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DIAGNOSING BARRIERS IN FOREIGN LANGUAGE ACQUISITION

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Abstract

University students of non-linguistic specialties in Russia often have poor levels of foreign language (usually English) proficiency. According to the study of E.A. Kogan just 5-15% of university students have intermediate and upper intermediate levels in English proficiency. Most of the students demonstrate only breakthrough and waystage levels. The problem of low academical success (in spite of student's willingness to learn the language) in foreign language teaching practices and scientific literature is known under different names: underachievement in foreign languages, bad language learners, foreign language learning disability, as well as social-psychological barrier, barrier in foreign language teaching, barrier in trained actions. In our research we suggested the term 'foreign language acquisition (FLA) barrier' which we see as student's individual reflection of objective difficulties (social adaptation, psychological, psychophysiological, didactic, competence, and linguistic) influencing the learning process. The present article introduces a test (web-based questionnaire "Diagnosing barriers in FLA") evaluating students' subjective attitude towards FLA difficulties – that is the level of FLA barriers. The questionnaire can be used for Russian speaking students over 15 years old, learning English in a group outside the language environment. The test was successfully validated: it was completed by 100 university students of non-linguistic specialties; the correlation between the test and criterion (effectiveness of foreign language learning) is 0.81.

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1. Introduction

Foreign languages are an obligatory subject at all Russian schools and at most universities. When they reach the university stage students usually have 7 to 11 years of language education past them depending on at which grade at school they took up the language course (usually 2nd or 5th grades). However, it is not a secret that most university students of non-linguistic specialties in Russia have poor levels of language proficiency (Bryuchanova, 2008; Dunets & Nikonov, 2017; Koposhilko, 2014; Kogan, 2020). According to the research by Kogan (2020) more than half of Russian students at universities have a low level of language proficiency in speaking, reading and aural comprehension (breakthrough and waystage levels – CEFR, 2018). Only small part of tested students (5-15%) had necessary skills for intermediate and upper intermediate levels (p. 207). The problem of students' low language proficiency remains actual in spite of attempts to solve it such as: international internships for FL teachers, teachers visiting each other lessons as a part of experience exchange (Shapkina, 2016), redistribution of learning load at university (Egorova et al., 2018), level approach (Beiskhanova & Svich, 2017), integrated approach (Lobkova & Klimkovich, 2009), communicative approach (Svirina, 2008), Berlitz method (Naydenova, 2007) etc.

2. Problem Statement

The problem of low academic success in foreign languages (FL) in scientific literature is presented with different terms: underachievement in FL (Pimsleur et al., 1964), bad language learners (Rubin, 1975; Stern, 1975), low foreign language aptitude (Carroll, 1962), foreign language learning disability (Dinklage, 1971), types of language proficiency (Belyaev, 1965). Russian-language literature in this context often uses the term *barrier*: *социально-психологический барьер* (social-psychological barrier) (Parygin, 1999), *барьеры в педагогическом взаимодействии* (barriers in pedagogical communication) (Zimnyaya, 1997), *психологический барьер* (psychological barrier) (Chaplina, 2006; Verbitskaya, 2003), *барьер в обучении ИЯ* (barrier in FL teaching) (Redkina & Abaldina, 2010), *барьер в выполнении усваиваемых действий* (barrier in trained actions) (Gubareva, 2001). These terms describe different aspects of the learning process: student-teacher relationships, psychological readiness of a student for learning FL, problems of teacher's professional self-actualization, etc.

A research based on descriptive-analytical, statistical, simulation and field enumeration approaches led us to the following definition of the **foreign language acquisition (FLA) barrier**: student's individual reflection of objective difficulties influencing the learning process (Brem & Mandrikova, 2021). A **difficulty** is understood as a state of high intellectual stress; energy and labor input for implementing, creating, understanding something (Morkovkin et al., 2016). The following **attributes of the FLA barrier** were suggested:

- high level of anxiety;
- student's dissatisfaction with his/her academical performance;
- frustration, desire to quit the language course;
- slow or no progress in FL learning;
- student's negative attitude towards learning difficulties.

We also suggested a **typology of FLA barriers** that contains 6 positions: social adaptation, psychological, psychophysiological, didactic, competence, and linguistic barriers.

As is known, there are several scales and methods for measuring different variables connected with or influencing success in FL learning: methods for exploring learning strategies (e.g., think-aloud protocol, interview, diaries, computer-based methods etc. (Macaro, 2001)), scales of FL proficiency (American Council on the Teaching of Foreign Languages, 2012; Common European Framework of Reference for Languages, 2018; Canadian Language Benchmarks, 2012; Interagency Language Roundtable Scale), tests measuring foreign language aptitude (e.g., Modern Language Aptitude Test, Pimsler Language Aptitude Battery), etc.

3. Research Questions

Since FLA barriers are an integral component of FL learning, we think, a tool evaluating them would be of a great methodological and scientific value. The usage possibilities of such tool could include: identifying, monitoring and targeted correction of student's FLA barriers, investigating the relationships between FLA barrier and other psychological and lingua-didactic variables (such as age, learning strategies, language environment, FL proficiency, duration of FL education etc.).

4. Purpose of the Study

The purpose of the study is to create a web-based questionnaire for evaluating FLA barriers of Russian students learning English.

5. Research Methods

Questionnaire development included 7 steps:

1. Describing the main theoretical concept.
2. Describing the main attributes of the questionnaire.
3. Developing the bank of test items.
4. Assembling the questionnaire version for approbation.
5. Approbation of the questionnaire items.
6. Creating procedural instructions for the user and algorithms of data proceeding.
7. Checking criterion-related validity of the questionnaire.

Theoretical basis for the test development (and the bank of test items) was formed with:

- studies on underachievement and low academical success in FL (Belyaev, 1965; Carroll, 1962; Dinklage, 1971; Ganshow et al., 1998; Pimsleur et al., 1964; Rubin, 1975; Stern, 1975),
- studies devoted to the problem of barriers in education, psychology and FL teaching (e.g. Barvenko, 2004; Gubareva, 2001; Parygin, 1999; Redkina & Abaldina, 2010; Zimnyaya, 1997),
- typologies of barriers in learning and teaching foreign languages (Abaldina, 2010; Barvenko, 2004; Redkina & Gubareva, 2001; Svalova, 2014; Verbitskaya, 2003),

- articles in scientific magazines describing difficulties of students learning foreign languages in Russia (68 items).

Additionally, we carried out individual interviews with foreign language teachers to collect more detailed and personalized information on the subject of FLA barriers. 16 English teachers working with adults (15+) at Russian universities and language schools were asked (in form of open responses) to describe a case(s) of “bad language learner(s)” from their teaching experience. The teachers did not know about our typology of barriers and were not asked to match any barriers to certain types. They shared with us stories of 31 “bad language learners” where we have detected 69 FLA barriers. Interviews with teachers provided the pilot statistics of FLA barriers and were used in building the bank of test items.

The procedure of questionnaire validation was as follows:

- To check criterion-related evidence of validity the test scales have been correlated with effectiveness of foreign language learning. In order to measure the criterion, we used the test “Self-evaluation of the effectiveness of foreign language learning” (Brem, 2021).

100 university students of non-linguistic specialties completed the tests “Self-evaluation of the effectiveness of foreign language learning” and the new questionnaire.

6. Findings

The web-based questionnaire “Diagnosing barriers in FLA” (Brem & Mandrikova, 2021) is designed for the age category of 15+ and can be used at all levels of the education system for Russian speaking students learning English in a group outside the language environment. The goal of the test is evaluating students’ subjective attitude towards FLA difficulties.

The questionnaire consists of 6 scales that represent 6 types of barriers (Table 01).

The questionnaire items are presented with evaluative statements with which respondents can agree or disagree with a different degree of confidence: wrong – probably wrong – probably right – right.

The questionnaire has a numerical scale where the general level of FLA barriers can be measured from 1 to 4 points (Table 02).

The questionnaire was successfully validated (Table 3). The correlation with the criterion made 0.81 which is considered as an excellent evidence of criterion-related validity (EFPA, 2013).

After the questionnaire validation, we took one more look at the interviews with teachers carried out on the preparation stage and compared them to the test results (Figure 01).

Table 1. Scales content: questionnaire “Diagnosing barriers in FLA”

Title of scale	Scale content
Psychological barriers	Outwardly reserved character; fear of mistakes; fear of public prejudice; low motivation; inability to take criticism; heightened anxiety; doubts, hesitation, lack of self-confidence; skepticism towards possibility of learning FL, low self-esteem, feel of embracement in front of teachers (as a social role).
Didactic barriers	Number of students in FL group exceeds the optimal for implementing teaching goals, low quality of textbooks, low competence of teacher: lingua-didactic, communicative, language proficiency; mistakes of choosing teaching methods, mistakes in using evaluation methods, inability to motivate students.
Social adaptation barriers	Low priority of the FL in student’s hierarchy of learning values, student’s inability to combine other social roles with learning a FL, lack of language environment. Learning schedule is more intense then suggested limitations (maximum learning hours per day and per week, length of breaks etc.), uncomfortable psychological climate in the group, lack of

	positive models in the close university circle, lack of family support, physical exhaustion.
Psychophysiological barriers	Low articulatory sensitivity, diseases of articulatory system, low phonetical coding ability, bad language intuition (native language), low ability to use the FL directly without translating from the native language, low ability to change words according FL grammar rules and assemble them into utterances, bad memory, low IQ level, general health problems.
Competence barriers	Low competence of students in using strategies of working with text, compensatory strategies, communicative, metacognitive, affective, memory strategies, strategies for learning grammar material, absence of previous FL learning experience, low pluracultural competence.
Linguistic barriers	Specifics of English, the degree of its similarity to Russian language.

Table 2. Interpretation of test results

Points	Level of FLA barrier	Results interpretation
3.6-4	low	FLA process is successful with obvious progress. Student faces only minor difficulties which he/she is able to handle with. Student's attitude towards learning difficulties is adequate.
2.6-3.5	medium	FLA process can be described as within the norm; however, student is unable to achieve his/her true learning potential. Certain difficulties make student concerned and dissatisfied.
1.6-2.5	high	FLA process is not quite successful, student hardly copes with learning difficulties; the difficulties are taken mainly negatively. Permanent learning frustration significantly lowers student's further motivation.
1-1.5	very high	FLA process is insecure, student faces many difficulties which make him/her feel strongly dissatisfied with the learning experience. Pessimistic attitude towards learning difficulties – student does not take the initiative in learning. No academical progress, high risk of dropping from (quitting) the course.

Table 3. Criterion validity of the questionnaire “Diagnosing barriers in FLA”

Self-evaluation of the effectiveness of foreign language learning	Diagnosing barriers in FLA	Criterion-related validity
2.322561167	2.860169042	0.812036328

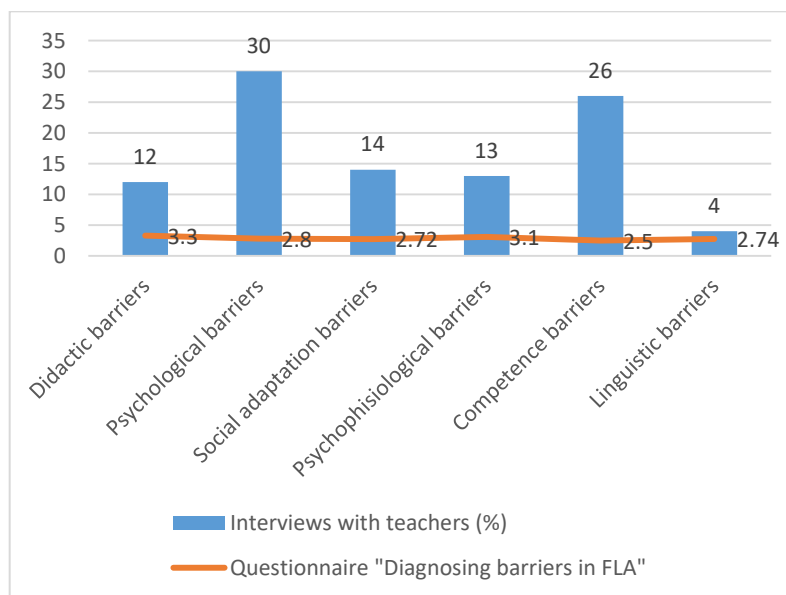


Figure 1. Distribution of barriers in the interviews with teachers (in %) and in the test “Diagnosing barriers in FLA” (test results presented in the scale from 1 to 4, the higher the rate is, the lower the level of barriers is)

Contrasting the two methods was not meant as a validation procedure: clearly the interviews served a different purpose and did not meet the validation requirements. However, the results of the

interviews and the test had obvious similarities. In both statistics, competence barriers took the top, and psychophysiological and didactic barriers - the bottom positions. Comparing the interviews to the test made us notice some differences between the teachers' and students' views on the problem of barriers. Teachers mentioned low motivation of students and their irresponsible attitude towards learning much more often than students themselves did, whereas students mentioned linguistic barriers more often than teachers did (teachers probably considered linguistic difficulties as self-evident). As a result, linguistic barriers in the interviews were presented with only 4%, whereas in the test they gained 2.74 close to social-adaptation barriers (2.72), and psychological barriers gained less points in the test than that in the interviews.

Contrasting the interviews with the questionnaire revealed certain advantages of the last:

- possibility to evaluate the actual FLA barrier of students (and not some past teaching experiences);
- possibility to test a big group of respondents within short amount of time (compare: interviews are labor-intensive and time consuming);
- giving opportunity to students to evaluate their learning process;
- method does not need any preparation, the results do not depend on respondents' ability to describe the problem (e.g., the teachers could have paid too much attention to motivation problems leaving out of sight linguistic barriers; not all teachers were able to provide a sophisticated analysis of their students' problems);
- results are easy to process, the interpretation of results does not depend on the competence of researcher.

7. Conclusion

A barrier in FLA in our research is understood as subjective reflection of objective difficulties by students. We suggested a typology of FLA barriers that consists of 6 positions: social adaptation, psychological, psychophysiological, didactic, competence, and linguistic barriers. Within the present research we created a web-based test (questionnaire) for evaluating the level of FLA barriers of Russian speaking students learning English in a group: "Diagnosing barriers in FLA". The test is aimed at the age category of 15+. The goal of the test is to collect and measure students' subjective attitudes towards difficulties accompanying the FL learning process. The questionnaire consists of 6 scales representing the 6 types of FLA barriers.

The test items are represented with evaluative statements; a respondent can express his/her personal opinion to a statement with a different degree of certainty: wrong – probably wrong – probably right – right. The test results are interpreted in the scale from 1 to 4, where '1' means 'very high level of barrier' and '4' means 'no barrier'. The level of barriers can be measured for each scale; the sum of scales results represents the general level of student's FLA barriers. The pilot test was completed by 100 university students of non-linguistic specialties and correlated with effectiveness of foreign language learning (measured with "Self-evaluation of the effectiveness of foreign language learning"). The criterion-related validity made 0.81 which can be considered as excellent (EFPA, 2013).

Within our experiment we also compared two methods of diagnosing FLA barriers: interviews with teachers and questionnaire for students. This comparison helped us find some differences between teachers' and students' attitudes towards the barriers: e.g., students more often complain about linguistic barriers than teachers; teachers on the other hand considered low motivation and irresponsibility towards learning the most often barriers in FLA. Contrasting the two methods has shown the following advantages of the questionnaire compared to the interviews: higher objectiveness of the questionnaire (interview results depend on the ability of respondents to describe problems and the competence of researcher in asking questions); saving time for processing results, possibility to evaluate the actual barrier of a student (group of students) (and not the past teaching experience), collecting information from students' and not just teachers' perspective.

Further possibilities of using the test we see in:

1. Studying the differences in FLA barriers of different age groups of adults. The research questions may include: Does the general level of barriers differ for different age groups of adults? What types of barriers prevail in each age group?
2. Studying the correlation between FLA barriers and learning strategies.
3. Studying the differences in FLA barriers in and outside the language environment.
4. Studying FLA barriers at different levels of language proficiency.
5. Studying FLA barriers of students within different duration of language education.

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