Mexican High School Students' Perceptions Regarding Inductive and Deductive Grammar Teaching

José Luis Castillo Gallardo

University of Guanajuato, Guanajuato, MEXICO
Division of Social Sciences and Humanities

Abstract

The purpose of this study was to discover the perceptions that Mexican high school students hold toward deductive and inductive grammar teaching. This study followed the qualitative method to make sense of the data provided by the participants. The study took place in a private catholic high school in Guanajuato, Mexico. Three female Mexican students who were on average 17 years old were the participants in this investigation. This research was a case study that examined participants' perceptions very closely. The data in the study were gathered through two questionnaires, and one interview. To analyze the data, the researcher implemented thematic analysis which permitted the identification of salient themes. Overall, the results seem to suggest that students perceive the implementation of the inductive approach as an interactive teaching strategy that generates an appealing learning environment. On the negative side, the participants considered that the use of the inductive approach took too much class time, and they saw this as a disadvantage. Moreover, the results indicate that students are used to the deductive approach, and they consider it to be easier to be applied and followed in the language classroom.

Keywords: perceptions, grammar teaching, deductive grammar, inductive grammar.

1. Introduction

In a large of number of Mexican high school classrooms, the teaching of grammar rules either in a deductive or an inductive way seems to be a regular practice (Sayer, 2015). English instructors in high schools use these two approaches to teach grammar to different extends in their lessons. The teaching of grammar rules in English classes using these two approaches may yield different results (Benitez-Correa et al., 2019). The inductive and the deductive grammar teaching approaches may also have a different influence on the students, so they may hold distinctive perceptions in regard to these two approaches. Grammar teaching has been widely used in classrooms all over the world, but according to Pazaver and Wang (2009) "there exists a gap in the literature as regards students' perceptions on this important topic" (p. 27). Therefore, the present study was carried out with the intention to discover Mexican learners' perceptions regarding the implementation of the inductive and deductive grammar teaching approaches in a Mexican high school classroom.

This research work was conducted in central Mexico, a region in which high school English programs still contemplate grammar teaching as a predominant aspect of language Teaching. Teaching grammar in English courses is still a prevalent practice despite the fact that

Correspondence: José Luis Castillo Gallardo, University of Guanajuato, Division of Social Sciences and Humanities, Guanajuato, MEXICO.

since 1994 the Mexican educational authorities have selected English programs based on the communicative language teaching approach (CLT) which poses minimal emphasis on the explicit teaching of grammatical rules (Sayer, 2015). Even though presenting grammatical rules in a language classroom is considered an old and controversial way of teaching (Ellis, 2006), Alzu'bi (2015) indicates that "The teaching of grammar plays a central role in every English foreign language (EFL) teacher's classroom and has been the focus of language teachers and learners for many years" (p. 187). It appears to be that grammar is considered a central element in English teaching, so that may explain why grammar teaching is strongly grounded in some Mexican high school EFL classrooms.

2. Literature review

In this section, the author will include some relevant concepts related to the teaching of grammar deductively and inductively in the Mexican high school EFL classroom.

2.1 *Grammar*

Grammar is a language component that may be challenging to define since it comprises several language elements in itself. Nevertheless, Close (1982, as cited in Dickins & Woods, 1988) establishes that "English grammar is chiefly a system of syntax that decides the order and patterns in which words are arranged in sentences" (p. 627). However, due to further research and changes in the scholars' perceptions related to what grammar is, nowadays, the definition provided by Close (1982) may need to be expanded and modified. Dickins and Woods (1988) propose that language experts consider that grammar cannot be exclusively related to syntax. There are other linguistic forces that shape grammar. For example, pragmatic and semantic elements of a language.

2.2 *Grammar teaching*

Defining grammar and grammar teaching has proven to be a difficult task; fortunately, Ellis (2006) provides a comprehensive definition of grammar teaching and proposes that:

> Grammar teaching involves any instructional technique that draws learners' attention to some specific grammatical form in such a way that it helps them either to understand it metalinguistically and/or process it in comprehension and/or production so that they can internalize it. (p. 84)

Silvia (2004) also offers a definition of grammar teaching that could serve to better comprehend this concept. In a direct way, Silvia (2004) mentions that "Teaching grammar is basically teaching the language rules, also known as the sentence patterns, which are essential to define meaning and use" (p. 127). Furthermore, Silvia (2004) mentions that "In traditional setting, grammar teaching is seen as the presentation and practice of discrete grammatical structures" (127).

In the same stream, Silvia (2004) provides reasons to support that grammar teaching is beneficial for EFL learners and states that "Grammar teaching holds a crucial role in English as a Foreign Language (EFL) teaching, as without good command of grammar, the language use will be constrained" (p. 127). However, Alzu' bi (2015) also recognizes that there are views in favor and against grammar teaching, and this author remarks that "Some people perceive it *[grammar teaching]* as essential to teaching any foreign language whereas others view it as an impediment to second language acquisition (SLA)" (p. 187, *emphasis added*).

2.3 *Deductive-grammar teaching*

The presentation of grammatical rules could happen in several ways, yet in this research the author only focused on the deductive and inductive grammar teaching approaches. It is necessary to define each approach in order to have a clear view of what each of them entails. The deductive-grammar teaching approach is popular in language classrooms, and it requires that the teacher presents a set of rules openly to the students, so they can apply the rules to complete exercises. Benitez-Correa et al. (2019) offers a definition of deductive grammar teaching and states that "Teaching grammar from rules involves the deductive or rule-driven approach, which starts with the introduction of a rule followed by examples in which the rule is applied" (Benitez-Correa et al., 2019: 227).

2.4 *Inductive-grammar teaching*

Opposite from the deductive approach, in the inductive approach the instructor presents examples of the target language first, so the students can notice and make generalizations of the rules contained in the language examples. Benitez-Correa et al. (2019) determines that "Teaching grammar from examples is related to the inductive or rule-discovery approach that starts with some examples from which a rule is inferred" (p. 227). In the inductive approach, the learners are guided by the instructor to notice patterns and infer the rules that are usually embedded in sentences or complete texts. The concept of noticing is relevant in this grammar teaching approach as it derives from the noticing hypothesis which claims that "second language learners must consciously notice the grammatical form of their input in order to acquire grammar" (Truscott, 1998: 103).

3. Methodology

In this section, the researcher will describe the methodology followed in this study, so the audience can better understand how the data were gathered, categorized, and interpreted.

3.1 *Research question*

What are common high school learners' perceptions toward the deductive and inductive teaching of grammar rules in a Mexican high school classroom?

3.2 *Participants*

The students, who participated in this study, volunteered to do so. The participants were three high school students whose average age was 17 years old. They were enrolled in a private high school in central Mexico, and they had had English classes in that institution for one and a half years. Their proficiency level was A2. Previous to the beginning of the study, the researcher explained the main objectives of it to the participants, and they were informed that their participation was voluntary. Since the participants were minors, the participants' parents were asked to sign a letter of consent that gave permission to the researcher to use the data provided by the participants. In the letter of consent, the researcher informed the parents that the participants' privacy would be of outmost importance and that the information collected would be used only with academic purposes.

3.3 *Procedure*

In this study, the participants were presented a grammar topic (gerunds and infinitives after verbs) where the teacher used the inductive approach of grammar teaching in one lesson, and one week later they were presented another topic (Gerunds as subjects and as objects) using the deductive approach. After each lesson, the participants were given a questionnaire that they could answer at home. Once the questionnaires were answered, the researcher collected them. Then, the participants were asked to answer a three-question interview. It needs to be stated that all the data collection instruments were answered in Spanish by the participants, so the quotes used in this study were translated into English.

3.4 *Qualitative approach*

The primary goal of this research work was to discover high school students' perceptions toward the inductive and deductive grammar teaching approaches. For that reason, the study followed a qualitative approach since "The main purpose of conducting qualitative research is to examine in detail the opinions and experiences of the participants in order to understand of and/or interpret the phenomena according to the meaning that participants attach to them" (Denzin & Lincoln, 2017, cited in Huertas-Abril et al., 2021: 4). Friedman (2012) indicates that "Qualitative research is a distinct approach to scholarly inquiry that may also entail a different set of beliefs regarding the nature of reality (ontology) and ways of knowing (epistemology)" (p. 181). Furthermore, Dörnyei (2007) establishes that "Qualitative research involves data collection procedures that result primarily in open-ended, non-numerical data which is then analyzed primarily by non-statistical methods" (p. 24).

Definitions and characteristics of qualitative research are addressed by several scholars; however, Denzin and Lincoln (2000, cited in Snape & Spencer, 2003) describe other relevant features that make qualitative research useful for the study at hand. For instance, these authors state that "Qualitative research is a situated activity that locates the observer in the world […] Qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them" (pp. 2-3).

3.5 *Case study*

This investigation was carried out following the case study research methodology since the focus of the research was placed on a specific group of individuals carrying out an activity in a specific context. In regard to this research methodology, Duff (2012) declares that:

> Its focus is a small number of research participants […] The individual's behaviors, performance, knowledge, and/or perspectives are then studied very closely and intensively, often over an extended period of time, to address timely questions regarding […] current topics in applied linguistics. (p. 95)

Despite being a case study, this research work is cross-sectional in nature. The researcher spent only one month gathering data from the participants. In contrast, in terms of studying the participants closely, the researcher utilized two instruments to collect data in order to obtain a deeper understanding of the participants' perceptions toward deductive and inductive grammar teaching.

4. Inquiry tools

The instruments utilized to gather data from the participants will be illustrated in this section.

4.1 *Questionnaire and interview*

In order to elicit data from the participants, which "involves the use of an instrument to generate data" (Friedman, 2012: 187-188), the researcher applied one open-ended questionnaire. The questionnaire inquiry tool was chosen by the researcher because it had the potential to promote that the participants shared details about their perceptions regarding the use of deductive and inductive grammar-teaching approaches in the classroom. Freidman (2012) mentions that "The advantages of questionnaires are that they are easier to administer, allow participants more time to formulate responses, and do not need to be transcribed" (p. 190).

From the responses given by the participants in the questionnaire, the researcher developed and delivered a structured interview with the intention to explore more in depth the noteworthy comments found in the first data collection tool (Open-ended questionnaire). Friedman (2012) mentions that "The most common data elicitation method is interviews, which may be structured, semi-structured, or unstructured" (p. 188). More specifically, in this research work, the author decided to make use of a structured interview since in "structured interviews, the same set of questions is asked of all participants in order to permit cross-case comparisons" (p. 188).

5. Data analysis

In this study, the data collected from the participants were analyzed using thematic analysis with the intention to find salient themes regarding students 'perceptions toward deductive and inductive grammar teaching (Alhojailan, 2012). Four categories emerged from the data: (1) Positive perceptions of the inductive approach; (2) Drawbacks of the inductive approach; (3) Positive perceptions of the deductive approach; (4) Drawbacks of the deductive approach. To code the data, the participants were assigned a number from one to three. Q1 and Q2 referred to questionnaire 1 and questionnaire 2 respectively, and the abbreviation I stood for interview. Finally, the views of the participants were interpreted by the researcher.

6. Main findings and discussion

As stated in the data analysis section, four main categories emerged from the data collected, so the findings will be divided in the same number of sections.

6.1 *Positive perceptions of the inductive approach*

In questionnaire number 1, some participants remarked that with the inductive approach of grammar teaching they felt more involved in the actions happening in the classroom since the lesson became more welcoming and interactive. While using the inductive grammar teaching approach, there was a constant conversation between the teacher and the students, so the students seemed to appreciate that they were active participants in the discovery of some grammar rules. The following excerpts exemplify that:

> *I found the inductive way of teaching grammar very good because the teacher did not explain the rules as such and made the class more participative by letting us dig into our knowledge to discover the rules. (P3Q1)*

> *With the inductive approach, the class was more active and everyone participated. (P1Q1)*

The information stated in the extracts above suggests that the participants valued the fact that with the inductive approach the language classroom became an interactive forum where

they could express their ideas. Furthermore, it appears to be the case that the inductive approach promoted the growth of rapport in the classroom which as Benitez-Correa et al. (2019) recognize is one benefit of the inductive approach. Benitez-Correa et al. (2019) also indicate that rapport in the language classroom grows because of students' participation and interaction with the teacher.

Another positive perception of the inductive approach expressed by one participant was that it has the potential to promote that grammar rules can be better understood. This particular finding aligns directly with the results of a study conducted by Haight et al. (2007) in which it was uncovered that the guided inductive grammar teaching approach produced substantially positive effects on the long-term learning of grammatical structures. The next excerpts clearly represent this conception:

> *With the inductive approach, I felt really good because this approach led us to think, to reason, to identify, and to realize the grammar rules that the examples followed. (P1Q1)*

> *The inductive approach helped to me to comprehend the topic much better because the teacher made us reason. I had to think to find the rules. (P1Q1)*

The data above allows to observe that the inductive approach appears to positively influence the students' comprehension and retention of the grammatical information presented in class. This boost in comprehension and retention may have been caused by the intense mental effort that the students had to devote to decipher the grammar rules comprised in the examples given by the professor (Warren, 2013). In the same stream, by consciously noticing the grammatical rules in the input (Truscott, 1998), chances are that learners could have mentally internalized the information presented in a more successful way.

6.2 *Drawbacks of the inductive approach*

The inductive approach to teach grammar rules offered several advantages according to the data provided by the participants; however, the three students involved in this research pointed out that the class time required to discover the grammar rules using the inductive approach was excessive. The learners saw this aspect as a major flaw of the inductive approach, and for this reason, they considered that it was not completely appropriate to be used in 50-minute high school classes. The next excerpts reveal the participants perceptions in regard to the time consumed when the inductive approach was used:

> *With the inductive form, we take longer in the explanation and the whole class goes there and there is almost no time to do exercises and reinforce what has been learned. (P1I)*

> *With the inductive form, it took us more time to discover the rules, the class ended, and I did not have time to complete the exercises. (P2I)*

> *With the inductive approach, I feel that the class becomes long and even tedious. I feel like we don't make progress because we don't all understand the rules. The truth is that I consider that we wasted a lot of class time. (P3I).*

The three participants agree that discovering the grammar rules from contextual examples of the language is time consuming. Consequently, this shortens the time to complete exercises, so they can put the grammar being presented into practice. In general, the participants appear to see a need to find a balance between the time allotted to carry out the guided-grammar-rule discovery and completing exercises to provide further practice.

_____

6.3 *Positive perceptions of the deductive approach*

The data showed that there was a general consensus among the participants in regard to the fact that they find the deductive approach to be simple and clear, as suggested in the following extracts:

> *I felt really good with the topic. The rules were given, so it was simple and very comprehensible. (P1Q2)*

> *I felt that with the deductive approach, it was a bit easier to complete exercises. (P2Q2)*

> *I felt great because the teacher gave us the grammatical rules, so I did not have any complications while completing the exercises. (P3Q2)*

The responses above denotate that the three Mexican learners are accustomed to the deductive approach. Quite frankly this is not a surprise. In Mexico as in other parts of the world, Presentation Practice Production (PPP) "constitutes the dominant approach promoted in teacher guides" (Scrivener, 2005; Ur, 1996, cited in Ellis, 2015: 266). In the Mexican context, PPP with its deductive nature, is widely used not only in English classes but also in other subjects such as, math, chemistry, or physics. The constant application of this teaching methodology in Mexican classrooms has probably led the participants to perceive it as simple and easy to be followed.

6.4 *Drawbacks of the deductive approach*

Despite the fact that the deductive approach is widely applied in the Mexican education system, the information provided by the participants illustrated that students perceived one major flaw on this teaching approach. The shortcoming of the deductive approach was the unpleasant learning environment that it could create. The next excerpt serves to exemplify this:

> *This way of explaining a grammar topic (deductive approach) is more efficient, we (the students) have time to learn rules and complete exercises, but, on the other hand, the lessons where the deductive approach is used tend to become slow and heavy because we do not interact much, and we really do not have to think. (P3Q2)*

From the extract previously presented, one could infer that learners believe that the deductive approach may be detrimental to the development of meaningful interactions in the classroom. The learners appear to acknowledge that the lack of positive teacher-student and student-student interaction negatively affects the learning atmosphere (Saricoban, 1998, as cited in Saricoban, 2005). Additionally, learners seem to distinguish that by using the deductive approach, the teacher monopolizes the talking time, so they may not feel engaged in the classroom activities; thus, developing the perception that the lessons are slow and boring. It appears to be that the teaching technique selected by the teacher greatly influences the students' learning experience.

7. Conclusion

The purpose of this research work was accomplished on the grounds that it permitted the discovery of some perceptions that Mexican high school students hold regarding the inductive and deductive grammar teaching approaches. The participants in this study noticed that the inductive approach generated positive effects on classroom interactions and the classroom atmosphere. The participants valued that with the guided inductive approach, they were active participants in the lesson. However, despite the nice learning environment that the inductive approach promoted, the participants perceived that this approach can take too much class time. The participants saw this as a disadvantage because they did not have enough room to do extra

exercises to practice the grammar rules being presented. The participants perceptions in regard to the deductive approach showed that they find this way of teaching grammar easy and clear because they are used to it. This way of teaching is employed not only in English classes but also in other subjects; therefore, students are familiar with the deductive approach. Finally, the participants noted that with the deductive approach, a language class may become tedious since the teacher is the only one talking and meaningful interactions are limited.

The author of this study hopes that the students' perceptions regarding the inductive and deductive grammar teaching approaches found in this research work serve English teachers to make informed decisions on the way they present grammatical information in their classes.

References

Alhojailan, M. I. (2012). Thematic analysis: A critical review of its process and evaluation. *West East Journal of Social Sciences*, *1*(1), 39-47. http://westeastinstitute.com/journals/wp-content/uploads/2013/02/4-Mohammed-Ibrahim-Alhojailan-Full-Paper-Thematic-Analysis-A-Critical-Review-Of-Its-Process-And-Evaluation.pdf.

Benitez-Correa, C., Gonzalez-Torres, P., & Vargas-Saritama, A. (2019). A comparison between deductive and inductive approaches for teaching EFL grammar to high school students. *International Journal of Instruction, 12*(1), 225-236. https://doi.org/10.29333/iji.2019.12115a

Dickins, P. M. R., & Woods, E. G. (1988). Some criteria for the development of communicative grammar tasks. *TESOL Quarterly, 22*(4), 623-646. https://doi.org/10.2307/3587260

Dörnyei, S. (2007). *Research methods in applied linguistics quantitative, qualitative and mixed methodologies*. Oxford.

Duff, P. (2012). How to carry out case study research. In A. Mackey & S. Gass (Eds.), *Research methods in second language acquisition: A practical guide* (pp. 95-116). Wiley – Blackwell.

Ellis, R. (2006). Current issues in the teaching of grammar: An SLA perspective. *TESOL Quarterly*, *40*(1), 83-107. https://onlinelibrary.wiley.com/doi/pdf/10.2307/40264512?casa_token=ydWxm7jUfpsAAAAA:o6AB8JM6ujNTmMhXaK-uAgH16bDDhtod4Z3BruvXcd9FxuDwZo8V9qoZfuev9Cs2ugCCke9-xdhfve3Z.

Ellis, R. (2015). *Understanding second language acquisition* (2nd edition). Oxford.

Friedman, D. (2012). How to collect and analyze qualitative data. In A. Mackey & S. Gass (Eds.), *Research methods in second language acquisition: A practical guide* (pp. 180-200). Wiley-Blackwell.

Haight, C. E., Herron, C., & Cole, S. P. (2007). The effects of deductive and guided inductive instructional approaches on the learning of grammar in the elementary foreign language college classroom. *Foreign Language Annals*, *40*(2), 288-310. https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1944-9720.2007.tb03202.x?casa_token=-uaM7WE8y8YAAAAA:BGxXN1sjDchb9eLOuL9c_Puw5mYtx_8r3d1TCxbnfdxWjSgkKoB_L2hnlypETz1rIBWyn1wtMFONK2j2.

_____

Huertas-Abril, C., Palacios-Hidalgo, F., & Gómez-Parra, M. (2021). Designing materials for emergency remote language teaching contexts: A qualitative study of pre-service teachers' experiences. *TESL-EJ, 25*(2), 1-18. https://files.eric.ed.gov/fulltext/EJ1314677.pdf.

Pazaver, A., & Wang, H. (2009). Asian students' perceptions of grammar teaching in the ESL classroom. *The International Journal of Language Society and Culture*, 27(4), 27-35.

https://d1wqtxts1xzle7.cloudfront.net/34130660/27-4-libre.pdf?1404658487=&response-content-disposition=inline%3B+filename%3DThe_International_Journal_of_Language_So.pdf&Expires=1670650649&Signature=LccP36TF7fof~dX71GvtQrO61NhRVQNUB-c~rs9BkA5DKHTvZW5Au0efwpk1F8q-qeRE7wRyuNszKimPGonjEM1sxrdFtNtgO~wWbcwBnLyOSwyr6yKSSRiCTAQybfqN7jyGczTFScBa7oAapLV3Z0udovp4hvaOJCVc5HKXUd~JFjNc8rhlraq72rvtGL9d6CFMr2uuBvdyJ8z5R7lWz88sGXcvqrCjXRiMH0SnTohkavTwSOnaqjQfotcWmWf9GXjt5DBbkKc7XRJR3SXik4VmPsacegSYJqYvOgDZdFyQg1Sh~KBa2oMA2zo3qT4dkIchO4B4FRID6DRNZhA9jQ__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA.

Sarıçoban, A. (2005). Classroom management skills of the language teachers. *Journal of Language and Linguistic Studies*, *1*(1), 1-11. https://dergipark.org.tr/en/download/article-file/104641.

Sayer, P. (2015). A response to the sorry report on the state of the PNIEB and English language education in Mexican Public Schools. *MEXTESOL, 39*(4), 1-11. http://mextesol.net/journal/public/files/c10f01fdfa7161763ec78e63163405e3.pdf.

Silvia, A. (2004). Deductive and inductive grammar teaching. *Applied Linguistics*, *24*, 126-145. https://d1wqtxts1xzle7.cloudfront.net/35689957/Deductive_and_Inductive_Grammar_Teaching-libre-libre.pdf?1416729225=&response-content-disposition=inline%3B+filename%3DDeductive_and_Inductive_Grammar_Teaching.pdf&Expires=1670650857&Signature=aGKMcm4YiAbNQnzQD0X8RpGPVSy~CGP2~at1xcb2Kbx55-MzLuFQDbxz0GDSvOIRWLlfZmS2t-f2ur6BB4RarxKhPySCawVbgOgfI2UFcRCOwa99xM6K-LmSUcc8gpdhBNiBzeqKBcvK6gIp4icqR7kvryGTQuR2hTclZ9EVj6XzzAyQJZBzRI~Dh0ZPn79JLEXg3uitdPBq2D3z6IYaTJpdZgjS2bnngX8CGV3H0itGCxWsZKQrjWSZLRf~RwsglXuyE~dXdl3kzvffbjTrkuwsNx2eX8TO1VPS3XSQIbcliPxJNSN6ccE1KDAOJLmEV0zoyA0yk1E0ci4IpHERWw__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA.

Snape, D., & Spencer, L. (2003). The foundations of qualitative research. In J. Ritchie, & J. Lewis (Eds.), *Qualitative research practice a guide for social science students and researchers* (pp. 02-23). Sage.

Truscott, J. (1998). Noticing in second language acquisition: A critical review. *Second Language Research, 14(*2), 103-135. http://www.sdkrashen.com/content/articles/noticing_1998.pdf.

Warren, P. (2013). *Introducing psycholinguistics*. Cambridge University Press.

J. L. Castillo Gallardo – Mexican High School Students' Perceptions Regarding Inductive and ...

_____

COAS