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**Original Scientific Paper**

# RELATIONSHIPS BETWEEN STUDENTS' ANXIETY IN FOREIGN LANGUAGE LEARNING AND COMMUNICATIVE LANGUAGE ABILITY IN HIGHER EDUCATION CONTEXT

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**Abstract**. *The study explores undergraduate biotechnology students' levels of foreign language anxiety, their levels of communicative language ability in English as a foreign language, and the relationships between these phenomena. Three instruments were used in the study - the Foreign Language Classroom Anxiety Scale, the Communicative Language Ability Scale, and a speaking assignment. The measures of internal consistency, inter-rater reliability, descriptive statistics, and Pearson correlation analysis were used for data processing. The study showed that the students' levels of foreign language anxiety are at a medium level. Also, the levels of communicative language ability and its competences are at an intermediate level. The obtained results indicate that the students' foreign language anxiety levels are related to their communicative language ability levels. Moderate correlations are recorded - the lower the levels of foreign language anxieties, the higher the levels of communicative language ability are, and vice versa.*

**Key words**: *biotechnology engineering, communicative language ability, English for specific purposes, foreign language anxiety*

## 1. INTRODUCTION

Researchers and educators in the field of second language acquisition (SLA) and foreign language learning (FLL) have long acknowledged that anxiety as an affective factor is linked to the process of learning a foreign language (Horwitz, Horwitz, and Cope 1986; Horwitz and Young 1991; MacIntyre 1995; Ohata 2005). The presence of foreign language anxiety (FLA) becomes apparent in an FLL environment where learners may encounter concerns and negative emotional responses when engaged in learning a new language (MacIntyre 1999, 27). Apprehension, particularly during language activities

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such as speaking in the classroom, appears to be a commonly identified obstacle to achieving fluency in a foreign language (Gkonou 2014).

Speaking is a remarkably intricate skill that involves the combination of language and discourse knowledge, core speaking skills (such as chunking, signalling intention, turn-taking), and speaking strategies (Goh–Burns, 2012). Foreign language learners usually face challenges in acquiring language proficiency and mastering the skill of speaking as it is the aspect where their language ego is particularly vulnerable due to the heightened self-exposure it entails (Gkonou, 2014). Engaging in public speaking or addressing an audience tends to evoke a significant level of anxiety (Young, 1999). Studies investigating the relationships between foreign language anxiety and foreign language proficiency have shown that learners with higher levels of anxiety exhibit poorer language skills (Ganshow et al. 1994; Aghajani and Amanzadeh 2017) and that those with low anxiety levels outperformed those with high anxiety levels overall (Ganshow and Sparks 1996).

In this study students' English language speaking skills/proficiency is viewed and evaluated via the concept of communicative language ability. This study seeks to explore the concepts of foreign language anxiety (FLA) and communicative language ability (CLA) and to determine how much biotechnology engineering students are relaxed or anxious when they speak English as a foreign language. It also aims to examine students' levels of communicative language ability in EFL and the potential relationships between foreign language anxiety and communicative language ability. Whether students who are less or more anxious than other students show higher levels of foreign language proficiency is worth a closer examination.

## 2. THEORETICAL BACKGROUND

This section focuses on defining and characterizing FLA and CLA in English as a foreign language. Furthermore, related research and studies on these topics are presented.

### 2.1 Foreign Language Anxiety

The adequate definition of FLA began to take shape in the mid-1980s when Horwitz, Horwitz, and Cope (1986) endeavored to establish it as a distinct variable in foreign language learning. FLA is an aspect of situation-specific anxiety. It is a multifaceted concept encompassing self-perceptions, beliefs, emotions, and behaviors specific to the classroom language learning experience, stemming from the distinctive nature of language acquisition (Horwitz, Horwitz, and Cope 1986, 128).

FLA implies performance evaluation within an academic and social context (Horwitz, Horwitz, and Cope 1986, 127). They identified three closely interrelated performance anxieties: communication apprehension, test anxiety, and fear of negative evaluation. These elements are believed to provide useful conceptual building blocks for a description of foreign language anxiety (Horwitz, Horwitz, and Cope 1986, 128).

Communication apprehension (CA) encompasses the shyness, fear, and anxiety that people encounter when they are required to engage in communication with others; it is manifested as difficulties and discomfort when speaking (commonly known as oral communication anxiety or speaking anxiety) within a group, in public, or when listening to or learning a spoken message (referred to as receiver anxiety) (Horwitz, Horwitz, and Cope

1986, 127). The common behaviour of those experiencing communication apprehension involves avoidance and withdrawal from communication interactions (Aida 1994, 156).

Test anxiety (TA) is a type of performance-related anxiety that originates from a deep-seated fear of not performing well (Gordon–Sarason 1955). Test-anxious students often set unrealistically high standards for themselves, believing that anything less than perfect test performance is a failure. When it comes to speaking in a foreign language, it has the potential to trigger both test anxiety and oral communication anxiety simultaneously.

Fear of negative evaluation (FNE) is an individual's fear of being evaluated, distress about negative evaluation, avoidance of evaluative situations, and the expectations of being negatively evaluated (Watson–Friend 1969, 449). This fear of negative evaluation is not limited to testing situations but can be applied to various social and evaluative contexts, such as job interviews or oral presentations in a foreign language classroom.

### 2.2 Communicative Language Ability

Communicative language ability (CLA) may be described as comprising both knowledge (competence) and the ability to execute that competence in appropriate, contextualized communicative language use (Bachman 1990, 84).

The concept of CLA is rooted in the concept of communicative competence which emerged in the 1970s (Hymes 1972) in the fields of anthropology and sociolinguistics research. This concept emphasizes the importance of non-native speakers possessing not only knowledge of language forms but also socio-cultural knowledge to use these acquired language forms appropriately. It was further developed in the 1980s, through the work of Canale and Swain (1980) and Sauvignon (1983), synthesizing knowledge and skills needed for successful communication (encompassing grammatical, sociolinguistic, discourse, and strategic competence). This model maintained prominence until the 1990s when the model of communicative language ability emerged, based on empirical research (Bachman 1990; Bachman and Palmer 1982, 1989, 1996).

The CLA model (Bachman 1990) consists of three key competences:

(1) linguistic competence: it involves (a) organizational elements such as grammatical competence (vocabulary, morphology, syntax, phonology/graphology) and textual competence (cohesion and rhetoric organization), and (b) pragmatic elements such as illocutionary competence (adequate usage and understanding of speech acts as well as of the functions of ideation, manipulation, heuristic function, rhetoric function) and sociolinguistic competence (sensitivity to differences in dialects, registers, sensitivity to naturalness, ability to interpret cultural references);
(2) strategic competence: it revolves around the interaction of various metacognitive components such as goal setting (recognition and selection of goals, and the decision whether to achieve the goal), assessment (means of connecting language usage context and other components), and planning (decision on how to use language competence and other components of language usage in order to achieve a targeted goal); and
(3) psycho-physiological mechanisms: it primarily concerns neurological and psychological processes involving communication channels (auditory and visual) and means of communication (receptive and productive); in receptive language use, auditory and visual skills come into play, while in productive use neuromuscular skills (articulatory and digital) are utilized.

Another model relevant to this research is a model of communication language use within the Common European Framework of Reference for Languages (Council of Europe 2001). This model refers to three basic components:

(1) communicative competence, consisting of:
   (a) linguistic competence (equivalent to Bachman's grammatical competence);
   (b) sociolinguistic competence (corresponding to Bachman's sociolinguistic competence); and
   (c) pragmatic competence, consisting of two factors:
      - discourse competence aligns with Bachman's concept of textual competence, and
      - functional competence considers language macrofunctions (e.g., description, narration, commentary, explanation, or instruction), microfunctions (e.g., seeking information, socializing, or structuring discourse), and message sequencing in accordance with interactional and transactional schemes. Two factors affecting the learner/user's functional success include (i) fluency (the ability to articulate, to keep going when one lands at a dead end), and (ii) propositional precision (clarity in expressing thoughts and propositions);
(2) strategic competence involves the employment of communicative strategies, regarded as the application of the metacognitive principles of pre-planning, execution, monitoring, and repair action across various communicative activities such as reception, interaction, production, and mediation; and
(3) nonverbal communication is the process of conveying and receiving messages without words or sounds and involves a wide array of elements, such as finger pointing, eye direction, paralinguistic elements (e.g., gestures, facial expressions, body posture, eye contact, proxemics), nonlinguistic elements (use of extralinguistic speech sounds), and prosodic elements (pitch, stress, and intonation).

In this study, an eclectic CLA model is employed, consisting of the following key components: grammatical competence, textual competence, sociolinguistic competence, functional competence, strategic competence, fluency, and nonverbal communicative ability. This model served as the basis for developing the assessment instrument designed to measure learners' speaking ability in an oral production task.

## 3. METHOD

### 3.1. Research Questions

The following research questions are explored:
(1) What are the students' levels of perceived FLA and its performance anxieties?
(2) What are the students' levels of CLA and its component competences?
(3) Are the students' levels of FLA and CLA related?

### 3.2. The Participants

A total of 70 participants, biotechnology engineering students at the University of Kragujevac, Serbia, took part in the research. The study involved 56 female (80%) and 14 male (20%) students in the third and fourth year of a 4-year bachelor program. All junior

and senior students were exposed to two compulsory academic courses - English in food industry and English in agronomy in the 2021-2022 and 2022-2023 academic years.

### 3.3. The Instruments

The research instruments involved the Foreign Language Classroom Anxiety Scale (FLCAS) (Horwitz 1986; Horwitz, Horwitz, and Cope 1986), the Communicative Language Ability Scale (CLAS) (Bojović 2021), and a speaking task.

#### *3.3.1. Foreign Language Classroom Anxiety Scale (FLCAS)*

The FLCAS is a tool for measuring foreign language learners' anxiety from the perspective of total anxiety in learning a foreign language and its performance anxieties - communication apprehension, test anxiety, and fear of negative evaluation. The scale consists of 33 items and is of the Lykert-type, with choices ranging from "strongly agree" (1) to "strongly disagree" (5). The theoretical range of the FLCAS is from 33 to 165. The positively worded statements express low levels of anxiety and negatively worded statements express high levels of anxiety. The positive statements underwent reverse scoring, with responses ranging from 'strongly disagree' (1) to 'strongly agree' (5). Consequently, lower scores signify increased anxiety, and higher scores signify reduced anxiety levels. The scale has been adjusted to make the questions relevant to the context of learning English as a second language.

#### *3.3.2. Communicative Language Ability Scale (CLAS)*

The CLAS instrument serves as a means to assess students' communicative language ability as a cumulative factor as well as individual competences. The instrument is based on a range of measuring solutions developed to evaluate individual competences by various authors (Bachman 1990; Council of Europe 2001; Jungheim 2001; Milanovic et al. 1996). The 5-point, multi-trait scale is created for the external assessment of the learners' general speaking ability as well as CLA competences: grammatical competence, textual competence, functional competence, sociolinguistic competence, strategic competence, fluency, and nonverbal communicative ability (Bojović 2021, 48-50). The instrument includes qualitative descriptors that signify the level of each competence measured. It is a 5-point scale, with a range from 1 to 5: the low end represents a low level and the high end indicates a high level of the measured competences.

#### *3.3.3. Speaking Assignment*

A speaking task assigned to the students during the midpoint of their spring semester involves simulated participation in a scientific conference focused on biotechnology. The participants were instructed to complete the assignment so that the levels of their communicative language ability would be evaluated. The students engaged in a simulation of a scientific conference in the biotechnology engineering field delivering oral presentations on the conference's relevant topics in the English language. The students were given half an hour to prepare what they would say prior to their individual recording. They were asked to analyze and compare the growing, production, and processing of two types of fruit (raspberry and plum) and to deliver a presentation to specialists in biotechnology. The topics aligned with the material covered in their English for Specific Purposes classes. A set of English words and

phrases (40 for each plant) was supplied to the participants to incorporate into their presentations, aiming to stimulate the students' oral production.

### 3.4. Procedure and Data Analysis

The instruments were administered to the participants by their foreign language teacher during their regular EFL classes. After completing their oral presentations, the students were expected to self-evaluate their levels of foreign language anxiety using FLCAS; the recorded oral presentations were evaluated by four external raters who used CLAS.

The measures of internal consistency (Cronbach's alpha), interclass correlation (inter-rater reliability coefficient), descriptive statistics (mean values and standard deviation), and correlation statistics were used for data processing. The obtained data were analyzed using the SPSS 22.0 Package for Windows. To establish the levels of students' language anxiety, the 70 students were classified into three groups — high-anxious, medium-anxious, and low-anxious — based on their scores on FLCAS. The authors of the FLACS (Horwitz 1986; Horwitz, Horwitz, and Cope 1986) did not provide the scoring procedure along with the instrument. To determine a student's foreign language anxiety level, which encompasses three performance anxieties (communication apprehension, test anxiety, and fear of negative evaluation), local norms were established for the FLACS. The students' mean scores are converted into z scores: the students scoring more than two-thirds standard deviations above the overall sample mean are categorized as low-anxious; the students whose scores fell within the range of +0.67 t -0.67 standard deviations from the sample mean are identified as medium-anxious; and, those scoring more than two-thirds standard deviations below the sample mean are identified as high-anxious. The "cut point" for high and low anxiety groups was set at two-thirds of a standard deviation to ensure that each group included enough students for comparison (Sparks and Ganschow 2007). ). For the CLAS, the following key helped to interpret the means: mean values from 4.5 to 5.0 indicate advanced level, from 3.5 to 4.49 indicate upper-intermediate level, from 2.5 to 3.49 indicate intermediate level, from 1.5 to 2.49 indicate lower-intermediate level, and values of $M \leq 1.49$ indicate beginner level.

## 4. RESULTS

This section presents the obtained results concerning the levels of students' FLA, the levels of their CLA and competences, and the correlations between these two factors.

In this study, the FLCAS instrument proved to be reliable and internally consistent since the coefficient Cronbach's alpha is r=0.91 This result is within the coefficient values found in the literature for FLACS, ranging from 0.90-0.96 (Horwitz 1986; Horwitz, Horwitz, and Cope 1986; Aida 1994; Cheng, Horwitz, and Schallert 1999; Rodriguez and Abreu 2003; Toth 2008; Yan and Horwitz 2008; Tallon 2011; Bojović 2020). The instrument CLAS was also found to be reliable and internally consistent as the coefficient Cronbach's alpha is r=0.97. The result is within the values found in the literature for CLAS (r=0.98, in Bojović, Palurović, and Tica 2015). External evaluation was also reported to be reliable since the inter-rater reliability coefficient is r=0.81.

### 4.1. The Students' Levels of Foreign Language Anxiety

The descriptive statistics (mean value and standard deviation) show that the overall FLA is at a medium level (M=102.03, the score is between +0.67 and -0.67 standard deviations from the sample mean) and that all the performance anxieties are also at medium levels (Table 1).

The study reports the highest level of anxiety for communication apprehension (M=31.47) and the lowest level of anxiety (the highest level of relaxation) for the test anxiety factor (M=49.84). All the anxiety levels are reported for communication apprehension, test anxiety, fear of negative evaluation, and overall anxiety among the participants ($15 \leq M \geq 54$, $27 \leq M \geq 67$, $7 \leq M \geq 33$, $51 \leq M \geq 150$, respectively).

**Table 1** Levels of students' FLA

| FLCA factors | Possible scores | M | SD |
|---|---|---|---|
| Communication apprehension | 11-55 | 31.47 | 8.509 |
| Test anxiety | 15-75 | 49.84 | 9.952 |
| Fear of negative evaluation | 7-35 | 20.71 | 6.336 |
| Overall anxiety | 33-165 | 102.03 | 22.306 |
| N = 70 | | | |

FLCA -foreign language classroom anxiety, M–mean value, SD–standard deviation, N - number of participants

### 4.2. The Students' Levels of Communicative Language Ability n EFL

The results of the descriptive analysis show that biotechnology engineering students' general communicative language ability (CLA) in EFL is at an intermediate level since the mean value is M = 3.26 (Table 2). The levels of respective competences also fall within the intermediate range, with the highest score being recorded for grammatical competence (M = 3.32), followed by textual competence (M = 3.30). Strategic competence ranks slightly lower (M = 3.14), while fluency (M = 3.12), functional competence (M = 3.09), and sociolinguistic competence maintain intermediate levels (M = 2.93). The lowest was recorded for nonverbal communicative ability (M = 2.53) (Table 2).

**Table 2** Levels of CLA in the formal EFL context

| CLA competences | Possible scores | M | SD |
|---|---|---|---|
| Grammatical competence | 1-5 | 3.32 | .721 |
| Textual competence | 1-5 | 3.30 | .746 |
| Functional competence | 1-5 | 3.09 | .690 |
| Sociolinguistic competence | 1-5 | 2.93 | .667 |
| Strategic competence | 1-5 | 3.14 | .692 |
| Fluency | 1-5 | 3.12 | .687 |
| Nonverbal communicative ability | 1-5 | 2.53 | .814 |
| General communicative ability | 1-5 | 3.26 | .663 |
| N = 70 | | | |

CLA - communicative language ability, M - mean value, SD - standard deviation, N - number of participants

The results suggest that the students-prospective engineers in biotechnical sciences generally possess the ability to communicate appropriately and efficiently while carrying

out the assigned task, with the content of their communication being adequate. However, it is worth noting that there are significant and sometimes inappropriate language corrections made to compensate for their language deficiencies, which may demand a certain degree of effort to understand the speaker/collocutor.

### 4.3. The Relationships between Students' Levels of FLCA and CLA

A correlation analysis was conducted to determine the relationship between the students' levels of foreign language anxiety and their levels of communicative language ability. Positive correlations mean that the higher scores on the FLCAS indicate the higher scores of students' communicative language ability scale. The results are presented in Table 3 (p-value significance levels are shown in brackets).

The overall students' levels of FLA show a positive and significant correlation with students' general communicative ability (r=0.32). All three performance anxieties (communication apprehension, test anxiety, and fear of negative evaluation) are positively correlated with the students' levels of general communicative language ability (r=0.27, r=0,31, r=0.29, respectively). Additionally, the overall levels of FLA are positively and significantly correlated with all communicative language ability competences: grammatical competence (r=0.27), textual competence (r=0.31), functional competence (r=0.31), sociolinguistic competence (r=0.42), strategic competence (r=0.34), fluency (r=0.36), and nonverbal communicative ability (r=0.30).

**Table 3** Relationships - levels of FLA and CLA

| CLA variables | (E)FL anxiety | | | |
|---|---|---|---|---|
| | CA r(p) | TA r(p) | FNE r(p) | Overall Anxiety r(p) |
| GC | .22 | .26* (.027) | .25* (.035) | .27* (.024) |
| TC | .23 | .33** (.005) | .28* (.019) | .31** (.009) |
| FC | .21 | .35** (.003) | .29* (.014) | .31** (.008) |
| SLC | .34** (.004) | .42** (.000) | .38** (.001) | .42** (.000) |
| SC | .28* (.02) | .37** (.004) | .33** (.006) | .34** (.004) |
| FL | .30* (.012) | .35** (.003) | .32** (.006) | .36** (.002) |
| NVCA | .25* (.037) | .27* (.023) | .29* (.013) | .30* (.013) |
| General CA | .27* (.025) | .31* (.01) | .29* (.016) | .32** (.008) |
| N=70 $p < .05^{*}$ $p < .01^{**}$ | | | | |

CLA - communicative language ability, EFL - English as a foreign language,
CA - communication apprehension, TA - test anxiety, FNE - fear of negative evaluation,
GC - grammatical competence, TC - textual competence, FC - functional competence,
SLC - sociolinguistic competence, SC - strategic competence, FL - fluency,
NVCA - nonverbal communicative ability, CA - communicative ability
N - number of participants, r - correlation coefficient, p - statistical significance

Moreover, the correlation analysis shows that two performance anxieties, test anxiety and fear of negative evaluation show positive and significant correlations with all communicative language ability competences. Test anxiety positively correlates with grammatical (r=0.26), textual (r=0.33), functional (r=0.35) , sociolinguistic (r=0.42), strategic competence (r=0.37), fluency (r=0.35), and nonverbal communicative ability (r=0.27). Fear of negative evaluation also correlates positively and significantly with

communicative language ability competences: grammatical (r=0.25), textual (r=0.28), functional (r=0.29), sociolinguistic (r=0.38), strategic competence (r=0.33), fluency (r=0.32), and nonverbal communicative ability (r=0.29).

However, communication apprehension is significantly and positively correlated with four competences: sociolinguistic (r=0.34), strategic (r=0.28), fluency (r=0.30), and nonverbal communicative language ability (r=0.25). The other three competences, grammatical, textual, and functional do not show statistically significant correlations with communication apprehension (r=0.22, r=0.23, and r=0.21, respectively).

## 5. DISCUSSION

The instruments in the study proved to be reliable and internally consistent. The students' foreign language anxiety as well as performance anxieties are at a medium level. Such results are in line with the results obtained in the research investigating the foreign language anxiety levels of students learning English (Rodrigez and Abreu 2003; Chiang 2006; Lucas, Miraflores, and Go 2011; Arnaiz and Guillen 2012; Bojović 2020). On the other hand, high levels of language anxiety have also been recorded (Gregersen and Horwitz 2002; Maros-Llinas and Garan 2009; Pawlak 2011). One should bear in mind that the benefits of such comparisons may be restricted due to individual variations, as the data suggest that proficiency growth is accompanied by increased diversity in anxiety levels (Pawlak 2011). Furthermore, besides instructional factors such as engagement in small group speaking activities (Young 1990), the ambiance within the classroom, characterized by factors like reduced competition and clear task orientation, is linked to decreased levels of anxiety (Palacios 1998). However, higher levels of relaxation have also been observed in a language classroom (Pichette 2009).

The students' oral communication skills as assessed in this study, exhibit a wide range of competences, although there are some noticeable gaps. Their understanding of morphology and syntax structures is fairly extensive but not entirely comprehensive. Vocabulary is at an intermediate level of development. Simple cohesive tools are present and generally marked, while speech tends to include details though ideas are sometimes developed and presented in a confused way. According to the data obtained from students' recordings, the use of cohesive devices such as "and", "but", "then" is recorded as prominent, while the ones used for sequencing ideas (e.g., first, second, lastly, as a result), contrasting ideas (e.g., in contrast, instead, on the contrary, in comparison), comparison (e.g., similarly, likewise, compared with) or adding new ideas (e.g., in addition, furthermore) are used more seldom or missing; moreover, introduction to the topic and overview of what will be discussed are not predominant, sometimes similar ideas (e.g., the fruits' common pests and diseases) are not grouped, and jumping from one idea to another without proper transitions are also recorded. Language functions are sometimes clear, efficient, and appropriate; the students/speakers are typically aware of the collocutors and context, but they occasionally use grammatical but unnatural structures and appropriate cultural references (such as greeting and welcoming the audience, introducing oneself, thanking the audience at the end of the talk). They apply formal and informal registers, though sometimes inadequately. In general, the students/speakers are able to convey the main ideas using communication strategies despite encountering challenges in initiating interaction and responding to conversation turns. Speech is sometimes slow and hesitant, with pronunciation errors occasionally hindering

effective communication. However, non-verbal behavior often involves excessive and inappropriate nodding and inadequate eye direction; gestures are sometimes used to solve language difficulties but often inappropriately and unsuccessfully. Beginner levels of communicative language ability were not recorded. Even though there is a paucity of available empirical quantitative/qualitative research on speaking skills as communicative language ability, the current results are consistent with what was found in Bojović, Palurović, and Tica (2015) and Bojović (2021).

Another issue that the study referred to is the relationship between the levels of foreign language anxiety and communicative language ability. Those participants who experienced higher levels of foreign language anxiety showed lower levels of communicative language ability. In other words, the more advanced the language learner is, the lower the level of language anxiety is. Higher levels of FLA may have a detrimental effect on the students' oral communication skills/speaking performance. This finding is in line with the results obtained in various studies (Philips1992; Aida 1994; Woodrow 2006; Aghajani and Amanzadeh, 2017; Tsang 2022). It is important to note that the speaking ability evaluation was done in the referred studies by using other tool than the Communicative language ability scale. Moreover, the lower the fear of being evaluated when speaking in English as a foreign language, the higher the level of foreign language oral communication skills is, including all constituent competences. Such a result is consistent with the results of previous research (Jibeen, Baig, and Ahmad 2019). Performing an FL oral communication task in a foreign language classroom is considered a situation in which a speaker has little control over communication procedures and their performance is continuously being observed by everyone present in the class (Horwitz and Young 1991; von Worde 2003). It has been argued that individuals with intense levels of FNE are apprehensive about the possibility of making errors and are negatively influenced by public opinion (Watson and Friend 1969, 449). Furthermore, the participants who experienced lower levels of test anxiety had higher levels of speaking communicative ability. Research shows that slightly anxious students performed better on oral tests/language tasks than highly anxious students (Phillips 1992). Finally, the students who manifested higher levels of difficulty and discomfort when speaking in EFL showed lower levels of speaking competence/ability. Stress and tension in any communicative or language-performance situation often result in poor performance, because actors focus more on perceived danger than on their language production (Cicek 2014). People can be reluctant to communicate since they prefer silence over the risk of appearing foolish when they speak (Keaten, Kelly, and Philips 2009, 159). Interestingly, no statistically significant correlations, though positive, were recorded between communication apprehension, on the one side, and grammatical, textual, and functional competence, on the other side. The absence of correlations between anxiety and grammatical competence is corroborated by the study of Balemir (2009) due to the weaker link between grammar competence and public speaking. This could be the avenue for further research in the future.

## 6. CONCLUSION

The study reveals that the undergraduate biotechnology engineering students' levels of FLA were at a medium level and their performance anxieties, i.e. communication apprehension, test anxiety, and fear of negative evaluation, remained at the same level. Moreover, the students' communicative language ability (general communicative ability

and its competences) was at an intermediate level. Also, the students at the higher levels of CLA and its competences had lower levels of the overall FLA (the higher levels of relaxation) than their peers at the lower levels of communicative language ability.

The findings in the study have several possible implications in the classroom. Speaking to an audience is an anxiety-arousing activity (Woodrow 2006; Yan and Horwitz 2008; Liang and Kelsen 2018; Kelsen 2019) and has a debilitating effect on speaking English for some students (Woodrow 2006). It is important that teachers are sensitive to this in classroom interactions and provide help to minimize foreign language anxiety. Cooperative activities have been shown to encourage and support most of the affective factors (Crandall 1999), which correlate positively with language learning, such as reducing debilitating anxiety, increasing motivation, and promoting self-esteem. They would allow the anxious student to practice the target language in a small group. In large groups, students may use pair work, group work, and cooperative activities, to decrease students language anxiety. EFL teachers can organize the activities in groups of three or four students to encourage all members to participate in speaking activities and to benefit from multiple ideas, thus allowing for more face-to-face group interaction. Such activities can provide students with the necessary social skills that facilitate teamwork and enhance communication (Crandall 1999). In teaching EFL speaking, it is advisable to expose students to natural dialogues through role-plays, discussions on video and audio recordings, and films used in the classroom. The selection of triggering materials should be based on the context and topics the students are most likely to encounter in the real world. Prior to the speaking assignment explored in the study, the EFL/ESP classes involved activities based on content-based learning and communicative approach. The learning/teaching process reflected the contents, methods, and procedures characteristic of the biotechnology engineering profession, involving the exposure of students to group, cooperative, and collaborative activities through discussion, quizzes, negotiations, problem-solving, and role-plays. Based on the results of the study, some changes are to be implemented regarding improving students' non-verbal communication skills through group discussions on interpreting body language in various contexts (e.g., job interviews, social interactions, public speaking), providing educational videos on the importance of nonverbal cues, and role-playing exercises to practice nonverbal behaviour (e.g., acting out the appropriate nonverbal cues in different scenarios).

The study has certain limitations that future research could address. The findings in this study were based on a limited number of undergraduate students within a highly specific field of engineering. Consequently, these results cannot be generalized to the entire student population or specifically to those students in biotechnology engineering, and certainly not to the engineering profession in general. Additionally, the FLCAS instrument used in this study relies on self-reported data. This implies that the participants' responses depend on their sincerity, willingness to cooperate in the research, and on their awareness of language anxieties they encounter when speaking in English.

This study furthered the understanding of foreign language anxiety in EFL public speaking. The strength of the present study is that it explores the levels of foreign language anxiety and speaking abilities, conceptualized as communicative language ability, with regard to the performance of a specific speaking task, and this is done in English for specific purposes. As many studies suggest foreign language anxiety goes hand in hand with speaking a foreign language and can affect learners of different proficiency levels. Further research could investigate the effects of foreign language anxiety and performance anxieties on specific language competences in various communicative tasks, disciplinary contents, and age groups.

Additionally, the areas of speaking communicative language ability identified as having a correlational relationship with anxiety can form the basis of an experimental study so that direction of casualty may be determined.

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## REFERENCES

Aghajani Mojtaba, and Hanieh Amanzadeh. 2017. "The Effect of Anxiety on Speaking Ability: An Experimental Study on EFL Learners." *Journal of Applied Linguistics and Language Research* 4, No. 7, 154–164. https://www.jallr.com.

Aida, Yukie. 1994. "Examination of Horwitz, Horwitz, and Cope's Construct of Foreign Language Anxiety: The Case of Students of Japanese." *The Modern Language Journal* 78, No. 2 (Summer), 155-167. http://www.jstor.org/stable/329005.

Arnaiz, Patricia, and Felix Guillen. 2012. "Foreign Language Anxiety in a Spanish University Setting: Interpersonal Differences." *Revista de Psicodidactica*, 17, No. 1, 5-26. https://accedacris.ulpgc.es/bitstream /10553/43211/1/foreign_language_anxiety.pdf.

Bachman, Lyle F. 1990. *Fundamental Considerations in Language Testing*. Oxford: Oxford University Press.

Bachman, Lyle F., and Adrian S. Palmer. 1982. "The Construct Validation of Some Components of Communicative Proficiency." *TESOL Quarterly* 16, No. 4 (December), 449-465. https://doi.org/10.2307/3586464.

Bachman, Lyle F., and Adrian S. Palmer. 1989. "The Construct Validation of Self-ratings of Communicative Language Ability." *Language Testing* 6, No. 1 (June), 14-29. https://doi.org/10.1177/026553228900600104.

Bachman, Lyle F., and Adrian S. Palmer. 1996. *Language Testing in Practice*. Oxford: Oxford University Press.

Belemir, Serkan Hasan. 2009. "The Sources of Foreign Language Speaking Anxiety and the Relationship between Proficiency Level and Degree of Foreign Language Speaking Anxiety." PhD dss., Bilkent University, Ankara, Turkey. https://repository.bilkent.edu.tr/server/api/core/bitstreams/2915e389-bb34-4868- 97a0-74f667724276/content.

Bojović, Milevica. 2020. "ESP Speaking Strategies and Foreign Language Anxiety in Higher Education Classroom." *Annual Review of the Faculty of Philosophy, Novi Sad* XLV, No. 5, 181-203. https://doi.org/10.19090/gff.2020.5.181-203 .

Bojović, Milevica. 2021. "Speaking Strategies and Speaking Ability in ESP Classroom in Higher Education Setting." In *Situating Language Learning Strategy Use: Present Issues and Future Trends*, edited by Zoe Gavrilidou and Lidia Mitits, 37-67. Bristol: Multilingual Matters.

Bojović, Milevica, Lidija Palurović, and Lena Tica. 2015. "Communication Skills in Engineering Profession: Communicative Language Ability in Foreign Languages." *The International Journal of Engineering Education* 31, No. 1B, 377-383.

Canale, Michael, and Merrill Swain. 1980. "Theoretical Bases of the Communicative Approaches to Second Language Teaching and Testing." *Applied Linguistics* 1, No. 1 (Spring), 1-47. http://www.uefap.com/tefsp/ bibliog/canale_swain.pdf.

Cheng, Yuh-show, Elaine K. Horwitz, and Diane L. Schallert. 1999. "Language Anxiety: Differentiating Writing and Speaking Components." *Language Learning* 49, No. 3 (September), 417-446. https://doi.org/10.1111/0023-8333.00095.

Chiang, Yung-nan. 2006. "Connecting Two Anxiety Constructs: An Interdisciplinary Study of Foreign Language Anxiety and Interpretation Anxiety." PhD diss., University of Texas, Austin (USA). https://repositories.lib.utexas.edu/server/api/core/bitstreams/c2bbde32-7f8a-4e17-8055-0a62911026ab/content.

Cicek, Lana. 2014. "Language Anxiety: Causes and Consequences." Diploma Thesis., Faculty of Philosophy, Department of English Language and Literature, Zagreb. http://darhiv.ffzg.unizg.hr/id/eprint/5900/ 1/Language%20learning%20anxiety%20-%20causes%20and%20conse.pdf.

Council of Europe. 2001. *The Common European Framework of Reference for Languages: Learning, Teaching, Assessment*. Strasbourg and Cambridge: Council of Europe and Cambridge University Press. https://rm.coe.int/16802fc1bf.

Crandall, JoAnn. 1999. “Cooperative Language Learning and Affective Factors.” In *Affect in Language Learning*, edited by Jane Arnold, 226-245. Cambridge: Cambridge University Press.

Gordon, Edward G., and Seymour B. Sarason. 1955. “The Relationship between “Test Anxiety” and “Other Anxieties”." *Journal of Personality* 23, No. 3 (March), 317-323. https://doi.org/10.1111/j.1467-6494.1955.tb01158.x.

Ganshow, Leonore, Richard L. Sparks, Reed Anderson, James Javorshy, Sue Skinner, and Jon Patton. 1994. “Differences and Language Performance among High-, Average-, and Low-Anxious College Foreign Language Learners.” *The Modern Language Journal* 78, No. 1 (Spring), 41-55. https://doi.org/10.1111/j.1540-4781.1994.tb02013.x.

Ganschow, Leonore, and Richard Sparks. 1996. “Anxiety about Foreign Language Learning among High School Women.” *The Modern Language Journal* 80, No. 2 (Summer), 199–212. https://doi.org/10.1111/j.1540-4781.1996.tb01160.x.

Gkonou, Christina. 2014. “Sociolinguistic Parameters of L2 Speaking Anxiety.” In *Classroom-oriented Research: Achievements and Challenges*, edited by Miroslaw Pawlak, Jakub Bielak, and Anna Mystkowska-Wiertelak, 15-32. Springer International Publishing Switzerland.

Goh, Christine C. M., and Anne Burns. 2012. *Teaching Speaking: A Holistic Approach.* Cambridge, England: Cambridge University Press.

Gregersen, Tammy, and Elaine K. Horwitz. 2002. “Language Learning and Perfectionism: Anxious and Non-anxious Language Learners’ Reactions to Their Own Oral Performance.” *The Modern Language Journal* 86, No. 4 (Winter), 562-570. https://www.jstor.org/stable/1192725.

Horwitz, Elaine K. 1986. “Preliminary Evidence for the Reliability and Validity of a Foreign Language Anxiety Scale.” *TESOL Quarterly* 20, No.3 (September), 559-562. https://doi.org/10.2307/3586302.

Horwitz, Elaine K. 2010. “Foreign and Second Language Anxiety.” *Language Teaching* 43, No. 2 (April), 154-167. https://doi.org/10.1017/S026144480999036X.

Horwitz, Elaine.K., Michael B. Horwitz, and Joann Cope. 1986. “Foreign Language Classroom Anxiety.” *The Modern Language Journal* 70, No. 2 (Summer), 125-132. https://doi.org/10.1111/j.1540-4781.1986.tb05256.x.

Horwitz, Elaine K., and Dolly J. Young. 1991. *Language Anxiety: From Theory and Research to Classroom Implications*. Upper Saddle River, NJ: Prentice Hall.

Hymes, Dell H. 1972. “On Communication Competence.” In *Sociolinguistics*, edited by J. B. Pride and J. Holmes, 269-293. Harmondsworth: Penguin.

Jibeen, Tahira, Mirza Muhammad Zubar Baig, and Mudassar Mahmood Ahmad. 2019. “Fear of Negative Evaluation and Communication Apprehension: The Moderating Role of Communicative Competence and Extraversion Personality Trait in Pakistani Academia.” *Journal of Rational-Emotive and Cognitive-Behavior Theory* 37 (June), 185–201. https://doi.org/10.1007/s10942-018-0301-y.

Jungheim, Nicholas 2001. “The Unspoken Element of Communicative Competence: Evaluating Language Learner's Nonverbal Behaviour.” In *A Focus on Language Test Development: Explaining the Language Proficiency Construct across a Variety of Tests* (Technical Report #21), edited by Thom Hudson and James Dean Brown, 1-34. Honolulu, HI: University of Hawaii, Second Language Teaching and Curriculum Center.

Keaten, James A., Lynne Kelly, and Gerald M. Phillips. 2009. “Reticence: A Perspective on Social Withdrawal.” In *Avoiding Communication: Shyness, Reticence, and Communication Apprehension*, edited by Jo Ayers, Tim Hopf, James C. McCroskey, John A. Daly, Debbie M. A. Sonandre, and Tanychya K. Wongprasert (3rd ed.), 149–167. Cresskill, NJ: Hampton.

Kelsen, Brent Allan. 2019. “Exploring Public Speaking Anxiety and Personal Disposition in EFL Presentations.” *Learning and Individual Differences* 73 (July), 92–101. https://doi.org/10.1016/j.lindif.2019.05.003.

Lucas, Rochelle Irene, Edna Miraflores, and Diana I. Go. 2011. “English Language Learning Anxiety among Foreign Language Learners in the Philippines.” *Philippine ESL Journal* 7(July), 94-119.

MacIntyre, Peter D. 1995. “How does Anxiety Affect Second Language Learning? A Reply to Sparks and Ganshow.” *The Modern Language Journal* 79, No. 1 (Spring), 90-99. https://doi.org/10.1111/j.1540-4781.1995.tb05418.x.

MacIntyre, Peter D. 1999. “Language Anxiety: A Review of the Research for Language Teachers.” In *Affect in Foreign Language and Second Language Teaching: A Practical Guide to Creating a Low-anxiety Classroom Atmosphere*, edited by Dolly J. Young, 24-45. Boston: Mc Graw-Hill.

Maros-Llinas, Monica, and Maria Juan Garan. 2009. “Effects of Language Anxiety on Three Proficiency-Level Courses of Spanish as a Foreign Language.” *Foreign Language Annals* 42, No. 1 (Spring), 94-111. https://doi.org/10.1111/j.1944-9720.2009.01010.x.

Milanovic, Michael, Nick Saville, Alistair Pollit, and Annette Cook. 1996. “Developing Rating Scales in CASE: Theoretical Concerns and Analyses.” In *Validation in Language Testing*, edited by Alister Cummings and Richard Berwick, 15-38. Clevedon: Multilingual Matters.

Ohata, Kota. 2005. “Potential Sources of Anxiety for Japanese Learners of English: Preliminary Case Interviews with Five Japanese College Students in the U.S.” TESL-EJ 9, No. 3 (December), 1-21. http://tesl-ej.org/ej35/a3.pdf.

Palacios, Lisa Marie.1998. “Foreign Language Anxiety and Classroom Environment: A Study of Spanish University Students.” PhD diss., Austin, University of Texas.

Pichette, Francoise. 2009. “Second Language Anxiety and Distance Language Learning.” *Foreign Language Annals* 42, No. 1 (Spring), 77-93.https://doi.org/10.1111/j.1944-9720.2009.01009.x.

Pawlak, Miroslaw. 2011. “Anxiety as a Factor Influencing the Use of Language Learning Strategies.” In *Extending the Boundaries of Research of Second Language Learning and Teaching*, edited by Miroslaw Pawlak, 149-165. Berlin-Heideleberg: Springer Verlag.

Phillips, Elaine M. 1992. “The Effects of Language Anxiety on Students' Oral Test Performance and Attitudes.” *The Modern Language Journal 76*, No. 1 (Spring), 14–26. https://doi.org/10.1111/j.1540-4781.1992.tb02573.x.

Rodriguez, Maximo, and Orangel Abreu. 2003. “The Stability of General Foreign Language Classroom Anxiety across English and French.” *The Modern Language Journal* 87, No. 3 (Autumn), 365-374. https://www.jstor.org/stable/1192960.

Savignon, Sandra J. 1983. *Communicative Competence: Theory and Classroom Practice*. Reading, MA: Addison-Wesley.

Sparks, Richard L., and Leonore Ganschow. 2007. “Is the Foreign Language Classroom Anxiety Scale Measuring Anxiety or Language Skills?” *Foreign Language Annals* 40, No. 2 (May), 260-287. https://doi.org/10.1111/j.1944-9720.2007.tb03201.x

Tallon, Michael. 2011. “Heritage Speakers of Spanish and Foreign Language Anxiety: A pilot Study.” *Texas Papers in Foreign Language Education* 15, No. 1 (Summer), 70-87. https://nvcsharepoint.napavalley.edu/people/mvillagomez/Documents/article%20for%20final%20540%20paper%202.pdf

Toth, Zsusza. 2008. “ A Foreign Language Anxiety Scale for Hungarian Learners of English”. *WoPaLP* 2, 55-78. http://langped.elte.hu/WoPaLParticles/W2TothZs.pdf.

Tsang, Art. 2022. “The Relationships between EFL Learners' Anxiety in Oral Presentations, Self-perceived Pronunciation, and Speaking Proficiency.” *Language Teaching Research* 0, 0 (Online First, July 2022). https://doi.org/10.1177/13621688221102522

Von Worde, Renee. 2003. “Students’ Perspectives on Foreign Language Anxiety.” *Inquiry: Critical Thinking across the Disciplines* 8, No. 1 (Spring), 36–49.

Watson, David, and Ronald Friend. 1969. “Measurement in Social-evaluative Anxiety.” *Journal of Consulting and Clinical Psychology* 33, No. 4 (August), 448-457. https://doi.org/10.1037/h0027806.

Woodrow, Lindy. 2006. “Anxiety and Speaking English as a Second Language. ” *RELC Journal* 37, No. 3 (December), 308-328. https://doi.org/10.1177/0033688206071315.

Yan, Jackie Xiu, and Elaine K. Horwitz. 2008. “ Learner’s Perceptions of How Anxiety Interacts with Personal and Instructional Factors to Influence their Achievement in English: A Qualitative Analysis of EFL Learners in China.” *Language Learning* 58, No. 1 (March), 151-181. https://doi.org/10.1111/j.1467-9922.2007.00437.x.

Young, Dolly J. 1986. “The Relationship between Anxiety and Foreign Language Oral Proficiency Ratings.” *Foreign Language Annals* 19, No. 5 (October), 439-445. https://doi.org/10.1111/j.1944-9720.1986.tb01032.x.

Young, Dolly J. 1990. “An Investigation of Students’ Perspectives on Anxiety and Speaking.” *Foreign Language Annals* 23, No. 6 (December), 539-553. https://doi.org/10.1111/j.1944-9720.1990.tb00424.x

Young, Dolly J. 1999. *Affect in Foreign Language and Second Language Learning: A Practical Guide to Creating a Low-anxiety Classroom Atmosphere*. Boston: McGraw-Hill.

# ODNOS ANKSIOZNOSTI U UČENJU ENGLESKOG KAO STRANOG JEZIKA I KOMUNIKATIVNE JEZIČKE SPOSOBNOSTI U VISOKOŠKOLSKOJ NASTAVI

*U ovom radu su predstavljeni rezultati istraživanja koje je imalo za cilj da ispita nivoe anksioznosti u učenju engleskog jezika, stepen razvijenosti komunikativne jezičke sposobnosti na engleskom jeziku i postojanje odnosa ove dve varijable. U tu svrhu, u kvantitativno/kvalitativnom istraživanju učestvovalo je 70 studenata osnovnih studija, budućih inženjera biotehnologije, koji*

*uče engleski jezika kao strani jezik struke na Univerzitetu u Kragujevcu, Srbija. Instrumenti korišćeni u istraživanju su Skala samoprocene anksioznosti u učenju stranih jezika, Skala komunikativne jezičke sposobnosti i zadatak koji podrazumeva simulaciju učešća i prezentiranja na engleskom jeziku na naučnoj konferenciji u oblasti biotehnologije. Za obradu podataka korišćene su mere unutrašnje konzistentnosti, pouzdanosti evaluatora, deskriptivne analize i Pirsonove korelacione analize. Dobijeni podaci su analizirani pomoću statističkog softvera SPSS22.0. Rezultati ukazuju na to da su ispitanici pokazali umeren nivo jezičke anksioznosti u usmenom izražavanju u nastavnoj situaciji i srednji nivo komunikativne jezičke sposobnosti. Rezultati takođe pokazuju da postoji pozitivna korelacija između nivoa jezičke anksioznosti i komunikativne jezičke sposobnosti. Ispitanici koji su bili na višem nivou anksioznosti imali su niži nivo komunikativne jezičke sposobnosti.*

Ključne reči: *anksioznost u učenju jezika, biotehnologija, engleski kao strani jezik struke, komunikativna jezička sposobnost*