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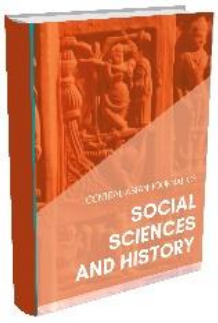

Effectivness of Using Inductive and Deductive Approach of Teaching English for Shcool and University Students

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Abstract:

The study investigates the comparative effectiveness of teaching English grammar by using deductive and inductive teaching models. The study alsoattempts to see which of these two methods has a positive effect on the grammar academic achievement of the university students and elementary school students in Uzbekistan so it answers the following questions:

- What is the effect of inductive method on grammar achievement compared with deductive method at university level?
- What is the effect of inductive method on grammar achievement compared with deductive method at elementary stage?

To answer the questions of the study, the researcher prepares two programs based on inductiveand deductive methods for each level based on its syllabus.The sample consists 180 students; eighty at the 1st year level in English departments at university level and one hundred at the elementary stage. The participants of the study consisted of four assigned sections.

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Introduction

According to Bastone (2014), grammar is multi-dimensional; it is a formal mechanism, a functional system fromsignaling meanings, or a dynamic resourcewhich both users and learners call on in differentways at different times.The main goal of grammar teaching is toenable learners toachieve linguisticcompetence; learners use grammar as atool or resource for comprehension, and creation of

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oral and written discourseefficiently, effectively, and appropriatelydependingonthe situation (Huang, 2015).

Teaching grammar plays acentral role in every English foreign language (EFL) teacher's classroom and has been thefocus of language teachers and learners for many years. Some people perceive it as essential to teaching any foreignlanguage whereas others view it as an impediment to second languageacquisition (SLA). Through his empirical study,(Ellis,2016)concludedthatgrammarteachingcanhelpstudentsenhanceboththeirlanguageproficiencies andaccuracy, facilitate the internalization of the syntactic system of the second and foreign language, and supply thedevelopment of fluency. In addition, grammar teaching can contribute to both acquired knowledgeas well as learnedknowledge.

Materials And Methods

The main aim of the present study is to find the comparative effectiveness of deductive and inductive methods on the academic achievement of the elementary school and university students.

The objective is splitin to the following sub-objectives:

- To find the effect of both models on the students' grammar academic achievement in schools.

To findtheeffectofbothmodelsontheuseoftherulesofgrammarbytheuniversitystudents.

Many researchers are interested in comparing theeffectiveness of deductiveand inductive methods in teaching EFL. Inthe present study, the researcher mentioned someof their studies that conducted at school level, whileothers wereconducted at universitylevel.

Studies related to School level

Aisha(2002)conductedastudytoinvestigatethecomparativeeffectivenessofteachingEnglishgrammar withthehelp of textbook (deductive method) and by using group work activities (inductive teaching model). The sample sizewas eighty (80) at the secondary and one hundred and twelve (112) at theelementary stage in Pakistan. The duration ofteaching was about one month with daily period of thirty-five minutes at each stage. Theexperimental group at eachstage was taught English grammar through group work activities by using the inductiveteaching model whereas thecontrol group was taught English grammar through textbook using deductive method (traditional method). At theend ofthe treatment period, relevant post-tests wereadministered to the students of both the groups at each stageand werescored. The main findings of the study were; theexperimental and control groups at both theelementary and secondarystage wereequivalent at the timeof starting theexperiment and the teaching of English grammar through group workactivities (inductiveapproach) played a positive role in improving theacademicachievement of the students studyingEnglishat theelementaryaswell asthe secondarystage.

Al- Emami (2005) carried out a study aimed at comparing theeffect of the inductiveand deductive ways ofteaching on learning relativeclauses in English Language. The sampleof the study consisted of 160 scientificandliterary maleand femalestudentswhowere divided into twogroups, the inductiveand deductive. This samplewasgiven a pre- test to find out if there was a statistically significant difference ($\alpha \leq 0$, 05) between the means of students'achievement marks. After conducting theexperiment, a post-test was given to the students in both groups; resultsindicated a statistically significant difference ($\alpha \leq 0$, 05) between students` achievement on relativeclauses according toway of instruction, sex and stream

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of study. Concerning the first question of this study which addresses if thereareanystatistically significant differences (α≤0, 05) in the students` achievement according to ways of instruction, results showasignificant difference in favoroftheinductivewayofteaching.

The sampleof the study was randomly chosen from EFL learners at universities and schools. They weredivided into four experimental groups. The first and second groups learn grammar at university level (deductiveandinductive methods) by the two instructors (specialized in TEFL&curricula); the third and fourth groups learn grammarby using inductiveand deductive methods in schools by English teachers. Duration of teaching university students isabout one month with weekly period of fiveclasses of an hour at each class, twenty lessons for thetwoclasses butdurationofteachingschoolstudentsisaboutonemonth withdailyperiodofforty-fiveminutesatelementarystage.

ToachievetheaimsofthestudytheresearcherdesignthefollowingInstruments:

- A grammar achievement test for university students(as pre-post test& post-test) and a testforelementaryschool students(aspre-post test&post-test)
- Inductiveinstructionalprogrambasedonthesyllabusofeachlevelanddeductiveinstructional programbasedonthesyllabusofeachlevel.

Results And Discussion

For the purpose of the study two grammar achievement tests were used. Forty-item test were prepared for each level bythe researcher tocover the Grammar at university and school levels. The general purposeof these instruments was tocomparetheachievementsofthe fourgroupsonthe preand posttests.

The test of both levels measures the students' ability to:

1. Recognize the rules oftenses.
2. Recognize subject-verbagreement.
3. Make yes/no questions.
4. Make WH questions.
5. Make or form negative form.

There searcher designed to table so specifications for both tests (for university and school students) that show the distribution of questions among content and objectives.

This study was conducted during the second semester of the academic year 2021 at university level and conducted during the 2nd semester of theacademic year 2021 at school level so it finished in June. The following procedures were followed for the purpose of the study:

1. Getting the approval of the selected universities and schools to conduct the study.
2. Drawingasampleofthe studyfromUzbekschoolsanduniversities.
3. Preparing the inductiveand deductive programs which were taught to theexperimental group andensuringitsvalidity.
4. Constructingthepre-/post-testandensuringitsvalidityandreliability.
5. Two instructors (almost similar in respect of educational qualifications, age, training,

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teachingexperienceat university level, socio-economic status) are selected; one instructor assigned to the1stexperimental and one tothe2ndexperimental group.

6. Administrating pre-test to the four groups of the study to measure their grammar beforeapplyingtheprograms.
7. Trainingthevolunteerinstructorsandteachersinimplementingtheprogramsbytheresearcher.
8. conductingtheexperimentandvisitingtheexperimentalgroupsregularlytohelpthem overcomeanydifficultiesor problemsthatmayappear duringtheimplementationofthe program,
9. Post-testingthegroupstomeasuretheirgrammar.
10. Analyzingtheobtaineddata.

Firstly, to make sure that both group saree quivalent, thepre-testbetweenthetwogroupsofuniversitystagewascomputed asshowninTable 1.

Table1. ResultsofT-testonthegrammarachievementonthePre-test betweentheTwoGroupsofUniversityStage

	Method	N	Mean	Std. Deviation	T	Df	Sig. (2-tailed)
PRE	Inductive	21	30.24	10.990	.189	40	.851
	Deductive	21	29.62	10.244			

As can be seen from Table 1, theexperimental group's mean scoreon pre-test was slightly similar to thecontrol group'smean scoreon the same test (30.24; 29.62) respectively. It indicates that the T valueof grammar was.189. Thus, it is notstatisticallysignificant at (α≤0,09)andbothgroupsareequivalent.

To test the significanceof these differences between the mean scores of both groups on the reading comprehension inthepost-test, the Tteststatistical procedurewascomputed asshowninTable 2.

Table 2. Results of T-test on the Grammar Achievement on the Post-test between the Two Groups of the University Stage

	Method	N	Mean	Std. Deviation	T	Df	Sig. (2-tailed)
POST	Inductive	21	37.38	10.230	2.034	40	.049
	Deductive	21	31.48	8.507			

Table 2 indicates that the T valueof grammar was 2.034. It is statistically significant at (α≤0, 09). Thus, the nullhypothesis which stated that there is no statistically significant differenceat (α≤0, 09) in the mean scores of grammarbetween the two groups was rejected. The mean scores of the grammar post-test shown in table 2 indicate that the meanscores of theexperimental group were higher than the mean scores of thecontrol, where the mean scoreof theexperimentalgroupwas37.38, whilethemeanscoresofthecontrol groupwas31.48.

The pre-test between the two groups of school stage was computed to show that both groups

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areequivalent as shown inTable3.

Table3. Results of T-test on the Grammar Achievement on the Pre-test between the Two Groups of School Stage

	Method	N	Mean	Std. Deviation	T	Df	Sig. (2-tailed)
PRE	Inductive	20	29.55	9.654	-.328	38	.744
	Deductive	20	30.60	10.545			

As can be seen from Table 3, theexperimental group's mean scoreon pre-test was slightly similar to thecontrol group'smean scoreon the same test (30.24; 29.62) respectively. It indicates that the T valueof grammar was -.328. Thus, it isnotstatisticallysignificant at(α≤0,09)andbothgroupsareequivalent.

According to the second question, which addresses if thereareany statistically significant differences (α≤0, 09) in theuniversity students` achievement according to ways of instruction, results also show a significant difference in favor ofthe inductive way of teaching. This result is expected becauseof thecharacteristics of inductive method whereallstudentsliketolearngrammarthroughcommunicatingandpracticingstructuressotheydonotneedtospeakgrammatically correctsentencestocommunicatewell. Also, ininductivemethod, theteacherProvidesasmanyexamples as possible in teaching structures soeliciting the grammatical rules from examples, make students improvingtheir grammatical accuracy.

The result of the first question is consistent with Takimoto (2015), who proves experimentally that the difference instudents' score is in favor of the inductive way of teaching when combined with problem-solving tasks or structuredinputtasks.ItisalsoconsistentwithVogeletal. (2011)who seresultsindicateasignificantlygreatereffectoftheguidedinductiveapproach on short-term learning. On theother hand, the result of (Haight and et al., 2017) shows that theguidedinductivemethodhad statisticallysignificanteffects onthelong-termlearningofgrammaticalstructures.

Concerning the first question of this study which addresses if thereareany statistically significant differences (α≤0, 09)in the school students` achievement according toways of instruction, resultsshow a significant difference in favoroftheinductive way of teaching. This result can be explained through the fact that the Ministry of Education has recently held many training courses for English language teachers in order toacquaint them with up - to - dateor contemporarymethods of teaching English language. I think that these training courses havec hanged the atmosphere of the class to become more suitable for students to induce the grammatical rules from relevant activities and exercises. Also, theteachers understand the instructions and strategies given in the "Teacher's Book" that based on inductive method so theymakestudentsinferthe rulesfromthe givenexamples.

The result of the second question is consistent with Al- Emami (2015) who proves experimentally that the difference instudents' score is in favor of the inductive way of teaching. It is alsoconsistent with Aisha (2012) whose results showtheefficiencyoftheinductivemethod inteachingEnglishgrammar to non-nativespeakers.

Conclusion

Theexpectedfindings of the study indicate that theexperimental groups at bothprimary and university stages areequivalent at the timeof starting theexperiment and the teaching of English grammar through

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inductiveapproach playsa positive role in improving theacademicachievement of the students studyingEnglish grammar in both levels(universityandelementary).

- It is necessary for teachers to vary their techniques and ways of teaching according to their students' interestsandachievementlevelswith moreemphasisonusingtheinductive wayofteachinggrammar.
- TeachersandinstructorsareencouragedtoattenddifferentintensivetrainingcoursesheldbytheMinistryof

Educationinordertobeawareofvariousmodernwaysofteaching Englishlanguage.Theyarealsoencouraged toapply modern ways of teaching in their classes since this is oneof theaims of theEducationalReformforKnowledgeEconomy.

Researchers should conduct other studies in other regions and on other areas on syntax in order toobtain amorecomprehensiveideaaboutwhich wayofteachingismoreinfluentialinteachinggrammarinUzbekistan.

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