

Role of Scaffolding in Bandwidth of Learning: A Gendered Perspective

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Abstract

Following Vygotskian concept of socio-cognitive developmental theory, the current study analyses the role of scaffolding in learning English grammatical skills in an L2 scenario with a critical eye on the gender of the students. Two sections of class 8th all-female students & all male students in Inter College Islamabad, Pakistan- have been selected to determine the gender sensitivity of ZPD and scaffolding in language learning skills. The study was experimental in its nature. Pre and post test was conducted. Descriptive and inferential statistics such as mean, standard deviation and T-value were used. The result of the post-test indicated that female students almost gained the double of male students after being provided with appropriate language scaffolding.

Keywords: ZPD, Scaffolding, grammar, gender

Introduction

The creation of a child and his physical, communicative, and cognitive development in his formative years is a miracle in itself. In his quest to unveil the mystery, the man delved deeper in unfathomable zones of life and unlocked the hitherto locked secrets with his inquisitive skills. The history remembers such diverse individuals as great philosophers, psychologists, biologists, linguists, educationists and the like. These prudent people started closely observing the pre and post natal development of a child, his reaction with the environment, his interaction with his surroundings, his acquiring of language, his learning of new skills, his discovery of problem-solving abilities, and his skills of adapting to novel situations and moving ahead despite unpredictable challenges. Every researcher interpreted this phenomenon in his /her own way as some made an LAD responsible for it while others considered child's learning to be an outcome of adults' imitation or a result of social interaction. Lev Vygotsky (1896–1934) – a Russian psychologist— is one among those who consider that a child is born with certain "natural unlearned capacities" (Bentham, 2002, p.10) which are evolved into complex mental functions, such as thinking and problem solving. All this is made possible with the help of language that is learned through social interaction and is later used in acquiring knowledge from experienced adults much like an apprentice (p.10). Since its translation into English in the 1960s, his theoretical concept has become influential and inspiring for other researchers working in the field of psychology in general and in linguistics and education in particular. They not only took lead from Vygotsky's cognitive development theory but also applied it in various other contexts to testify its universality.

It is with the same intent that the researcher wanted to examine the theoretical assumptions of Vygotsky's cognitive development theory in the field of education, particularly in L2 acquisition framework. In L2 learning, accuracy and correctness have always been the main concern for the teachers involved in improving grammatical competence of the learners. With such aim in mind, syntactic structure of target language and its acquisition is considered important in teaching-learning domain. For the purpose, Pakistani students (both male & female) studying in Inter College, Islamabad have been selected in order to assess their grammar comprehension skills/ strategies in the light of aforementioned theoretical framework. This study will help the teachers teaching English language to Pakistani students in applying collaborative scaffolding strategies for students' grammar related linguistic development, keeping in mind their own role as a mediator. Inter alia, it will provide substantial evidence for language learning in ZPD to be either gender-sensitive or gender-insensitive.

LITERATURE REVIEW

Axford, Harders & Wise (2009) illustrated the concept of scaffolding with the help of an example of children learning to ride a bicycle through their interaction with more skilled peers or adults. The competent performer gives verbal instructions, models the requisite performance, explains, encourages, and provides physical support through the 'learning by doing' strategies. The learner then tries initially with the "other person supporting the bicycle by running along beside" (p.7) and gradually withdrawing this support when the learner is observed mastering the task. A similar concept of scaffolding is utilized by the researchers working in the domain of ZPD and L2 development.

Following Vygotsky's theoretical framework, Donato (1994) conducted the formative investigation considering the role of scaffolding in the field of L2 development. He made use of Activity Theory which combines



the issues of "individual development, activity, and the social context" (p.36) and related it to Vygotskian concept of social interaction by virtue of which an experienced "individual is often observed to guide, support, and shape actions of novice who, in turn internalizes the expert's strategic processes" (p.37). He however went a step ahead and illustrated the concept of collective scaffolding i.e. how learners themselves scaffold and "co-construct language learning experiences in the classroom setting" (p.39) by providing the requisite support and assistance to each other that an experienced provides to a novice. He examined the scaffolding strategies of three French students studying in American university and found that the learners were able to co-construct a scaffold for themselves by jointly managing components of the problem, marking critical features of discrepancies between the ideal and the so far produced solution, minimizing frustration and risk by utilizing collective resources available in the group (p.45). Hence he concluded that learners themselves "are capable of providing guided support to their peers during collaborative L2 interaction in ways analogous to expert scaffolding" and that the "collective scaffolding may result in linguistic development in the individual learner" (p. 51) when he is navigating in ZPD.

Dixon (1983) has dealt with the phenomenon of scaffolding in ZPD through reading comprehension. She treated ZPD as "indicative of the child's "emerging" mental functions" (p.4) and employed difficult reading tasks i.e. passages above the measured actual developmental level in order to unveil the student's "emerging level of cognitive functioning" (p.5). The scaffolding was provided in the form of adult mediation for discussion and explanation of unfamiliar words and concepts and collaborative peer learning. Two experimental groups of 27 third graders and 27 sixth graders were chosen as subject for research and given pre-tests in the form of cloze test passages which were two readability levels above each group's present placement. Their scores were compared with corresponding control groups. In second session adult mediation was provided to the experimental groups in the form of "a continuous cycle of adult oral/visual presentation—student feedback—adult oral/visual clarification" (p.9) which was repeat for each concept presented in the reading passage. After a gap of ten minutes the post tests were conducted for experimental and control groups. The results were statistically generated and yielded no significant differences in pretest scores of experimental and control groups; however their post-test results revealed a significant difference. The difference of achievement—a 9% increase—"indicates that the experimental groups were operating within their zone of proximal development two levels upward from their instructional reading levels" (p.11) and signifies existence of a level of potential development.

Following Vygotskian concept of ZPD, Kariuki & Replogle (2002) conducted a research on effects of independent reading on reading ability by choosing randomly selected 21 students who take out 20 minutes daily for reading a book of their choice in school. After 12 weeks they, along with 22 other children who were not regular readers, were administered a standardized reading test conducted online. Their scores for ZPD and grade equivalent were analyzed and compared; however, no significant difference in scores was observed. Nevertheless, this research directed the interest of researcher towards gender achievements in the field of language acquisition as it highlighted a significant difference in the reading achievements as females scored higher than the males in the group (p.19).

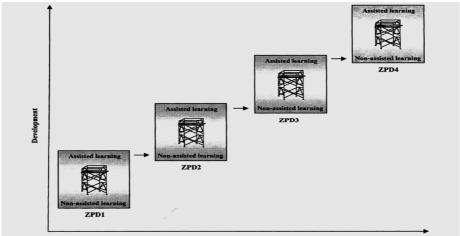
Attarzadeh (2011) holds that Scaffolding refers to the "dialogic process by which one speaker assists another in performing a function that he or she cannot perform alone" (p.5). His study aimed at revealing the role of scaffolded interaction in enhancing reading comprehension of different genre in Iranian EFL learners having different proficiency levels. For the purpose the 180 participants were randomly chosen among the EFL learners enrolled in two institutes. They were equally divided into three groups of low, mid and high proficiency depending upon their performance in TOEFL language proficiency test. Later they were divided into three homogeneous classes of 30 each for experimental group as well as for control group. In fourteen consecutive sessions they were exposed to 60 different types of reading texts which were narrative, argumentative, descriptive, and explanatory in nature. After combined pre- reading activities, the experimental group was given assistance in while-reading and post reading activities with extensive involvement of the researcher who employed various reading strategies-depending upon the text type- in due course of time. The research concludes with a post-test for both the groups. The analysis of the result was threefold: it revealed that scaffolded group outperformed the non-scaffolded one; "narrative genre was more sensitive to scaffolding" (p.21); and midlevel of learners performed well with scaffolded narrative texts.

During another research funded by Swedish Research Council and conducted at low-SES (socio-economic status) Stockholm area, Damber (2011) gained insights into the collaborative role of teachers in making their students good readers despite students' belonging to different socio-economic status. The analysis employed the Vygotskian concept of ZPD along with Bernstein's Code theory and was based on the assumption that "More advanced peers, teachers and scaffolding structures mobilize learners to exceed their individual limits of achievement, and thus, facilitating learning both at individual and social level" (p.89). In a previous research analyzing 1092 classes for their reading proficiency, 94 classes were found overachieving (OA) i.e the students performed well above (85 percentile) of the expected mean reading performance. In the present study 08 randomly selected OA classes were compared with 100 underachieving (UA) classes on the number of books in home, parents 'education, family income, class characteristics and teachers' characteristics. It was found that in these



areas there was no significant difference as far as OA and UA classes were concerned except for two methods of classroom characteristics: (a) students' perceptions of positive peer relations and (b) the teachers' perceptions of their students to meet possible challenges in the classroom (p.94). In- depth students' and teachers' interview further revealed that in OA classes, irrespective of language level, every child is included in the reading activity as after reading a book a student could express it in his words either orally or by writing, or drawing an illustration or dramatizing it along with other students (p.96). The availability of reading materials, peer interaction, multiple activities, and teacher's input "supported learning experiences in the ZPD" (p.96) helped "the students develop their reading skills within the realm of their own ZPD" (p.97) with a belief that what is unachievable today can be achieved tomorrow.

Defining ZPD and scaffolding, Masters (2013) elaborates their utility for the students undergoing teacher education programme. During the course of their training workshop, these students were required to work with software PebblePad to create their eportfolios and to save their tasks/assignments in it thereon. This integration of software project received negative feedback from the students as they found it complicated, challenging, confusing and useless as no systematic teaching was being carried out related to the subject. In 2010 the strategy was changed to interact with and around PebblePad (P.6). The students were sent link to a PebblePad and advised to make PebblePad assets right from their second week. In week 5 workshop session "we systematically stepped through the process of building the web folio structure with the whole class" (p.7) received encouraging comments by the users. As compared to the previous years, in 2011 the implementation was successful because the included activities were designed keeping in mind the phenomenon of scaffolding. The students were encouraged to complete small challenges to make them comfortable with the Pebble Pad environment and once they started working on the task "they were facilitated, rather than scaffolded" (p.8) via teaching strategies to complete the task. As a result some of the students performed to the extent that "quite likely crossed their ZPD to the extent where scaffolding can be withdrawn" (p.8) and the students are self-regulated to use eportfolios for their own purpose.



Time

Schweiter (2010) examined the development of second language writing through scaffolding writing techniques during a semester long assignment of creating a professional magazine. 22 Spanish college students were tasked to author essays on different genres and were additionally responsible to work as editors/ co-editors related to different domains of magazines. Their essays were reviewed by the peers and instructors of the authors and went through 04 planes of evaluation and corresponding feedback to improve upon. The statistical analysis related to each stage revealed a gradual improvement in the contents and style of the essays. The project and its success illustrated how provision of learning environment facilitates scaffolding writing through feedback and debriefing sessions. In other words, "the writing skills acquired from expert assistance in editorial stage 1(ZPD 1) became the foundation for what could be done without assistance in editorial stage 2 (ZPD 2)... and so on" (p.41). The same is schematically presented as following (p.33) by the researcher, Considering ZPD to be "a layer of skill or knowledge which is just above the level at which the learner is currently capable of independent performance" (p.5), Isavi (2012) introduced the concept of Dynamic Assessment whereby an access or interacts with the assesse in an attempt to determine his current level of performance and then provides him help and assistance to move to next level of performance. In fact the purpose of the study was to identify the effects of individual feedback and scaffolding on ascertaining the individual's ZPD and improving it. 15 EFL Iranian students were given a writing pretest and then provided with individual DA intervention or helped with thirteen step scaffolding for the error analysis and self-correction before their appearance in a retest of writing one-page composition (p.10). The analysis of the post-test composition showed a significant improvement in learners' writing style. However, the researcher



came with an additional conclusion that individual learners have different ZsPD which require the "mediator to fine-tune his support differently to different learners" (p.13).

Similarly, Naeini &Duvall (2012) conducted a research on the reading comprehension performance among undergraduate ELT university students by employing the mediation of DA in instruction and assessment. 10 participants underwent a reading pre-test which was followed by mediation phase which included 03 intervention sessions with individual participant and focused on particular reading comprehension sub skill as required by the individual. The analysis of post-test revealed a "measurable progress in participants' performance" (p.22) due to reading scaffolding provided during mediation sessions.

Theorizing the pedagogical transformation of 14 teachers under Vygotskian concept of ZPD, Scholl (2014) placed teachers in the position of learners "who are positioned to learn from students (children)" (p.99). This pedagogical transformation happened when teachers were trained to listen to the students by asking more questions, and involving them in discussions and reasoning activities (p.93). In fact teachers' acknowledgement of the expertise, knowledge, reasoning and wisdom of students makes the "boundaries on the teachers' side of the ZPD becoming more porous and permeable" (p.100) and opens an intersubjective third space where the roles of mentor and mentee keeps changing. In the current scenario "the students' thoughts and learning provided the scaffolding for the teacher's learning" (p.100) and helped them becoming more reflective people and educationists.

In another study, following Vygotskian perspective of scaffolding, Lim and Jacobson (2001) investigated the role of peer scaffolding in a dictogloss task. They denoted ZPD to be a process of internalization "that takes place as external, higher mental functions begin to operate on an intramental plane" (p.3) and the guidance and cooperation that is generated inside the ZPD is operationalized as scaffolding. For the research 19 L2 learners, who had migrated to Singapore within last six months, were selected from a Singaporean secondary schools. Their 07 dictogloss sessions (03 training and 04 actual) were conducted during extra language classes which were aimed for the foreign students. The actual sessions were audiotaped and students were directed to write in journals about the session. Moreover 02 questionnaires were utilized to investigate students' responses to collaborative work in the beginning and concluding sessions of dictogloss activity. This all was followed by one-to-one interview of 06 selected participants to probe into the socio-affective effects of collaborative work. Then, following the coding categories provided by Wood, Bruner & Ross (1976) and Tharp & Gallimore (1988), only one task's episodes were coded for scaffolding functions(p.8). The data analysis revealed that questioning for clarification and extending feedback "accounted for over 50% of the scaffolding functions" (p.13) while other functions of providing propositional knowledge, cognitive structuring, and direction maintenance collectively accounted for just over 30% of the overall scaffolding functions(p.14). The results of this study illustrate that peer collaboration among L2 learners can be successful in generating results "in terms of both cognition and affect. In other words, two (or more) heads can be better than one" (p.19).

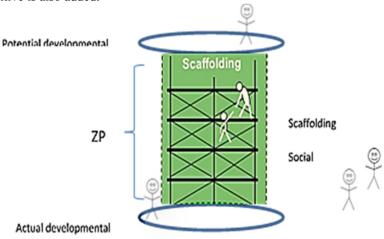
Sidek (2011) conducted a case study with 4 ½ year old (L2 learner) child to examine the role of scaffolding in his syntax development. Following Vygotsky theory of scaffolding within ZPD, Sidek assessed child's zone of actual development by showing him illustrations in the book and then asking "Tell me about this picture." (p.165). After three such sessions the experimenter began scaffolding sessions by providing model description for describing the illustrations. During this period, the child was found asking question to clarify or confirm his understanding. At the end of scaffolding treatment a post- test was conducted in the similar fashion as pre-test was undertaken. However, the experimenter provided some facilitation to the learner by providing some leading questions as "What are they doing?, After that..., Then..."(p.165) so that the learner may continue his description. The whole conversations in pre and post description were tape recorded and later used in measuring child's mean length of utterance (MLU). The comparison of pre-, post- and target description helped in determining MLU, and other paraphernalia related to syntax in all the three contexts. The data analysis revealed that the learner could obtain 60% of target MLUs with the help of scaffolding in ZPD. The scaffolded assistance has helped the learner in reproducing sentences that were "grammatically accurate and semantically parallel" (p.172) to the model description. This study further elucidates that provision of comprehensible input; language scaffolding and positive reinforcement can help children in learning L2 in an effective and efficient manner (p.174).

Myers (2000) studied second language learning by 23 English speaking students studying French. The students were given specially designed task with a view that "through interaction, they will justify and redefine the task, scaffold and communicate" (p.12). The students were not given specific instructions except some written instructions or paraphrasing of the same instructions in target language. The students performed the task in self-selected groups and the researcher controlled the motion of the activity by providing "check-ups and further instructions" (p.12). During the course of activity it was observed that learning was taking place through interaction among the students as they appeal "to each other for grammatical or lexical support" (p. 12). At the end of stipulated time of the activity the students could solve the activity on their own with the help of scaffolding as the "students together were able to formulate an answer that none of them knew at the onset.... This allows a close-up view of the Zone of Proximal Development" (p.15). Later, the success in follow-up home assignment justified the internalization of new grammatical forms and understanding. The researcher finds out that it was possible only



due to scaffolding as the task was designed to encourage scaffolding among peers and it resulted in the form of many lexical realizations and understanding of grammatical forms (p.18). In the light of above mentioned account it is quite evident that ZPD and scaffolding have a wide ranging application and implication. Starting from its role in learning L2 language skills, ZPD finds itself in diverse domains such as DA, ICT, teachers' training, vocational and on job training and the like. In every domain the researchers have benefited with the Vygotskian theoretical framework and concepts.

The current study will focus on the role of grammatical scaffolding among Pakistani students while they will be working in their respective ZsPD. Inter alia, a new research dimension related to ZPD to be either gender-sensitive or gender-insensitive is also added.



Zone of Proximal Development

Vygotsky's Theory of Learning and Cognitive Development: A Sociocultural Stance

The very concept of Vygotsky's theory of learning makes him stand closer to Social Constructivist theorists who consider learning to take place in a social-cultural context through interaction with others found around a learner (Oldfather, 1999, p.8).

Vygotsky (1997) was critical of lack of theoretical clarity regarding relation between learning and development among children and declared that all research in the field so far has "resulted in a variety of errors" (p.29). He condensed all such prevalent notions of relation between development and learning in children into three major theoretical positions (p.29) i.e those who consider that:

- (a) Learning and development are unrelated/independent phenomena development precedes learning
- (b) Learning and development occur simultaneously
- (c) Learning and development are mutually interdependent

For Vygotsky the theorists belonging to first category such as Piaget assume that child's learning is independent of developmental processes. Learning is considered as an external process that doesn't contribute in influencing development. The cognitive processes like understanding, deduction, interpretation of the physical world, logical and abstract thinking etc. occur on their own as learning has no influence on development (p.29).

Scaffolding and Zone of Proximal Development

The concept of ZPD is extensively explained in the work of Mitchell and Myles (2004) who consider it to be that area of understanding or knowledge "where the learner is not yet capable of independent functioning, but can achieve the desired outcome given relevant scaffolded help"(p.196). They witness this *desired outcome* as an individual's journey from other-regulation to self-regulation whereby with the help and assistance of more skilled individuals, he is able to perform "autonomous functioning" (p.195) of the same skill which earlier he was unable to do. In fact, the individual learner is drawn towards shared understanding through "collaborative talk" (p.195) until he "appropriates" this new knowledge/skill and embeds in his individual consciousness to be used later to regulate his "performance on another similar occasion" (p.210). This whole "process of supportive dialogue which directs the attention of the learner to key features of the environment, and which prompts them through successive steps of a problem, has come to be known as scaffolding" (p.195). Van Lier (1996) suggests that scaffolding in the form of assistance from an adult or more capable peer, interaction with equal and less capable peers, and inner resources such as previous knowledge, memory, experience etc (p. 193) helps learners constructing their ZPD and eventually reaching the "circle of self-regulation" (Kao, 2010, p.128).

The term scaffolding is actually metaphorically used "to capture the qualities of the type of other-regulation within the Zone of Proximal Development which is supposedly most helpful for the learning or appropriation of



new concepts" (p.210). Scaffolding refers to the "dialogic process by which one speaker assists another in performing a function that he or she cannot perform alone" (Attarzadeh, 2011, p.5). Kao (2010), in his work, cites Bruner (1983) who considers scaffolding as "a process of 'setting up' the situation to make the child's entry easy and successful and then gradually pulling back and handling the role to the child as he becomes skilled enough to manage it" (p.121). A near similar concept is forwarded by Swain & Suzuki (2008) who consider scaffolding to be a tutoring provided by a knowledgeable adult or a peer to a less knowledgeable individual to complete a task which he is unable to do on his own (p. 564). They also signified the role of peers who "scaffold one another" (p. 564) by participating in collaborative activity and co-constructing the new knowledge.

Axford, Harders & Wise (2009) enunciate that the term scaffolding has become synonymous with 'support' in educational context. However, it is much more than mere support because it "facilitates the performance" (p.3) by enabling the doer to perform a challenging task. Learning takes place in ZPD when learners, through interaction and support of others become able enough to complete a task which earlier they could not do independently. In doing so they develop necessary skills such as "physical co-ordination, mental structuring of task, verbal skills and so on" (p.7) that enable them becoming more independent in performing that task in future.

For Wood, Bruner & Ross (1976), a learner needs more than modelling and imitation from the social context during problem-solving and skill acquisition. "Most often... it involves a kind of "scaffolding" process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts" (p.90). They further explain this process to consist of "the adult controlling those elements of the task that are initially beyond the learner's capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence" with the result that learner achieves more than "an assisted completion of the task" (p.90). Moreover, they enlisted 6 "scaffolding functions" (p.98) that can be employed in assisting learners in learning contexts. Scaffolding helps learners in:

- recruiting interest in the task
- simplifying the task by reducing the number of constituent acts
- maintaining the pursuit of a particular goal
- marking critical features and discrepancies between what has been produced and the ideal production
- controlling frustration during problem solving,
- demonstrating the solution to a task

Likewise, Langer & Applebee (1986) and later Bereiter & Scardamalia (1987) suggested some of the following strategies for the assistance/ tutoring (scaffolding) of learners as they are involved in exploring new skills:

- Offering different examples for learners' imitation
- Arranging structures in a way that learners could observe their own progress
- Limiting the available choices for the learners and making it convenient for them to choose appropriate strategies while completing projects
- Providing learners with strategies to make their progress visible for later discussion and analysis e.g graphic organizers and labels to help them in categorizing and organizing their knowledge

ZPD, Scaffolding and Second Language Learning

Much of the work related to ZPD and scaffolding in the field of linguistic focused on the role of mediators in L1 scenario (Donato, 1994, p.41). However, Donato (1994) moved ahead and investigated the phenomenon of second language development among non-native speakers in classroom setting. He considers that the concept of scaffolding in language learning scenario is derived out of cognitive psychology and L1 research. In this context this concept "states that in social interaction a knowledgeable participant can create, by means of speech supportive conditions in which the novice can participate in, and extend, current skills and knowledge to higher levels of competence" (p.40). The findings of this seminal work suggest that scaffolding "occurs routinely as students work together" which helps in problem-solving and generating "linguistic development within the individual" (p.52). He, while discussing the findings of his work states (p.51):

This is not surprising in light of Vygotskian theory, which argues that individual knowledge is socially and dialogically derived, the genesis of which can be observed directly in the interaction among speakers during problem-solving tasks. (Donato, 1994, p.51.

Significance and Purpose of study

In Pakistan Urdu is treated as her official language while English is used as a means of communication in official settings. Moreover, it is adopted as a sole medium of instruction in some elite schools while the rest has opted its teaching as a compulsory subject. So far much research is done in the field of ZPD, scaffolding, and L2 language learning skills such as reading, writing, speaking, spellings, grammar, dynamic assessments etc.; however, the current study focuses on the role of grammatical scaffolding among Grade 8 students with an emphasis on the role of gender in learning output. This study will add to the volume of work already done in the field of Applied



Linguistics in general, and in educational research related to gender differences in particular. The researcher aims to:

- Analyze the role of scaffolding in L2 grammatical development and appropriateness.
- Determine the effect of learner's gender on the output while s/he is undergoing grammatical scaffolding in ZPD.

Research Questions

Based on the assumptions related to ZPD and scaffolding following research questions were formulated:

- Q.1. What is the role of language scaffolding in students'L2 grammatical development?
- Q.2. What is the effect of learner's gender on grammatical learning in ZPD?

Research Methodology

The study was experimental. Equivalent group study design was used. The pretest-posttest equivalent group design was considered most useful design for this study. The collected data of both groups were analyzed and interpreted using mean, standard deviation and t-test, df and Cohen's d and conclusions were drawn. Students sample was divided into two groups: Both of groups were equated on the basis of gender. For the study 61 (30 males, 31 females) Grade 8 students have been chosen as a sample. Though the college is a co-education institute but the classes are conducted separately for boys and girls. In the present study 02 sections of Class 8 have been selected and a pre-test was conducted on the basis of grammar activity of Subject-Verb Agreement, given in Unit 7 of their prescribed book was taken as testing area. The students had a basic knowledge of subject and verb but their understanding of subject- verb agreement and its rules was never touched upon before.

For the pre-test of subject-verb agreement, the students were told to go through the contents in the book. The next day their pre-test was conducted where they were asked to provide the correct verb in the blanks by choosing an appropriate answer from the given ones, in order to determine their Actual Developmental level. These tests were marked and students' mean score was determined. For the next two sessions the students were provided the scaffolded help in the form of teacher's guidance who taught them the lesson by providing sufficient practice involving modeling of correct response, questions and answers for clarification and feedback, construction of new sentences involving subject-verb agreement, and completing the exercise with the help of teacher. The same teacher taught both the sections, following the same lesson plan. Moreover, in third session a peer activity Be an Editor was introduced in the classes where students had to work in pairs to identify errors in the sentences published online or in newspapers and in the lyrics of a song. After 20 minutes the teacher gets the feedback by asking questions from the weaker partner and providing clarification, when needed. In session 4 a post-test was conducted. It was the same test which was earlier given as the pre-test. All the sentences were matching student's mental caliber as they were taken from the websites where they were sorted according to the Grades. The post-test was marked and mean score was taken out.

Population and Sample

All boys and girls of grade 8 was the population of the study and through random sampling 61 students (30 males, 31 females) of Grade 8 have been chosen as a sample. In the present study 02 sections of Class 8 have been selected and a grammar activity of Subject-Verb Agreement, given in Unit 7 of their prescribed book was taken as testing area.

Results

4.1 Tables

Shows average "percentage improvement" in pre-test results and post-test after 12 weeks teaching through Scaffolding.

Test type	Sec D (Boys)	Sec A (Girls)	
Pre-test	62.40%	55.60%	
Post-test	69.20%	70%	

Table 4.2 Difference between mean scores and t-value of the Boys and Girls on pre-test before Scaffolding.

Group	N	M	SD	df	t- value	Cohen's d	Effect Size
Girls Boys	31 30	13.6 15.6	4.2564 3.2562	28	0.31	0.11	0.45



Table 4.3 Difference between mean scores of the Boys and Girls on posttest after scaffolding.

Group	N	M	SD	df	t- value	Cohen's d	Effect Size
Girls Boys	31 30	17.5 17.3	5.38 6.70	28	4.59	4.59	0.65

5. Discussion and Conclusion

In pre-test, the mean score attained by Section D (Boys) is 15.6 (62.4%) and Section A (Girls) is 13.9 (55.6%) is indicative of boys better performance in the initial pre- test. Later, their efforts were scaffolded by their teacher who clarified the rules of subject-verb agreement, provided sufficient practice involving modeling of correct responses, questions and answers for clarification and feedback, construction of new sentences involving subject-verb agreement, and a peer activity in the class. After the tutoring a post-test was conducted and the class average was calculated to be 17.3 (69.2%) for the boys and 17.5 (70%) for the girls. The calculation suggests an average increase of 1.7 marks among boys and 3.6 marks (almost double) among girls. Table 4.2 indicates that the difference between the mean scores on pre-test was found to be insignificant at 0.05 performances of a peer activity and a gain in class percentage fully establishes the role of language scaffolding in students' L2 grammatical development. Inter alia, the results are suggestive of the fact that female students got the maximum benefit of scaffolding in improving their grammatical skills as compared to their male counterparts. The female students' double gain in marks suggests gender sensitivity of the ZPD as far as grammatical skills in language learning are concerned. A comparatively low score in pre-test, as compared to male students, and later improvement in post-test indicates that female students can perform better once given appropriate tutoring by a MKO.

The current study will not only help in understanding the gender sensitivity of ZPD in language learning, but also prove helpful in suggesting individual differences among male and female students. This will help the teachers teaching grammatical skills to either mixed gender classes or same gender classes to tailor their lesson plans and teaching strategies according to the needs of the students.

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