



The Approach of Educational Science and Linguistics in Improving Discussion and Debate Skills of Students

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Abstract: The aim of this research is to analysis the effects of bridging the educational science strategies with the linguistic competence and the way the students of the Makassar State University are position in a discussion and debate context. The study fills the gap in the literature since it focuses on nonnative English speakers, who experience different challenges in the scope of academic debates. The evaluation of active learning methods, including peer feedback, collaborative discussions, and structured activities focused on both emergent language skills and debate performance; therefore a quantitative approach was used. The information was collected through questionnaires and tests which were administered on 100 students who benefited in the educational program. This research demonstrated increases in students' language proficiency, argument formulation, and reasoning abilities which signify that semantics in education helps in the nourishment of the commodity of knowledge. As a result, this research darkly fills the gap in the literature which was evident when educational science was supplemented by the development of language not only to enhance the students' ability to conduct debates but also to enhance academic achievement. The implication that can be derived from the findings provides guidance to educators in their efforts to foster critical communicate in students especially those who are non-native English speakers.

Keywords: Educational Science, Linguistic Competence, Debate Skills, Active Learning, Non-Native English Speakers.

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1. Introduction

Communications skills with special reference to discourse with others is a very crucial skill in every university student since it help in developing critical thinking, communication, and also argumentation skills. Discussion and debate skills assume importance in Higher Education since students are required to distinguish, integrate, and evaluate information and develop well-articulated opinions. But in order to build these skills one needs an effective program in education that addresses the issue on how to teach and what language to implement. Makassar State University has recently initiated attempts to enhance communicative competence of the students by utilizing teaching and learning strategies from educational science and linguistics which are found to be the fields helpful for understanding of the pedagogical technique for communication [1].

Teacher education science as a branch of knowledge that is concerned on the formation of teachers and teaching learning processes contributes to cultivation of the students' discussion and debates. The concept active learning is a principle of educational science, where the student is stimulated to perform tasks that help the student in critical thinking and problem solving that is very useful in seminars and debates [2]. When it comes to the concept of active learning which embraces group discussions, role-play and debates in particular [3] proved its efficiency with reference to the level of students' engagement and the processes occurring in their cognition. These strategies promote student centered learning rather than teacher centered learning where the students are not just listeners but builders of knowledge. they foster first class communication skills, where students learn how to argue for their viewpoints, strengthen their cases; and

how to answer all questions raised against the arguments presented to them [4].

Linguistics on the other hand offers the technicality in analyzing and enhancing the skills in communication; especially for the principles of argumentation and discourse [5]. Fluency, which deals with the mastery of language to fit the purpose of use is a basic element of linguistic competence that enables the students to present their ideas in the right manner and in the right forum basing on the features provided by [6]. In the process of debating and discussing with their peers, students should not only be able to demonstrate their good command of language, but also some knowledge about the process of discoursing such as how to build their arguments, how to use the language persuasively and, more importantly, how to react on the arguments of the opponents [7]. Research has revealed that increases in language skills significantly reinforce the students' performance in debate as it helps to develop their skills in constructing well thought out debates and fluid conversations.

The developments that have been witnessed at Makassar State University have been characterized by increased awareness of the need to increase student's ability to discuss in advanced educational science and linguistics. Of major significance in this integration is the fact that Indonesian students learn English as the second language and thus the general learning goal is to foster linguistic proficiency alongside critical thinking skills at once [8]. Previous research has shown that Indonesian students' perceived courses was authoritative in presenting their opinions and view and it was proved by frequencies of social interactions and participation of students in discussion and debates in English might remain low due to lack of language proficiency and self-confidence [9]. Hence, when addressing these deficits and improving the students' global communication skills, one has to use educational approaches along with language development techniques.

Thus, the problem of stepping up the levels of discussion and debating skills is not only relevant to academic achievements. These are also important for students' future careers because they will enable the students to be effective in their work especially team work, leadership and decision making in organizations. In today's world, where most of the interpersonal interaction takes place across cultures and languages, being able to conduct meaningful discourse thus prepares the students to face the emerging challenges in the workplace. Employers have been known to note the high value in communication especially the ability to communicate thoughts and ideas, engage in negotiations and work in a team to come up with solutions to problems. Universities have a role of preparing the students for these skills to enable them not only to perform well in their studies but also to succeed in their future workplaces. A major issue facing this case is a conventional lecturing approach to the teaching and learning process in many learning institutions including the Makassar State University, which suffocates the growth of discussion and debate skills among students. Naturally, lectures are useful for conveying content, but the content does not allow the students to practice or apply the content and enhance their critical thinking as well as their communication skills [10]. This is where educational science could be of help since it supports more student-orientated and activity based learning approaches. Incorporation of active learning techniques like think-pair-share, using cases and debates enables educators design a learning environment that enhances critical thinking of the students, peer cooperation and enhanced development of interpersonal communication skills. Language also has an important influence on this process as well as linguistics that offer the necessary means to participate in meaningful communication to students. Besides enhancing their communicative skills and extending their vocabulary, the learners have to enhance their pragmatic awareness which means, among other things, knowledge about how people use language properly or differently depending on culture and social context. This matters equally in written scripts where in constructing their case, students are not only required to employ logical conjunctions, but also to formulate replies to opposing arguments and appeals by adopting direct 'you' address to the intended audiences. According to observations made by different authors, students achieving higher results in debates have higher pragmatic competence for they can handle problems of social interaction and use language efficiently to attain interpersonal goals [11].

2. Methodology

The research method used in this study was quantitative research since the research was aiming at determining the link between educational science, linguistics and development of students' debate and discussion skills at Makassar State University. The correlational method of analysis was employed in order to determine the degree of relationship between language proficiency and performance in debates. That is why, an experimental component was added to investigate the effectiveness of educational science

strategies in developing these skills in context with the time factor.

The target Population for this study was the undergraduate students of Makassar State University. Purposive sampling method was used in a way that a sample of 150 students was adopted from diverse fields of study. These students had learnt through some courses or programs which were in some way, shape or form, pertaining to communication, debate, or linguistics. This was after considering the fact that more respondents in a study provide a better statistical validity or the actual analysis of the data being collected.

Two primary instruments were used to collect data: Self-completion, structured questionnaires were also used in order to capture the students' perceived competencies in discussing and arguing. The questionnaire also comprised of the Likert scale questions on the students' self-efficiency in debates, self-efficacy to voice arguments and assumed language proficiency.

To make the evaluation of the students' language ability as accurate as possible, a linguistic competency test was carried out. This test assess their comprehension and composition of good arguments, proper use of good English and their general analytical skills during debates. A checklist was to filled in during real practice sessions, during observed debate sessions, to assess the students' real performance. Expert supervisors to whom communication and debate knowing predetermined students' performance schemes, assessed them by the clarity of arguments, evidence presented, response to counterarguments, and presentations. Then an educational intervention was delivered in eight weeks. Subjects in the experimental group conducted debates which also involved usage of activities like role play, group discussion and peer review. In the approaches used in educational science, the main focus was made on the learners and their interactions, and especially on their critical thinking skills as well as collaborative discussions. All these methods were developed to enhance not only the linguistic proficiency, but also the argumentation skills.

The data collected were analyzed using Statistical software to test the hypothesis. This paper also extracted the mean scores and standard deviations so as to present the general picture of the students' initial competencies. Inferential statistical techniques were then applied to test the study's hypotheses: was used to make a correlation between the students' linguistic abilities and their performance during the debate sessions. This enabled a determination to be made in regards to the statistical relationship between language and success in debates. was independently used in order conduct a pre and post hermeneutic analysis in order to ascertain the effectiveness of the intervention. It was useful for evaluating effects of educational science techniques on the further improvement of debate skills. was used to estimate the degree of effectiveness of the educational methods and language proficiency for enhancing students debate performance.

Since the intention was to ensure validity and reliability of the instruments used, which are the questionnaires and the linguistic competency test, they were pre-administered on some students who were not part of the sample. The scores of the pilot test was used to fine-tune the instruments in order to demonstrate reliability in the assessment of the underlying constructs. Descriptive analytical tools were used to examine the responses to the survey items where the internal consistency reliability coefficient, namely the Cronbach's alpha coefficient, was computed and the minimum accepted level of 0 was used as the criterion. 7 set as acceptable for reliability dependability.

3. Discussion

Because there is a lack of research on the effects of Educational Science strategies and Linguistic Competence on non-native English-speaking students' discussions and debates, this work examines how these concepts can enhance discussion and debate abilities for students at Makassar State University. Although prior Research has emphasized on language skills in disputes, few efforts have been made to study how intervention in Education might improve these abilities in second Language learners. As this study puts in practice the active teaching methods like peer feedback and collaborative discussions it is proved that the educational paradigm also raises the students' performance during the debates as well as increases their command over the language. The aspects found by the study are useful for understanding the ways of young people's education and development of linguistic and critical thinking skills in academic context.

Table 1. Descriptive Statistics for Linguistic Competence and Debate Performance (Pre- and Post- Intervention)

Variable	Mean	Standard Deviation
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Linguistic Competence (Pre)	62.5	8.4
Linguistic Competence (Post)	78.3	6.7
Debate Performance (Pre)	64.2	7.5
Debate Performance (Post)	80.1	5.9

This table shows the mean and standard deviation for both linguistic competence and debate performance before and after the educational intervention. The data reveal a significant increase in both variables post-intervention, suggesting that the intervention had a positive impact on students' linguistic and debate abilities.

Table 2. Pearson Correlation Between Linguistic Competence and Debate Performance (Pre- and Post-Intervention)

Variable	Correlation Coefficient	P-Value
Linguistic Competence & Debate Performance (Pre)	0.54	0.001
Linguistic Competence & Debate Performance (Post)	0.67	0.001

This table presents the Pearson correlation results, illustrating the relationship between linguistic competence and debate performance both before and after the intervention. The pre-intervention correlation coefficient of 0.54 indicates a moderate positive relationship, while the post-intervention correlation of 0.67 indicates a stronger positive association after the educational strategies were applied.

Table 3. ANOVA Results for Debate Performance and Linguistic Competence (Pre- and Post-Intervention)

Variable	F-Value	P-Value
Debate Performance (Pre vs. Post)	23.8	0.001
Linguistic Competence (Pre vs. Post)	18.4	0.001

This table shows the results of the ANOVA test, which was used to compare the pre- and post-intervention scores for both debate performance and linguistic competence. The F-values for both variables are statistically significant, indicating that the intervention resulted in significant improvements in students' performance in both areas.

Table 4. Regression Analysis Predicting Debate Performance from Linguistic Competence and Educational Science Strategies

Predictor Variable	R ²	β	P-Value
Linguistic Competence	0.52	0.45	0.001
Educational Science Strategies	0.52	0.58	0.001

This table summarizes the results of the regression analysis, where debate performance was the dependent variable and linguistic competence along with educational strategies were the predictor variables. The R² value of 0.52 indicates that 52% of the variance in debate performance can be explained by these two variables. Educational science strategies ($\beta = 0.58$) were found to be a stronger predictor of debate performance improvement compared to linguistic competence ($\beta = 0.45$).

This work has sought to establish how educational science and linguistics could be used to improve on discussion and debate skills of students in Makassar State University. Thus, the choice of correlational and experimental research design allowed making significant contribution to understanding the relationship between the linguistic competence as well as implementation of person- and content-specific educational interventions to support critical thinking and communication in academic settings. The findings helped fill the gaps in the existing literature by presenting data on the correlation between the linguistic ability and debating performance and indicating the efficiency of the strategies belonging to educational science in increasing these abilities. From the results it was agreed that there was an improvement in the linguistic competence of the students after the interventional program whose means increased from 62. 5 to 78. 3. This corroborates earlier findings which have stressed language abilities as salient factors of academic writing and argumentation [12]. But this study extends the existing literature base in that a clearly defined set of educational science strategies can be shown to yield improvements when targeted toward improving communications and language skills. This research provides an insight to the existing knowledge because only limited research has been conducted that established the correlation between educationalinterference in Linguistic competence and improved performance in debates among non- native English speaking population of Indonesia. Although prior work like [13] has explored language use in debate, this line of research has mostly been conducted in native English-speaking participants and therefore does not well explain how second language learners develop such skills.

Other learning approaches including student activity approach, peer assessment, and group discussions were established to improve the language mastery of the students as skills in educational science. These results support views of constructivism where according to [14], students achieve better when they are involved and are part of a group. In addition, the present findings indicate that the enhancement of language is not a personal endeavor, but rather can be enhanced substantially by instructional programs that are based on interaction and engagement. This points to the need for educational innovation in language teaching especially in contexts where argumentation and talk is important in the developmental process of learner.

Pearson correlation coefficients showed a positive and moderate correlation between linguistic ability and debate performance before intervention ($r = 0.54$, $p = 0.00$) which as expected elevated to a higher level after the intervention ($r = 0.67$, $p = 0.00$). This finding also supports previous research, which established linguistic proficiency as a significant predictors of argumentation skills [15]. The result also points to the general improvement of language skills with better educational strategies thus resulting in better debating skills. Most citation on linguistic proficiency has been done concerning different types of communication, but few have been done concerning structured academic debate. The moderate correlation before the interventional study implies that apart from language ability, self-confidence, problem-solving abilities, and reasoning as well as argumentation skills all contribute to debate performance. However, it is clearly seen that after the intervention there is stronger positive correlation between linguistic and debate skills which explains how educational intercession can enhance the relationship between study and performance skills. As students' self-confidence in their L2 proficiency increases, students are also able to develop arguments, consider opposing views and argue for their own points. This is supported by previous studies like the fact that language proficiency improves the confidence of students especially in speaking, critical thinking and other related activities. Therefore, while contributing to this body of literature the current study depicts how these skills evolve in a structured educational setting designed for the improvement of debate performance.

During the ANOVA test, the performance of the students in debate after the interventional methods were implemented also significant and improved ($F = 23.8$, $p = 0.001$) and evidence the value of the educational science strategies done in the study. This finding serves to fill a current gap in the written work the effective application of educational theories in fostering skills in debate and discussion. Even though the role of active learning is frequently emphasized in educational literature, relatively few investigations have investigated its effects on debate performance in a university context, by using empirical measures [16]. Thus, this study contributes a new perspective to the discussion about the educational science as well as raising skills in communication in the framework of both the theory and practice.

Technique like role play, peers evaluation and mutual problem solving exercises were of most usefulness in creating an atmosphere where the students could rehearse the actual skills of debate. These strategies are relevant with literature review on how practice based learning promotes the development of critical thinking and expression skills as postulated by [17]. More to the point, this emphasis on feedback in this study corresponded with [18] assertion that feedback is important for the growth of the student in terms of academic and communication skills as it should be timely and constructive. Using the positive outcomes in this study one can deduce that the integration of the above mentioned strategies into university programmes could be a useful tool in the desire to foster good debate and discussion amongst students.

In terms of the results of the regression analysis it is stated that educational science strategies ($\beta = 0.58$) were more efficient in explaining the improvement rate of debate performance than linguistic competence ($\beta = 0.45$). It is a revelation that lends a clear appreciation to the part played by highly structured, special education to improvement in debate skills, not exclusive of language mastery only. Contrary to prior studies that have taken language skills as the key determinant of ranking in debate the present study implies that educational procedures meant to improve thinking abilities and interest are even more vital.

These findings demonstrated that the regression model was satisfactory in accounting for 52% of the variance in debate performance; therefore, educational science strategies in combination with linguistic competence can improve students' abilities of performing the structured debate. This result is a bit odd, as prior works have attributed a more significant proportion to the linguistic skills solely. Even though language skills can play a significant role, this work enforces that even with a better language capability, without the proper pedagogy for learning the basics of debate, and for making the learners develop critical

thinking skills there is little that most would be debaters can look forward to improving.

In this research, the following areas have been filled by presenting empirical information regarding linguistic competence, educational science strategies, and debate performance especially in low magnitude non-native English-speaking countries. Previous research has provided information on either native English speaking students only or theoretical framework approaches to debate instruction, so this study brings a real-world empirical view of how educational treatments can be applied to enhance language development and also positive debate instruction. This study also contributes to the existing knowledge by concentrating on Indonesian context and provides the way to intervene debate skills in the learners to learn English as the second language, which may be useful in comparable educational settings globally.

4. Conclusions

This study focuses on a need to apply and combine the principles of educational science and language proficiency to enhance arguing abilities of non p Graduate School students at Makassar State University. They prove that adopting peer feedback and collaborative discussions in a learning process accelerates the development of the students language skills and the quality of their debates. In doing so, this research fills important gaps in the literature, especially in non-native English setting and sheds lights into how structured educational programs can create the necessary opportunities for the development of critical thinking and communicative competencies. Based on the obtained findings it can be stated that the use of educational science in combination with language development is effective in the improvement of the academic debate functions in higher learning institutions.

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