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A Comparative Analysis of the Impact of Two Pedagogical Approaches on the Production of Idiomatic Expressions among EFL Learners

Mehdi Mehranirad¹ 
 Reyhaneh Garazhian² 
 Reza Zabihi^{3*} 

¹Associate Professor in Applied Linguistics, Department of English, Faculty of Letters and Humanities, University of Neyshabur, Neyshabur, Iran

²M.A. in English Language Teaching, Department of English, Faculty of Letters and Humanities, University of Neyshabur, Neyshabur, Iran

^{3*}Associate Professor in Applied Linguistics, Department of English, Faculty of Letters and Humanities, University of Neyshabur, Neyshabur, Iran

ABSTRACT

The ongoing debate surrounding the effectiveness of instructional models, particularly within the context of English as a Foreign Language (EFL) education, underscores the need for empirical investigation. This study sought to address this discourse by examining the differential impact of two pedagogical approaches on the production of idiomatic expressions. Employing a quasi-experimental design, the research compared the performance outcomes of two groups of learners, one exposed to deductive instruction and the other to inductive instruction. The participants engaged in a comprehensive exploration of 64 English idiomatic expressions over the course of the study. Data collection included a pre-test, eight immediate post-tests, a delayed post-test, and an open-ended questionnaire. The 20-session experiment, integrated seamlessly into the regular classroom instruction, involved the alternation of deductive and inductive approaches in teaching eight idiomatic expressions per session. Findings revealed significant improvements in both groups' scores, yet a noteworthy distinction emerged in favor of the inductive instruction. This outcome implies that an inductive pedagogical approach may exert a significant influence on the production of idiomatic expressions among EFL learners. The study contributes insights into the ongoing pedagogical discourse and underscores the potential benefits of adopting inductive strategies in the teaching of idiomatic expressions.

KEYWORDS: Deductive teaching; Idiomatic expressions; Inductive teaching; Memory retention

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CORRESPONDING AUTHOR

E-mail: mehrani@neyshabur.ac.ir

1. Introduction

The acquisition of idiomatic expressions presents a distinctive challenge for second language (L2) learners due to their intricate nature. Despite their significance for achieving native-like fluency (Wray, 2000), idiomatic expressions often find themselves relegated in English course books, with language teachers often opting to overlook their instruction. McLaughlin et al, (1983)

contends that the use of idiomatic expressions is a distinguishing feature between native and non-native speakers, highlighting the inherent complexity faced by the latter. Consequently, while the acquisition of idiomatic expressions poses a formidable challenge, it is imperative for course book designers to allocate due attention to their inclusion into syllabi, and educators to employ the most effective teaching methodologies.

Presently, consensus exists regarding the importance of teaching idiomatic expressions to L2 learners. However, when it comes to the discussion of the most effective approach for teaching idiomatic expressions, educators' opinions diverge. In fact, this divergence of perspectives often manifests as a debate between deductive and inductive teaching methods. Deductive teaching involves imparting learners with explicit rules and subsequently applying those rules to meaningful examples (Thornbury, 1999). Conversely, inductive teaching methods provide learners with examples, prompting them to analyze and infer the underlying rules independently (Ellis, 2010). Despite numerous studies exploring the efficacy of deductive and inductive methods for teaching grammar, there seems to be a lack of conclusive consensus among researchers, particularly on the impact of these methods on the production of idiomatic expressions.

To address this gap, the current study was set to investigate the relative influence of deductive and inductive teaching methods on the production of English idiomatic expressions among Iranian EFL learners. While the relative advantages and disadvantages of these methods have been extensively explored in English-dominant societies, the generalizability of their findings to regions where English is a foreign language remains uncertain. The lack of consensus is evident in studies favoring either inductive (e.g. Abdolmanafi Rokni, 2009) or deductive approaches (Berendse, 2012; Erlam, 2003; Nazari, 2012; Shih, 2008). Additionally, there is a scarcity of research comparing these methods in the specific context of ESL/EFL classes. Therefore, this study aims to scrutinize deductive and inductive teaching methods in the Iranian EFL context, assessing their impact on English idiomatic expression production, learner attitudes towards each method, and the challenges faced by learners. On this basis, this study addresses the following research questions.

1. Do different teaching methods, specifically deductive versus inductive approaches, yield variations in the production of taught L2 idiomatic expressions?
2. What are the students' attitudes toward the effectiveness of each instructional method?
3. What challenges do Iranian EFL students encounter in the acquisition of idiomatic expressions?

Aligned with Doughty and Williams (1998), who advocate for the efficacy of the inductive approach in language teaching, and also based on Mohamadi Asl's (2013) findings emphasizing the effectiveness of teaching idiomatic expressions in extended contexts, we hypothesized that students instructed inductively would demonstrate greater accuracy in the production of English idiomatic expressions.

2. Literature Review

Idiomatic expressions, characterized by their intricate syntax and meanings modifying literal interpretations, present a formidable challenge for second language (L2) learners. Despite the universal acknowledgment of their significance in achieving native-like fluency, there is no consensus over a universally accepted definition for idiomatic expressions. Nattinger and De Carrico's (1992) description of idiomatic expressions as "complex bits of frozen syntax" reflects the intricacies faced by learners in comprehending these linguistic constructs. Existing research on L2 idiomatic expression learning reveals a diverse range of findings (Irujo, 1986; Cooper, 1999; Alhaysony, 2017).

Early investigations by Irujo (1986) delved into the organizational aspects of L2 idiomatic expressions. His study explored the influence of the first language on advanced learners' comprehension and production of English idiomatic expressions. Notably, the study categorized idiomatic expressions based on their similarity to learners' native language (Spanish). Findings highlighted the ease of understanding and production for idiomatic expressions identical to those in the native language, suggesting a nuanced relationship between L1 and L2 idiomatic expression acquisition.

Other studies have revealed that the age of learners can be a pivotal factor influencing their acquisition of idiomatic expressions. In fact, research indicates that individuals under the age of nine tend to interpret idiomatic expressions literally (Cacciari & Levarato, 1989). This phenomenon, supported by several studies (e.g. Cacciari & Levarato, 1989; Douglas & Peel, 1979), is supported by Piaget's theory of cognitive development, attributing the literal interpretation tendency to the limited abstract thinking abilities of younger children (Piaget, 1959).

Contextual influence on learning various idiomatic expressions is also well-documented. For instance, Mohamadi Asl (2013) explored the role of context in the learning experiences of Iranian ESL students, revealing that extended contextual exposure significantly improved immediate and delayed post-test scores compared to limited and decontextualized contexts. Consistent with this finding, other studies emphasize the facilitating effect of context on the acquisition of idiomatic expressions across various age groups (Cacciari & Levarato, 1989).

Despite the extensive body of literature various pedagogical instructions, specifically deductive versus inductive approaches, limited research has investigated the relative effectiveness of these teaching methods on learning idiomatic expressions. As a matter of fact, most of the previous studies have exclusively focused on the acquisition syntactic elements. For example, Erlam (2003) examined the impact of deductive and inductive teaching methods on the acquisition of direct object pronouns in French as a second language. The deductive group, receiving explicit rule presentations, exhibited significant improvement compared to the inductive group, emphasizing the potential efficacy of deductive approaches. More recently, Berendse's (2012) study on English past and present tenses contributed to the debate, revealing an initial similarity between the short-term effect of deductive and inductive teaching but demonstrating the long-term superiority of deductive instruction. This discrepancy in findings highlights the complexity of the deductive-inductive dichotomy and its context-dependent outcomes.

Nevertheless, studies by Haight, Herron, and Cole (2007), Abdolmanafi Rokni (2009), and Vogel et al. (2011) challenge the presumed superiority of deductive methods. Haight et al.'s (2007) research on elementary learners of French as a foreign language revealed higher mean scores for inductive instruction across both short-term and long-term tests. Abdolmanafi Rokni (2009) similarly reported the superiority of inductive approaches among Iranian university EFL students. Vogel et al.'s (2011) findings, while emphasizing the short-term efficacy of inductive approaches, underscored inconclusive long-term effects.

Studies such as those conducted by Jean and Simard (2013), Chalipa (2013), and Lee and Lin (2019) present a nuanced perspective, revealing the similarity of deductive and inductive methods in terms of learning outcomes. More specifically, Jean and Simard's (2013) empirical study revealed comparable learning outcomes between deductive and inductive approaches, despite student preferences for deductive instruction. In the Iranian context, Chalipa (2013) found no significant difference in the influence of inductive and deductive grammar teaching on Iranian university students, challenging some of the previous studies that presumed a greater efficacy for deductive approaches. Similarly, Lee and Lin's (2019) investigation into the acquisition and retention of vocabulary through inductive and deductive teaching methods found no significant differences between groups, challenging the prevailing assumptions about the efficacy of one approach over the other.

Alhaysony's (2017) observation that language teachers traditionally prioritize grammar over idiomatic expressions due to the perceived difficulty in teaching them highlights the need for dedicated attention to idiomatic expression instruction. Pimenova's (2012) identification of five main challenges in learning idiomatic expressions, including unknown vocabulary, cultural differences, and lack of contextualization, further emphasizes the multifaceted nature of idiomatic expression acquisition.

In conclusion, the literature reflects numerous studies investigating the role of various factors related to the acquisition of idiomatic expressions. There are also a considerable number of empirical studies, comparing the effects of deductive and inductive instruction on the development of language learners' grammatical competence. However, there is a scarcity of research comparing the actual impact of these methods for learning idiomatic expressions in the specific context of ESL/EFL classes. The varied and inconclusive findings across studies underscore the need for further exploration, particularly in the Iranian EFL context, to develop more effective guidelines for teaching idiomatic expressions. Therefore, the present study aims to bridge this knowledge gap by examining the impact of deductive and inductive teaching methods on the production of English idiomatic expressions among Iranian EFL learners, considering learner attitudes and challenges encountered in the process.

3. Methodology

3.1. Participants

The study included a total of 32 participants; however, due to attrition, only 26 participants completed the study. The participants consisted of 16 males and 10 females, aged 13 to 17 ($M = 15.3$, $SD = 0.95$). These Iranian non-native English learners had a maximum of one year of experience in learning English as a foreign language. They were monolingual native speakers of Persian and were studying English in a private language institute in Neyshabur during the spring semester of 2021.

Participants were enrolled in four intact classes, and at the beginning of the course, they were informed about additional activities focusing on idiomatic expressions. Participation in these activities was voluntary, with no mandatory requirement, and no additional marks were assigned for participation. Homogeneity in language skills was established through the Face-to-face Cambridge University placement test, which categorized all participants as elementary learners. Two classes were randomly assigned to receive deductive instruction, while the other two received inductive instruction. Both groups received instruction twice a week for an hour and a half over a 10-week period.

- Group A: 12 students (7 male, 5 female), aged 13 to 17 ($M = 15.08$, $SD = 1.08$), received deductive teaching method for English idiomatic expressions.

- Group B: 14 students (9 male, 5 female), aged 13 to 17 ($M = 15.14$, $SD = 1.02$), received inductive teaching method for English idiomatic expressions.

3.2. Instruments

The study utilized various instruments, including a placement test, a pre-test, post-tests, and a questionnaire, all specifically designed for this research. Initially, Cambridge University placement test was employed to assess the homogeneity of learners. This test included questions resembling natural conversation interactions, aiding in placing students in appropriate classes based on their language proficiency.

To measure the students' baseline knowledge of idiomatic expressions, a pre-test consisting of 24 completion questions was administered. The questions presented various scenarios requiring appropriate idiomatic expressions. The pre-test results indicated a lack of familiarity with idiomatic expressions among students.

Eight immediate post-tests, administered at the end of each session, comprised eight completion questions assessing learners' understanding of idiomatic expressions. Additionally, a delayed post-test, consisting of 24 completion questions, was administered at the end of the course.

Finally, an open-ended questionnaire specifically designed for the purpose of this study was administered during the final session of the course to evaluate students' attitudes towards deductive and inductive teaching methods for idiomatic expressions and identify the difficulties they encountered. In an attempt to eliminate potential language barriers, the questionnaire was designed in Persian. The data collected through the questionnaire were thematically analyzed in order to answer the second and the third research questions.

3.3. Procedure

Participants were divided into two groups based on the treatment received – deductive or inductive teaching methods. At the outset of the course, the pre-test was used to assess participants' idiomatic expression knowledge. The deductive group (12 students) received explanations in class with opportunities for questions and direct feedback on errors. Activities included completing handouts and sentence writing for explanation. For instance, the idiomatic expression "As simple as ABC" was introduced with meaning and examples, followed by substitution exercises. In the inductive group (14 students), sentences with idiomatic expressions were presented, and students worked in groups to deduce meanings, with the correct meanings later presented by the professor. Both groups received 30 hours of instruction (3 hours weekly) over 10 weeks. The post-tests were then used, both at the end of each session and at the end of the course to assess students' improvement.

4. Results and discussion

To assess the baseline knowledge of the participants' idiomatic expressions, an independent samples t-test was conducted, comparing the pre-test scores of both the deductive and inductive groups. The results indicated no statistically significant difference in the knowledge of target idiomatic expressions between the deductive and inductive groups before the treatment $t(24) = 2.579$, $p = .121$.

Having ensured that students in both groups were not different in terms of the knowledge of idiomatic expressions prior to the instruction, we then conducted a series of comparisons across eight immediate post-tests administered at the end of each treatment session. The tests, each consisting of eight items, were designed to maintain consistent difficulty levels using the same rubrics and question stems. Conducting independent samples t-tests, the results, summarized in Table 1, largely indicated no statistically significant difference between the deductive and inductive groups in terms of immediate retention of idiomatic expressions.

Table 1. Results of the scores of the immediate post-tests in the deductive and inductive groups

Immediate Post tests	Deductive group		Inductive group		<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
1 st test	5.91	1.31	7.00	1.24	0.04
2 nd test	6.66	1.15	7.14	1.29	0.33
3 rd test	6.58	1.67	6.71	1.72	0.84
4 th test	6.00	1.85	6.50	2.21	0.54
5 th test	5.66	1.72	6.21	1.57	0.40

6 th test	5.33	1.55	6.35	1.64	0.11
7 th test	6.25	1.65	5.85	2.03	0.59
8 th test	5.58	1.78	6.35	1.15	0.19

Subsequent analyses included the comparison of the initial and final performances of the students in each group. As presented in Table 2, a paired-samples t-test was employed to examine the impact of the inductive teaching method on delayed idiomatic expressions test scores. The results reveal a statistically significant difference $t(13) = -6.98, p = 0.00$ in scores between the pre-test ($M = 6.14, SD = 2.34$) and the post-test ($M = 12.64, SD = 3.62$) in the inductive group, indicating a significant increase in post-treatment scores.

To assess the effects of the deductive teaching method on delayed idiomatic expressions test scores, a paired-samples t-test was similarly conducted. As illustrated in Table 2, statistical analyses revealed a significant difference, $t(11) = -2.70, p = 0.02$ between the pre-test scores ($M = 5.33, SD = 1.30$) and post-test scores ($M = 8.75, SD = 4.20$) in the deductive group.

Table 2. The descriptive statistics of pre-test and delayed post-test for the both groups

Tests/groups		N	Mean	SD	Min	Max
Pre-test	Deductive	12	5.33	1.30	3	8
	Inductive	14	6.14	2.34	2	11
Post-test	Deductive	12	8.75	4.20	5	17
	Inductive	14	12.64	3.62	3	19

Finally, to examine the disparity in delayed post-test scores between the deductive and inductive groups, an independent samples t-test was executed. A statistically significant difference emerged in favor of the inductive group $t(24) = -2.53, p = 0.018$, indicating that the effect of inductive instruction was statistically more significant than the effect of deductive instruction.

The second research question delved into students’ preferences regarding teaching methods, elicited through a questionnaire. Participants predominantly favored the inductive teaching approach. Although some acknowledged its inherent difficulty, they underscored its efficacy in facilitating better retention of idiomatic expressions. An illustrative response from an inductive course participant reveals this sentiment.

At first, it was really difficult to guess the meaning [of an idiomatic expression]. But gradually it got easier. It took a long time and maybe we were confused at times, sometimes I thought that I would not remember a single word, but when I saw the questions, I remembered all our discussions.

In justifying their choice, students recurrently highlighted the effectiveness of guessing activities. The perceived advantage lay in leveraging collective insights during discussions with their peers to come up with the meaning of the expressions, aiding better recall during assessments. This resonates with findings by Koschmann et al. (1996), emphasizing the cognitive benefits of discovery learning and collaborating with peers in fostering deep reflections and the incorporation of new ideas into existing knowledge.

Moreover, students expressed a reliance on contextual cues for memorizing idiomatic expressions, reinforcing the notion that a rich context enhances learning. While students might resort to their native language when context is absent, the preference is inclined towards utilizing a rich context for learning L2 idiomatic expressions.

In synthesis, the empirical evidence highlights the fact that understanding the meaning of single-word items does not necessarily translate to automatic comprehension of multi-word items (Cacciari and Levarato, 1989; Mohamadi Asl, 2013; Pimenova, 2012). Consequently, students posit that the inductive teaching method, fostering collaborative discussions within a rich contextual framework, renders the production of idiomatic expressions more accessible and accurate.

The third research question in this study aimed to discern the challenges learners face while acquiring idiomatic expressions. As explained earlier, the researchers used a survey questionnaire to elicit data pertinent to this research question. The survey, already used in some previous studies (Alhaysony, 2017; Cooper, 1999; Irujo, 1986; Liontas, 1999; Pimenova, 2012; Saleh & Zakaria, 2013), comprised seven items. Students were asked to select the items that posed difficulties in their acquisition of idiomatic expressions.

Table 3 encapsulates the outcomes, revealing that a substantial number of learners experienced various problems with comprehending idiomatic expressions. The consensus among students was that combining vocabulary meanings within an

idiomatic expression did not necessarily unveil its intended meaning; at times, it even ‘mised’ learners from the actual connotation. A student’s testimonial illustrates this predicament.

Sometimes the vocabulary in the idiomatic expression causes some problems. For example, there was an idiomatic expression “A pain in the neck”, and we had a unit about health, and we learned about some health problems such as a stomachache. The teacher told us that “a stomachache is when you have a pain in your stomach”. Then when I saw this idiomatic expression, I thought that this was related to some health problem which I do not know the exact word yet.

Table 3. Difficulties learners face during learning idiomatic expressions

Challenges experienced by learners	Frequency
The difference between the figurative and the literal meanings of idiomatic expressions.	9
Lack of enough contextual clues.	7
Lack of equivalence in Persian.	3
The interference from the first language.	2
Lack of experience and exposure with idiomatic expressions.	2
Lack of cultural background.	2
They often contain unfamiliar words.	1

Additionally, the findings underscored the complexity associated with idioms, particularly due to the absence of dedicated courses focused on idioms. Participants articulated that idiomatic expressions are often ‘marginalized’ within their English courses. This was particularly explained by one of the students in the following way.

I love idiomatic expressions. When I was in elementary school, I had a teacher who taught us some idiomatic expressions by telling their stories. But from then on, there was not a time when we could talk about them. And now it is really good that in this class we have some time specific to idiomatic expressions.

A further potential difficulty in acquiring idiomatic expressions stems from the challenge of understanding expressions that lack counterparts in the learners’ native language, Persian. Students’ reflections shed light on this point.

Those idiomatic expressions which have analogues in Persian, e.g., ‘Roll up your sleeves’ or ‘A wolf in sheep’s clothing,’ are much easier to understand and even to use in a sentence. But those that we do not have in Persian, e.g., ‘Once in a blue moon,’ although it is not really hard, because we do not have any analogue in Persian, remembering them seems a bit hard.

This observation aligns with Pimenova’s (2012) findings, highlighting that L2 idiomatic expressions lacking counterparts in the mother tongue pose greater difficulty in comprehension and usage.

Beyond the aforementioned challenges, participants’ responses highlighted that idiomatic expressions featuring unfamiliar words and lacking contextual cues presented the most formidable challenges in terms of comprehension and production. Participants emphasized that context helps them get closer to meaning. An illustrative example from a participant emphasized the role of context.

Some idiomatic expressions are so much alike in my eye. For example, ‘Money doesn’t grow on the tree’ and ‘Cost an arm and a leg’ are very similar to each other. And in the test, I could differentiate between these two with the help of context.”

This finding aligns with previous studies demonstrating how a supportive context facilitates the understanding of idiomatic expressions (Mohamadi Asl, 2013; Irujo, 1986; Rohani et al., 2012).

Another reported difficulty seemed to be rooted in the interference caused by the learners’ native language, Persian. Some learners encountered challenges when the idiomatic expression’s meaning seemed unrelated to its constituent vocabulary. For instance:

“The meaning of some idiomatic expression has got nothing to do with its words. When the teacher told us the meaning of ‘it is raining cats and dogs,’ I always forget the meaning and I think it means that there are so many cats and dogs somewhere, because in Persian we have an idiomatic expression which is a little like this ‘از زمین و آسمان’ می بارد and it means that there are many objects somewhere. But if I could practice with some examples, then I would be able to remember the situation and would not make mistakes anymore.

This difficulty is consistent with Derakhshan and Karimi’s (2015) findings, which highlighted the interference of the first language with the second language, influenced by factors such as prior knowledge, language proficiency, and structural differences between the two languages.

5. Conclusion

This study aimed to investigate the impact of different teaching methods on the production of idiomatic expressions, students' preferences for these methods, and the challenges faced during the process of learning idiomatic expressions. In addressing the first research question, immediate post-tests were employed to evaluate the impact of inductive and deductive teaching methods on the accuracy of written production. The tests, administered after each session, revealed no significant differences between the two groups. This absence of a significant difference is consistent with findings from previous studies (e.g. Allison, 1959; Chalipa, 2013; Dotson, 2010; Jean & Simard, 2013). Chalipa (2013) reported similar results in terms of short-term learning, but in the current study, the inductive method yielded significantly superior results in long-term learning. This difference was particularly more pronounced in the inductive group. In fact, the inductive group displayed a more substantial increase in average scores of the delayed post-test. The inferential statistics underscored the significance of this difference, suggesting a more pronounced benefit from the inductive method in long-term retention.

The second research question explored participants' preferences for different teaching methods. The majority of participants expressed a preference for the inductive approach over the deductive one. This finding contradicts some previous studies (e.g. Dotson, 2010; Jean & Simard, 2013; Vogel et al., 2011). Participants believe that group work fosters collaborative learning, enabling them to assist each other in grasping language-specific nuances and resolving uncertainties in English.

The third research question delved into the challenges faced by learners in understanding and producing idiomatic expressions. The results unveiled several difficulties, including the absence of a cultural background for many idiomatic expressions. Iranian EFL learners encountered challenges in learning L2 idiomatic expressions without L1 analogs. Additionally, the study highlighted that idiomatic expressions are often neglected in the EFL curriculum, necessitating increased attention in course design. The significance of context in learning idioms emerged as a pivotal factor, supporting findings from previous research (Pimenova, 2012; Saleh & Zakaria, 2013). Recognition of the structural intricacies and comprehension of idiomatic expressions demand enhanced focus in EFL courses.

In conclusion, this study offers valuable insights into the nuanced impact of teaching methods on idiom acquisition, learners' preferences, and the inherent difficulties faced. The findings emphasize the need for pedagogical adaptations to address these challenges and underscore the importance of integrating idiomatic expressions into EFL curricula.

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