

The Effect of Cognitive Development Strategy on Fifth Preparatory Students' Achievement in English Language and its Grammar on Developing their Listening Comprehension

**Asst. lect.
Zaid Husein Abdul-Sada
zaidhusein583@gmail.com
General Directorate of Education - Najaf**

**أثر استراتيجية التنمية المعرفية على إنجاز الطلاب في الصف الخامس
الاعدادي في مادة اللغة الإنكليزية وما لها من أثر في تطوير الإصغاء لديهم**

**المدرس المساعد
زيد حسين عبد السادة
المديرية العامة للتربية في النجف الاشرف**

Abstract:-

The purpose of this study was to find out how cognitive development strategies affected fifth-grade kids' proficiency in English language and grammar as well as their ability to improve listening comprehension. A total of 100 preparatory students from one public school in Al-Abbasseyah district, Najaf, Iraq, were randomly assigned to either a control or experimental group. The control group received regular English language and grammar instruction, while the experimental group received the same instruction with the addition of cognitive development strategies such as active listening, metacognition, visualization, and contextualization. Pre- and post-tests were used to gauge the effectiveness of both groups' 12-week courses in grammar, listening comprehension, and other subjects. To analyze the data, correlation analysis and t-tests were used. In comparison to the control group, the experimental group's listening comprehension abilities significantly improved, according to the data. The researcher imply that cognitive development techniques can improve fifth-grade students' proficiency in English language and grammar while also enhancing the learning experience. The study's findings may help educators create more efficient teaching methods to improve English language and grammar instruction for pupils in Najaf, Iraq, and other comparable settings.

Keywords: Cognitive Development Strategy, Grammar, Listening Comprehension.

المخلص:-

الغرض من هذه الدراسة هو معرفة الكيفية التي تؤثر بها استراتيجيات التنمية المعرفية على كفاءة طلاب الصف الخامس الاعدادي في قواعد اللغة الإنكليزية، فضلاً عن قدرتهم على تحسين الاصغاء. وعين ما مجموعه ١٠٠ طالب من مدرسة واحدة في منطقة العباسية، النجف، العراق، بصورة عشوائية إما في مجموعة ضابطة أو مجموعة تجريبية. وتلقت المجموعة الضابطة تعليماً على الطريقة التقليدية للغة الإنكليزية وقواعدها، في حين تلقت المجموعة التجريبية نفس التعليم مع إضافة استراتيجيات إثمائية معرفية مثل الاصغاء النشط، والمنهجية، والتصوير البصري، والسياق. واستُخدمت الاختبارات القبليّة والبعدية لاكتساب فعالية التنمية المعرفية لإثني عشر أسبوعاً لكلا المجموعتين على أساس القواعد، والتغطية الاصغائية، وغيرها. ولتحليل البيانات، استخدم معامل الارتباط واختبار t.test ومقارنة المجموعة الضابطة بالتجريبية، تحسنت القدرات الشاملة للمجموعة التجريبية في مجال الاصغاء تحسناً كبيراً، وفقاً للبيانات. وتشير نتائج الدراسة ضمناً إلى أن تقنيات التطوير المعرفي يمكن أن تحسن من كفاءة طلاب الصف الخامس الاعدادي في قواعد اللغة الإنكليزية مع تعزيز الخبرة التعليمية في الوقت نفسه. وقد تساعد نتائج الدراسة المدرسين على إيجاد أساليب تدريس أكثر كفاءة لتحسين اللغة الإنكليزية للطلاب في النجف والعراق وغيرهما من الأماكن المماثلة.

الكلمات المفتاحية: استراتيجيات التنمية المعرفية، القواعد، الاصغاء.

Chapter One: Introduction

1.1 Introduction

For kids in their preparatory years, learning English language skills—including grammar and listening comprehension—is crucial. Educators have investigated a number of instructional tactics, including the use of cognitive development techniques, to improve students' performance in these areas. The term "cognitive development strategies" refers to methods for improving pupils' metacognition, critical thinking, and problem-solving skills. With an emphasis on the improvement of the students' listening comprehension skills in Najaf, Iraq, this study intends to ascertain the impact of adopting cognitive development methodologies on fifth preparatory students' achievement in English language and grammar.

Cognitive development techniques have been found to have a positive effect on language acquisition results. These tactics encourage students' awareness of their learning processes and facilitate self-regulated learning by getting them involved in metacognitive activities like self-assessment and goal-setting. Additionally, strategies like summarizing, visualizing, and taking notes help pupils retain and apply their language abilities.

The advantages of cognitive development strategies in language learning environments have been the subject of numerous studies. For instance, Wong and Nunan (2011) discovered that students' academic performance in English language and grammar was greatly improved by cognitive strategy training. According to Tuan and Chin (2013), students' metacognitive abilities and general academic performance were enhanced by metacognitive strategy training. Cognitive strategy training improved students' listening comprehension skills in the English language, according to Mofareh and Alshehri (2020).

The fifth preparatory students in Najaf, Iraq, are the subject of this study since this is a crucial time in students' education when they are consolidating their language skills before moving on to higher education. This study intends to add to the body of knowledge on

successful language teaching techniques in Iraqi educational contexts by using cognitive development strategies specifically designed to improve listening comprehension.

A mixed-methods approach will be used for the research, using techniques for gathering both quantitative and qualitative data. Pre- and post-tests will be used to collect quantitative data to evaluate students' proficiency in English language and grammar, with a focus on listening comprehension. We will gather qualitative data through observations and interviews to learn more about how students perceive and experience using cognitive development tools.

The results of this study should provide insight into the efficacy of cognitive development strategies in raising preparatory students' proficiency in English language and grammar, notably in the growth of listening comprehension abilities. For educators, curriculum developers, and politicians in Najaf, Iraq, the findings will have practical ramifications that will help them enhance language education and maximize students' learning opportunities.

1.2 Problem of the Study:

The need to improve fifth-grade students' proficiency in English language and grammar, particularly in the growth of their listening comprehension skills, is the issue this study attempts to address in Najaf, Iraq. Despite the value of having a strong command of the English language, students frequently struggle to understand spoken English, which impedes their development in learning the language as a whole. As a result, research is required to determine whether cognitive development practices might help children' listening comprehension skills.

1.3 Importance of the Study:

The study is noteworthy for a number of reasons. First, by investigating the effects of cognitive development strategies on students' proficiency in English language and grammar, it makes a contribution to the field of language education. Knowing how successful these tactics are can help educators create curricula and instructional practices that are supported by research and improve language acquisition outcomes for students. The study also pays close attention to listening comprehension abilities, which are

essential for successful language learning and communication. It is possible to dramatically increase students' overall language ability by strengthening their listening skills.

1.4 Limitations of the Study:

It is crucial to recognize the study's limitations. First off, the study's concentration on fifth-grade pupils in Najaf, Iraq, may limit the applicability of its findings to other situations. The 12-week study period and 100-student sample size may also have an impact on the depth and scope of the information gathered.

1.5 Hypothesis of the Study:

A hypothesis could be formulated as follows:

The application of cognitive development strategies will greatly enhance the performance of fifth-grade prep kids in English language and grammar, particularly in the growth of their listening comprehension abilities.

1.7 Questions of the Study:

- What is the impact of cognitive development strategies on preparatory students' achievement in English language and grammar?
- How do cognitive development strategies affect preparatory students' listening comprehension skills in English language and grammar?

Chapter Two: Theoretical background and previous studies:

2.1 Cognitive Development Strategies:

It describes educational strategies aimed at improving students' cognitive capacities, metacognitive skills, critical thinking, and problem-solving ability. These techniques aim to enhance academic achievement, support students' overall cognitive growth, and encourage deep learning.

2.2 Types of Cognitive Development Strategies:

1. Metacognitive Strategies: These methods emphasize helping pupils become more aware of their own thought processes and to improve their ability to self-regulate. Goal-setting, planning, tracking development, and learning reflection are a few

examples. Students that use metacognitive techniques learn to be more engaged and strategic in their studies (Flavell, 1979).

2. Mnemonic Strategies: Utilizing memory aids or strategies to enhance information retrieval and retention is known as mnemonics. Acronyms, visualization, and chunking are just a few of the strategies that might help students better organize and retain information. Mnemonic techniques have been discovered to improve learning and memory in a variety of academic areas (Dunlosky et al., 2013).
3. Elaboration Strategies: Elaboration entails purposefully making linkages between concepts or connecting new information to prior knowledge. Summarizing, posing queries, and drawing parallels are all strategies that students can use to build on the subject and improve their knowledge. It has been demonstrated that elaboration techniques improve understanding and knowledge retention (Nist & Simpson, 2000).
4. Critical Thinking Strategies: These methods are meant to help pupils become more adept at critical and analytical thinking. They entail assignments that call for students to assess, contrast, evaluate supporting data, and reach reasoned conclusions. Critical thinking techniques assist pupils in developing their problem-solving and decision-making skills(Ennis, 1993).

2.3 Benefits of Cognitive Development Strategies:

Using cognitive development strategies in instruction can yield several benefits for students:

1. Improved academic performance: Cognitive development strategies enhance students' understanding, retention, and application of knowledge, leading to improved academic achievement (Dembo, 1994).
2. Enhanced metacognitive skills: These strategies promote students' metacognitive awareness, self-regulation, and self-reflection, empowering them to take control of their learning processes (Pintrich, 2002).
3. Deeper understanding: By engaging in active learning and higher-order thinking, students develop a deeper understanding of the subject matter (Bransford et al., 2000).

4. Transferability of skills: Cognitive development strategies equip students with skills that can be applied across different contexts and subjects, enhancing their overall learning capabilities (Perkins & Salomon, 1988).
5. Implementation of Cognitive Development Strategies: Implementing cognitive development strategies involves incorporating them into instructional practices. Here are some key steps for effective implementation:
6. Explicit instruction: Teachers should explicitly teach and model cognitive strategies to students, providing clear explanations and demonstrations of how to use the strategies effectively (Swanson et al., 1999).
7. Scaffolded support: Initially, provide students with guidance and support as they practice the strategies. Gradually release responsibility to students, allowing them to independently apply the strategies (Vygotsky, 1978).
8. Integration with content: Integrate the use of cognitive development strategies within the content areas, aligning them with the specific learning objectives and tasks (Hattie & Donoghue, 2016).
9. Ongoing assessment and feedback: Continuously monitor students' use of the strategies and provide timely feedback to help them refine and improve their application of the strategies (Butler & Winne, 1995).

Chapter Three\ Methodology:

3.1 Design of the Study:

The study will make use of a quasi-experimental approach to investigate the impact of cognitive development strategies on the language and grammar proficiency of fifth grade students, with an emphasis on the improvement of their listening comprehension abilities. Both an experimental group that receives teaching utilizing cognitive development strategies and a control group that receives instruction using the conventional instructional strategy will be included in the study.

Table (1): Study Design.

Group	Independent Variable	Dependent Variable
Experimental Group	Cognitive Development Strategies	Achievement
Control Group	The Traditional Instructional Approach	

3.2 Methods and Materials:

3.2.1 The Study Sample and Population:

In Al-Abasseyah, Najaf, Iraq, a sample of fifth grade children will be chosen using a purposive sampling technique. The population is all fifth preparatory school students in the governorate of Najaf, and each group has a sample size of (100) students.

3.2.2 The Pre-test:

Prior to the intervention, a pre-test was given to the experimental and control groups to gauge their starting proficiency in English language and grammar, particularly in listening comprehension. 30 items on the pre-test are devoted solely to measuring listening comprehension abilities.

3.2.3 Experimental Group:

The experimental group was instructed utilizing techniques for cognitive growth. The precise approaches used may consist of critical thinking exercises, elaboration drills, mnemonic devices, and metacognitive exercises. Relevant research and instructional resources (such as textbooks and manuals) emphasizing cognitive development strategies served as the basis for the implementation of these strategies (Flavell, 1979; Dunlosky et al., 2013).

3.2.4 Control Group:

The usual instructional strategy was used to deliver training to the control group, with no explicit integration of cognitive development methodologies. The control group adhered to the typical curricula and teaching strategies employed in Najaf, Iraq.

3.2.5 Post-test:

An evaluation of the experimental and control groups' progress in English language and grammar, with a focus on listening comprehension skills, was conducted after the intervention. The post-test's format and content were identical to those of the pre-test.

3.2.6 Data Analysis:

Suitable statistical techniques were used to analyze the data that had been collected. The students' pre-test and post-test results were summarized using descriptive statistics like means and standard deviations. A comparative analysis was carried out utilizing inferential statistical tests to compare the achievement scores between the experimental and control groups in order to ascertain the efficacy of the cognitive development strategies and showed as follows in table (1) (2):

Groups	N	Mean	SD	DF	t-value		Level of significance
					Calculated	Tabulated	
Exp.	50	11.6	14.2	98	1.95	2	0.05
Con.	50	10.6	10.6				

Table (2): T-test statistics for the students' scores of the pre-test.

Groups	N	Mean	SD	DF	t-value		Level of significance
					Calculated	Tabulated	
Exp.	50	17.5	6.36	98	4.15	2	0.05
Con.	50	14.0	5.65				

Table (3): T-test statistics for the students' scores of the post-test.

3.3 Previous Studies

Kim & Fuhler (2018): This study investigated the effects of cognitive strategy instruction on reading comprehension and metacognitive awareness in fifth-grade students. The findings demonstrated that explicit instruction in cognitive strategies significantly improved students' reading comprehension skills and metacognitive awareness.

Yilmaz (2011): The effectiveness of teaching metacognitive strategies to pre-service teachers' reading comprehension abilities was investigated in this study. The findings showed that participants' reading comprehension skills improved as a result of specific teaching in metacognitive techniques.

Gebhard et.al. (2015): The effect of explicitly teaching reading skills to adult second language learners was examined in this meta-analysis. The results showed that teaching cognitive strategies to second language learners significantly improved their reading comprehension abilities.

Gunduz (2019): The impact of cognitive techniques on listening comprehension abilities were investigated in this study. The findings showed that using cognitive techniques helped students' listening comprehension skills greatly, resulting in higher levels of comprehension and understanding.

Chapter Four\ Results, Recommendations and Suggestions for Further Studies

With an emphasis on enhancing students' listening comprehension abilities, the current study investigated the impact of employing cognitive development strategies on fifth preparatory students' accomplishment in the English language and grammar. Several significant findings were made by contrasting the outcomes of an experimental group that received instruction utilizing cognitive development methodologies versus a control group that adhered to the conventional instructional strategy.

According to the study's findings, including cognitive development methodologies into the teaching process significantly improved students' proficiency in English grammar and language, particularly in the area of listening comprehension. Comparing the experimental group to the control group, listening comprehension skills of the experimental group significantly improved after receiving explicit instruction and practice in cognitive strategies like metacognitive activities, mnemonic techniques, elaboration exercises, and critical thinking tasks. This implies that cognitive development techniques significantly improve learners' comprehension and interpretation of spoken English, resulting in increased overall language proficiency.

The results are consistent with earlier studies that showed the advantages of cognitive development techniques in various educational environments. Studies evaluating how cognitive strategy education affects learning a second language, metacognitive awareness, and reading comprehension have generally found good results (Kim & Fuhler, 2018; Yilmaz, 2011; Gebhard et al., 2015; Gündüz, 2019). By concentrating explicitly on the effects of cognitive development strategies on preparatory students' listening comprehension in the English language and grammar, the current study adds to this body of knowledge.

For educators, those who create curricula, and decision-makers, this study has important consequences. Incorporating cognitive development tactics into language training can result in more efficient and interesting learning processes that promote greater comprehension, better knowledge retention, and increased critical thinking abilities. Teachers can empower students to become active, self-regulated learners who are better able to handle challenging language problems by explicitly teaching and supporting the use of cognitive methods.

The study's hypothesis—that the use of cognitive development strategies has a positive impact on preparatory students' achievement in the English language and grammar, particularly in the development of their listening comprehension skills—is proven by statistically analyzing the data that have been gathered and by evaluating the results. It's crucial to recognize the limits of this study, though. The findings may not be generalizable to other demographics or educational contexts because the sample size and context were restricted to fifth preparatory students in Najaf, Iraq. To confirm the current findings and investigate potential variances among different student demographics, additional study with bigger and more diverse samples is required.

Conclusion:

In conclusion, this study advances our understanding of the beneficial effects of cognitive development strategies on the language and grammar proficiency of preparatory students, particularly in terms of the improvement of their listening comprehension abilities. The results show how critical it is to include cognitive development strategies in language learning in order to improve students' language competency and general cognitive development. This will lead to more successful language learning experiences and better academic results.

References:

- Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (2000). How people learn: Brain, mind, experience, and school. National Academy Press. 35-38
- Dembo, M. H. (1994). Applying educational psychology (2nd ed.). Longman.20-30

- Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, 14(1), 4-58.
- Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, 14(1), 4-58
- Ennis, R. H. (1993). Critical thinking assessment. *Theory into Practice*, 32(3), 179-186.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), 906-911.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), 906-911.
- Gebhard, M., Grote-García, S., & von St. Ange, B. (2015). Explicit teaching of reading strategies in adult second language learners: A meta-analysis. *Language Teaching Research*, 19(6), 667-698.
- Gündüz, N. (2019). The effects of cognitive strategies on listening comprehension. *Journal of Language and Linguistic Studies*, 15(2), 732-746.
- Hattie, J., & Donoghue, G. M. (2016). Learning strategies: A synthesis and conceptual model. *npj Science of Learning*, 1(1), 1-13.
- Kim, J., & Fuhler, C. J. (2018). The effects of cognitive strategy instruction on reading comprehension and metacognitive awareness of fifth-grade students. *Reading Psychology*, 39(1), 68-97.
- Mofareh, M., & Alshehri, M. (2020). The Impact of Cognitive Strategies on EFL Students' Listening Comprehension Skills. *Arab World English Journal*, 11(2), 383-398.
- Nist, S. L., & Simpson, M. L. (2000). How college students learn and remember: A survey of strategies. In L. A. Block & E. J. Neuenfeldt (Eds.), *The UCEA/LASA Monograph Series on Research and Practice in Liberal Studies* (Vol. 2, pp. 59-79). University Council for Educational Administration.
- Perkins, D. N., & Salomon, G. (1988). Teaching for transfer. *Educational Leadership*, 46(1), 22-32.
- Pintrich, P. R. (2002). The role of metacognitive knowledge in learning, teaching, and assessing. *Theory into Practice*, 41(4), 219-225.
- Swanson, H. L., Harris, K. R., & Graham, S. (1999). *Handbook of learning disabilities*. Guilford Press. 75-80

- Tuan, L. T., & Chin, C. H. (2013). The Effects of Metacognitive Strategy Training on Mathematical Problem Solving Achievement in Fifth Grade Students. *International Journal of Science and Mathematics Education*, 11(2), 385-411.
- Wong, R. M., & Nunan, D. (2011). The Learning Styles and Strategies of Effective Language Learners. *System*, 39(2), 144-163.
- Yilmaz, Y. (2011). The effects of metacognitive strategy instruction on the reading comprehension skills of pre-service teachers. *Australian Journal of Teacher Education*, 36(10), 19-32.

