Playing away stress and anxiety: Exploring nondigital game-based vocabulary learning

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Abstract Anxiety and stress are the chief factors that handicap tribal learners’ cognition when learning the English language. Learners of English as a second language experience anxiety and stress for several reasons. The study showed that the greater the stress and anxiety were, the less motivation the students had toward learning the English language. The present study intends to mitigate the anxiety and stress of upper primary tribal students through nondigital game-based language learning in the classroom. The sampling method employed in this research was convenient. A questionnaire, pretest, intervention (nondisciplinary game-based language learning), posttest and feedback were used to collect the data. The data were collected from middle school tribal students (n = 100). The collected data were analysed through paired t tests in SPSS, and the results revealed that tribal learners’ performance improved after the intervention. The results highlighted the vocabulary progress achieved by the experimental group through game-based learning. The study concludes with limitations and implications for future research.

Keywords: anxiety, stress, survival vocabulary, game-based language learning, tribal students

1. Introduction

Anxiety and stress are human traits that are influenced by life’s demands and pressures to fulfil the basic needs of a routine life. Anxiety can either be positive or destructive. If positive boundaries are not crossed, anxiety can be beneficial; however, if they are, it can become detrimental. Approximately one-third and fifty percent of the students are claimed to have severe levels of language anxiety (Worde, 1998). According to Hilgard et al. (1983), anxiety is defined as “a psychological construct, commonly described by psychologists as a state of apprehension, a vague fear that is only indirectly associated with an object.”

In language learning, classroom learners are anxious because they are exposed to a language other than their mother tongue, which results in apprehension and stimulation of a negative emotion. Anxiety is a crucial factor that directly correlates with the success of language acquisition. Language anxiety “encompasses the feelings of worry and negative, fear-related emotions associated with learning or using a language that is not an individual’s mother tongue” (MacIntyre & Gregersen, 2012).

Research has shown that language anxiety and stress are closely interconnected with learning English as a second or foreign language (Naser & Al-Otaibi, 2019; Alrabai, 2014). According to Horwitz (2001), “Anxiety negligently influences language learning, it is logical because anxiety has been found to interfere with many types of learning and has been one of the most highly examined variables in all of psychology and education.” Anxiety can be classified into three categories: trait, state, and situation-specific anxiety (Horwitz, 2001).

Trait anxiety refers to the personal state of a person who has a predisposition to encounter fear, stress, and worry across various circumstances (Spielberger, 1983). State anxiety is a psychologically ephemeral feeling that lasts until a task is completed (Cattell & Scheir, 1963). Spielberger (1983) described trait anxiety as the experience of a state of anxiety. The propensity to face anxiety in a specific type of situation, such as during testing (referred to as “test anxiety” or when learning a second language “language anxiety”); Second language learning involves situation-specific anxiety, and it is interconnected with learners’ mastery of language dexterity. Due to the concern of being judged by others, situational anxiety can develop in strange or novel circumstances. William (1991) observed that language anxiety has aided some learners in “do better” and “prevented some from doing well”. Thus, situation-specific anxiety both facilitates and debilitates in the language learning classroom (Ali & Anwar, 2021).

Research has shown that anxiety is related to one’s personality; introverts are more affected by anxiety than extroverts are (Brown et al., 2001). Students who study English as a second or foreign language in many nations experience language anxiety because of their poor listening comprehension, limited word production, trouble learning new vocabulary, worse grades in language classes, and subpar test scores (Horwitz & Young, 1991; MacIntyre & Gardner, 1991). It is believed that recurring unpleasant experiences are what causes anxiety and stress in a second-language acquisition environment.
The primary objective of this research was to identify the reasons behind anxiety and stress in the ESL classroom and to eliminate stress and anxiety through nondigital game-based language learning. The researcher also attempts to address the causes and consequences of anxiety and stress by analysing students’ behaviour while answering questions, actively partaking in classroom language learning activities, and performing tests. This quantitative research contributes to comprehending the present problem and employs an effective teaching methodology to inculcate tier-one vocabulary to tribal students.

1.1. Research Questions

This research answers two main questions:

1. What are the main causes of anxiety and stress in tribal English language learners?
2. How do nondigital game-based language learning activities aid learners in learning vocabulary, eliminating anxiety and stress?

1.2. Significance of this study

Since English is one of the subjects that must be passed on to the next grade, the problems of anxiety and stress hinder students in addition to having a negative impact on educational progress. This study intends to teach English survival vocabulary to tribal learners without the use of digital games, with the purpose of eliminating their stress and anxiety. As the country with the second-largest population of tribal people, known as ‘Adivasis’, India is home to a substantial number of tribal communities. The tribal students reside in remote mountainous regions and have deficit exposure to English language learning. It has been observed that while English instruction is not given much attention in the early years of schooling, by the latter stages of learning, students find it challenging to focus on the English curriculum and are impacted by language anxiety (Zheng, 2008).

This study explored the common problems underlying language anxiety, especially in ESL learners, such as exam anxiety, English language viewing as an alien language, students’ lack of motivation, interference from their mother tongue, fear of receiving negative marks, fear of answering in the classroom and lack of parental support. Most significantly, this study has pedagogical implications for providing survival vocabulary to tribal learners. Language learners who struggle with anxiety frequently lack motivation and exhibit shyness and nervousness.

1.3. Vocabulary for tribal learners

Vocabulary is a basic need for language learners to master any language (Nation, 2015). Knowledge of vocabulary and its meaning is essential for learners’ academic success. Stahl (2005) asserts that true knowledge involves comprehending how each vocabulary seamlessly fits into the environment rather than just knowing how to define words. There are far more than 600,000 to 800,000 words; therefore, learning new words is a continual process. According to surveys, a student enters first grade with approximately 6,000 spoken words (Chall, 1983). An average student learns approximately 3,000 new words per year as a result of the ongoing vocabulary learning process. The frequent question posed by language teachers is “How do we choose the words that need to be taught to improve vocabulary skill?”. The researcher understands the level of the participants’ English exposure through a diagnostic test determined to teach tier one vocabulary. There are three tiers of vocabulary: tier one, tier two, and tier three (Beck et al., 2013). The tier one is the basic vocabulary used for survival purposes. Tier two vocabulary is used by mature language users. The tier three vocabulary is subject specific.

Tribal schools lack access to English language classroom instruction, in contrast to urban or rural schools. When tribal learners are young, little attention is given to their acquisition of the English language; instead, great pressure is placed on them to memorise and regurgitate content without any comprehension just to pass the exam. Learning vocabulary is a crucial process. According to Chall (1983), teachers are expected to start teaching vocabulary to pupils at the elementary school level. In contrast, teachers in tribal schools urge learners to study English during exams for the purpose of scoring marks on exams. There are several obstacles that tribal students must overcome to learn English, including a poor learning environment, a shortage of teachers, a family situation, an inadequate supply of teaching resources, a lack of individualised instruction from teachers for each student, and a lack of educational institutions. However, this study focused on the causes of anxiety and stress in ESL classrooms and explored ways to mitigate language anxiety.

2. Reasons for Anxiety and Stress in the ESL Classroom

To answer the first question of this study, it has been found that a variety of factors can contribute to anxiety and stress in second language learning settings. Anxiety and stress are critical problems in ESL classrooms because a complex reaction to actual or imagined threats is anxiety. It causes changes in an individual’s behaviour, physicality, and cognitive functioning. Stress and anxiety are related because stress trigger anxiety, whereas anxiety triggers stress, which is the body’s reaction to an external threat. The reasons behind stress and anxiety in the English language learning environment were identified by the data collected from the tribal learners through questionnaires and interviews.
2.1. Exam anxiety

One of the main problems that tribal students in ESL classes struggle with is exam anxiety. When teachers announce an upcoming English exam or test, this anxiety is triggered. This is a serious kind of anxiety experienced by tribal learners while they appear for academic exams. Students lacked fundamental vocabulary skills and experienced fear when asked to explain or write their answers. Tribal learners’ poor vocabulary skills are caused by a shortage of English teachers, teacher absenteeism, inadequate instructional resources, and improper curricula. The government schools that are accessible to tribal children offer education; however, because of the multigrade instruction, early English language instruction is not offered. One instructor teaches all the subjects from elementary to primary in a mixed-age classroom in a tribal school; this classroom has more than forty pupils (grades 1 to 5). A mixed-age classroom may present learning challenges for certain individuals, even though multigrade education offers certain advantages. These disadvantages stem from disparities in students’ maturity and skill levels.

Teacher absence is a common occurrence at distant tribal schools and has an impact on pupils’ education. Students lack individual attention and are often not taught the importance of English in the globalized culture present today. Due to inadequate English instruction in the early grades, tribal students see English as a foreign language. Parents and teachers in higher education pressurize them to score well on the English exam. Exam anxiety is caused by this pressure, which makes it difficult for students to study and perform well on their exam.

Even if the students perform poorly on their tests, they are not dismissed from school in Tamil Nadu, India, until grade 9. As a result, students become reluctant to learn English in the early stages. At the upper primary level, teachers pressurize the students to do well on the English exam, which over time causes stress and anxiety inside the students. The students are panicked by the teacher’s demands and unrealistic expectations for the exam (Kralova & Petrova, 2017). According to Horwitz et al. (1986), students are nervous about providing an incorrect answer in front of the class, which is corrected by the teacher.

2.2. Cultural and family background

It has been perceived that the cultural and familial backgrounds of learners influence the level of stress and anxiety in the ESL classroom. The importance of studying English is unknown to the learners’ parents, as 80% of them are illiterate. The cultural customs and familial history of parents have a significant impact on the English language development of learners since they do not have the opportunity to practice English or ask about the language at home. Tribal parents do not encourage their children to learn English because they see it as an enormous task.

The tribal parents have biased mindsets, so they permit men to pursue their education; however, women do not because they still adhere to superstition. Their conservative upbringing prevents the students from utilising cutting-edge teaching and learning resources and makes them feel anxious about interacting with nontribal students. The students had less exposure to language learning and limited vocabulary knowledge, allowing them to communicate in English without prior preparation.

Tribal learners also encounter difficulties keeping up with the English curriculum because of their inadequate comprehension of the vocabulary and its context. Horwitz (2001) emphasised that it is essential to remember cultural differences when practising English in the classroom because they may cause anxiety in students.

2.3. Mother tongue interference

The use of the learner’s mother tongue aids in improving comprehension of the vocabulary or concept. However, in settings such as tribal schools where English classes are taught by other subject instructors in L1 (Tamil) due to teacher absenteeism, neither the teacher nor the students are able to grasp the language. The only place for students to learn and practise English is at school, but ironically, this is where the school falls short because when pupils are required to speak in front of others, they exhibit a variety of anxiety-related symptoms.

The mother tongue is similar to identify and culture, but its influence in English classes reduces students’ opportunities to communicate in English and undermines their confidence in the language. If the learners are constrained to speaking only their native language, they may have restricted access to information that is available only in their language.

It is clear from the research that the students were uncomfortable speaking in English because they were not accustomed to using it. Certain students found communicating in English embarrassing because they felt inferior to their peers, while others were anxious about speaking in English because they lacked fluency in the language. This study revealed that stress and anxiety impair learners’ cognitive abilities, leaving them dumbounded.

2.4. Lack of motivation

The word ‘motivation’ is a Latin term for ‘to move’ (Seven, 2020). The ability to be motivated is necessary in ESL classes. No amount of extrinsic motivation can help people learn English if they have lost their personal motivation to do so.
Research has shown that motivation is a useful tool for helping learners improve their English learning. An individual’s effort, desire to accomplish goals, and attitudes all contribute to motivation. There are three characteristics of motivation:

1. It comes from a perceived necessity.
2. A person is motivated to act in a goal-directed manner.
3. It supports developing behaviours. This process continues until the expected state is satisfied or reduced.

It was discovered through interviews and questionnaires that the learners have low self-esteem and that they are surprised when the researcher tells them, “You can all do better at learning English.” The pupils believe it is difficult for them to learn English since they are not motivated by their parents, friends, or relatives. Therefore, they feel tense in the English class. Furthermore, students’ cognitive processing is hampered by stress in the English classroom, which results in low self-esteem and mental disorders. Accordingly, anxiety has an impact on the effectiveness and efficiency of cognitive abilities. It has been proven that accomplishing an activity requires both time and mental capacity; worry slows cognitive function but does not affect quality.

3. Methodology

The present study employed nondigital activity-based language learning to teach survival vocabulary to the audience. The sample for this study was chosen by the convenience sampling method. The most typical kind of nonprobability sampling is convenience sampling. The technique of gathering samples from conveniently placed locations all around an area is known as convenience sampling (Edgar & Manz, 2017). The participants were from the Malayali tribe, which is the largest tribal community in Tamil Nadu; Malai refers to mountains, and Yali refers to living. The participants were from middle school (grades 6 to 8) and were pursuing their education in their first language (L1). This tribal community prefers to perpetuate its culture and superstitions since it is isolated from the rest of society and lives in the mountains. As a result, there is little awareness about the world today. The participants in this study were N=50 in the experimental group and N=50 in the control group.

The researcher gained an understanding of the problems faced by tribal schoolchildren through questionnaires, interviews, and observation. The pupils must move from their place of residence to the city because there is limited access to educational facilities in the mountains. Due to their poor English proficiency, tribal pupils cannot interact with nontribal students. Taking this into account, the researcher taught survival vocabulary for the purpose of survival in city culture. The conventional method of teaching generates increased anxiety in pupils, so to make the language learning environment dynamic, activities are used. The researcher conducted a pretest, and an intervention was given to the experimental group to determine the effectiveness of the game-based learning posttest.

4. Non-Digital Game-Based Language Learning

The NDGBLL is used with the goal of assisting ESL students in overcoming stress and anxiety in the classroom by teaching English through games. Students who learn through games are encouraged to challenge themselves, pay attention, try new things, and take risks, all of which are effective at learning (Klopfer et al., 2009). This learning method is very interactive because it encourages learners to be involved and helps them learn without any negative consequences even if their answers are wrong. When combined with the English curriculum, game-based learning shows how to effectively integrate gamification in the classroom and increase students’ intrinsic drive for active and in-depth learning.

Numerous studies have demonstrated that there is a positive relationship between NDGBLL and students’ motivation for learning (Plump & LaRosa 2017; Licorish et al., 2017; White, & McCoy, 2019). Webster, Trevino & Ryan (1993) mentioned that game-based learning enhances the positive impact of language learning in the classroom. In conventional ESL classrooms, learners are idle, passive, uninterested and demotivated, but game-based learning paves the way for competitive, interactive, and collaborative learning.

4.1. Game Design

English is taught as a second language in India, and most second language learners encounter anxiety when learning a new language (Beck et al., 2013). The instructor intended to create an anxiety-free learning environment, so three weeks of game-based language exercises were planned, with one game played each week. These activities were developed to enhance vocabulary in a relaxed setting free from anxiety and stress. The following is a description of the learning activities:

1. Picture and vocabulary: Dolati and Richards (2011) stated, “In the language learning, pictures are used to provide associations for the learning of new words.” Pictures are an excellent approach to increase English vocabulary since they are accurate and precise and give learners visual delight. The pupils were encouraged to acquire and retain vocabulary related to the correct image through this task. One of the cognitive processes that links language learning and mental growth is perception. This activity’s goal is to teach students a word’s definition through a suitable picture. Two groups were divided: one exhibited pictures, while the other determined the words. The students who provided the incorrect response were given a second chance to learn it correctly. Since there was no negative feedback, the students actively engaged in the activity.
2. Semantic Mapping: A strategy called semantic mapping is intended to visualise concepts. This approach is specifically intended for students who have trouble remembering or understanding word meanings. "Semantic mapping is a visual technique for extending vocabulary and knowledge by categorising words that are related to one another" (Kholi, & Sharififar, 2013). It was established in the 1970s by Joseph D. Novak to help pupils comprehend things more quickly. The aim of this activity is to stimulate students' ability to think critically and assist them in categorising the terminology into groups. Six groups were formed, and each group was given a topic. The team that finds the most terms related to the topic wins. Additionally, this game promoted peer learning, collaboration, and teamwork.

3. Vocabulary Album: Making a vocabulary scrapbook is an original concept for children of all grade levels who are learning English vocabulary. Students were able to graphically relate the vocabulary they had learned and refer to it whenever necessary by making a vocabulary album. This activity provided a variety of learning styles in the classroom, which benefited visual learners in particular. The primary goal of this activity is to encourage students to refer to the photo album and learn the language if they are doubtful. Due to the repetitive vocabulary learning session, the students felt comfortable working on this individually.

5. Results and Discussion

The students mentioned that they can retain vocabulary by using collocations when they are taught via NDGBLL. The results of the survey showed that activities built a better path for a fruitful teaching-learning experience to be achievable. According to the research's conclusions, most participants reported that they learned new vocabulary quickly and that they also realised how important it is for them to learn the English language. It is obvious that students in traditional classrooms have linguistic anxiety because of the rigid setting. Stress and anxiety limit students' vocabulary expansion. The cognitive abilities of learners, including perception, reasoning, critical thinking, and concept generation, are harmed by rote learning.

The independent sample t test results in Table 1 indicate that the pretest score was greater (3.63) in the experimental group than in the control group (2.64). On average, the experimental group had 0.99 points greater values than did the control group. There was no significant difference between the two groups. The outcome demonstrated the need for vocabulary development in the tribal.

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Table 2 displays the comparison of the experimental and control groups posttest. The mean score of the experimental group posttest was M = 24.45 (SD = 6.718), and the mean score of the control group posttest was M = 10.03 (SD = 7.211). On average, the score in the experimental group posttest was 14.417 points greater than that in the control group (24.45 > 10.03). The p value is less than the significance value (<0.001 < 0.05). Thus, the results analysis revealed significant interference between the experimental and control groups. Thus, the results analysis revealed significant interference between the experimental and control groups. The posttest results demonstrated that NDGBLL is effective in English vocabulary teaching classrooms. Most of the time, the traditional classroom setup is rigid, passive, and not learner centred. However, in the NDGBLL classroom, the students were provided with a conducive environment for learning and using vocabulary.

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6. Final Considerations

The NDGBLL was effective because the students found the games to be enjoyable and provided players with enjoyment, fostering their involvement, which is essential for vocabulary learning. They also understood that games offer motivation and student engagement and are objective-driven, interactive, and offer rules—all of which are crucial for efficient learning. The feedback and results that games have are essential for enhancing learning. It has become critically necessary to teach vocabulary to the largest proportion of tribal pupils who live in abject poverty. Several years have passed since the English language was introduced to India, yet the tribals are still ignorant of the significance of the global tongue, which is English. This study revealed that tribal students' learning of the English language was impacted by stress and anxiety. According to the experimental study, tribal students are provided with a welcoming English-language classroom free of any obstacles that prevent them from learning new words. The very mention of "English" made the tribal learners anxious, but because the learning environment was stress free, the pupils developed an interest in and actively engaged in the activities used to efficiently teach vocabulary. This study dealt only with teaching tier one survival vocabulary to tribal learners by...
employing nondigital game-based language learning. Further research can be carried out to focus on LSRW skills using novel approaches and techniques.

Acknowledgement

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Ethical Consideration

A written consent was obtained from the participants and the data was fully anonymised.

Conflict of interest

The researchers declare that they have no conflicts of interest.

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References


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