogy fosters positive learning environments and improved performance across diverse cultural contexts. Rissanen et al., in their study of Finnish elementary teachers, showed that integrating growth mindset principles into teaching enhanced learners' motivation and resilience (28). Similarly, Laurell et al. found that socio-cultural approaches to mindset pedagogy promoted collaborative learning cultures and deeper engagement (27). These findings resonate strongly with the outcomes of the present study, suggesting that growth mindset pedagogy can be effectively adapted across contexts to improve skill acquisition.

From a methodological perspective, the significant improvements observed in the experimental group further underscore the importance of targeted mindset training rather than incidental exposure. Zeeb's lesson-integrated growth mindset intervention demonstrated that embedding mindset principles within subject-specific instruction led to notable academic improvements (3). The current study followed a similar approach, incorporating explicit and implicit mindset messages into listening activities, which appears to have contributed to the observed gains. This supports the argument that mindset pedagogy is most effective when it is systematically integrated into classroom practices rather than delivered as isolated workshops (24).

The role of psychological resources also deserves mention. Liu's recent study emphasized that growth mindset and emotional intelligence jointly support academic buoyancy and resilience (32). In the present study, the mindset-based intervention may have indirectly fostered not only listening strategies but also emotional resilience, reducing learners' anxiety and increasing their confidence in tackling listening tasks. This interpretation is consistent with findings that growth mindset interventions reduce anxiety by reframing errors as learning opportunities and encouraging persistence (7, 8).

Furthermore, the observed gains in listening performance echo Abdellatif et al.'s findings that AI-based listening assessments incorporating growth mindset principles improved learners' resilience, self-competence, and listening outcomes (23). Together, these studies reinforce the conclusion that growth mindset pedagogy is particularly beneficial for receptive language skills, which often involve high cognitive load and are prone to learner anxiety.

At the same time, it is important to acknowledge that the effectiveness of mindset pedagogy is not universal. Xie and Zhang, for instance, highlight that educational reforms and interventions interact with institutional, cultural, and data-driven factors, which can sometimes constrain the impact of pedagogical innovations (29). Likewise, Cai et al. identified barriers to implementing growth mindset pedagogy, including teacher beliefs, institutional constraints, and students' prior experiences (18). In the Iranian EFL context, where traditional approaches still dominate, these barriers may pose challenges to widespread adoption. Nevertheless, the results of this study suggest that with careful design and contextual adaptation, mindset pedagogy can overcome such obstacles and yield substantial benefits.

Finally, the findings contribute to the broader theoretical debate on the scope and limits of mindset interventions. While some critics caution against "mindset hype," Dweck herself has clarified that a growth mindset is not simply about praising effort but about combining effort with effective strategies, feedback, and support (5, 10). The present study exemplifies this nuanced approach by embedding mindset messages within concrete listening strategies and classroom practices, thereby operationalizing the theory in meaningful ways.

Despite its contributions, the study has several limitations that must be acknowledged. First, the sample was drawn from a specific geographical and institutional context in Iran, which may limit the generalizability of the findings to other populations. Second, while the quasi-experimental design provided strong internal validity, the absence of random assignment introduces

potential selection biases. Third, the study measured immediate post-intervention outcomes but did not assess long-term retention or transferability of listening gains to authentic communicative contexts. Fourth, the reliance on quantitative data limited insights into learners' subjective experiences with mindset pedagogy, which could have enriched interpretation. Finally, although gender differences emerged as an interesting finding, the study was not specifically designed to explore gender as a moderating variable, and further research is needed to clarify these effects.

Future research should expand on this study by examining the long-term effects of growth mindset pedagogy on listening and other language skills through longitudinal designs. Mixed-method approaches that incorporate interviews, reflective journals, and classroom observations would provide deeper insights into how learners internalize and apply mindset principles. Comparative studies across different cultural and institutional contexts could clarify the extent to which cultural norms mediate the effectiveness of mindset pedagogy. Moreover, future work should explore the role of mediating variables such as grit, emotional intelligence, and school climate, building on recent findings (25, 32, 33). Finally, research should investigate how teacher training programs can effectively prepare instructors to implement growth mindset pedagogy, addressing barriers such as entrenched beliefs and institutional constraints.

For practitioners, the findings underscore the value of integrating growth mindset principles into listening instruction. Teachers should create classroom environments that normalize mistakes, emphasize effort and strategy use, and provide constructive feedback focused on progress rather than innate ability. Listening tasks should be paired with explicit messages about brain plasticity, persistence, and resilience, helping learners reframe difficulties as opportunities for growth. Curriculum designers should embed mindset pedagogy into instructional materials and assessments, while teacher training programs should prepare educators to model and reinforce growth-oriented behaviors. At the institutional level, policymakers should promote educational cultures that value adaptability and continuous improvement, thereby enabling the wider adoption of mindset-based approaches in EFL instruction.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adhered in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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