



INVESTIGATING THE CORRELATION BETWEEN THE ROLE OF DIGITAL LABORATORIES AND UNDERGRADUATE STUDENTS' ATTITUDE TO LEARNING FRENCH IN NIGERIA FRENCH LANGUAGE VILLAGE (NFLV)

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Abstract

The study sought to investigate the correlation between the role of digital laboratories and undergraduate students' attitudes to learning French in the Nigeria French Language Village (NFLV). The French language is one of the languages in the global community that deserves serious attention not only because it is a language of one of the former colonial masters in Africa, but because it could fortify African nations. It is a language of culture and commerce, educational progress, prestige, labour and good status of Nigerians. Nigeria is bordered by French countries vis: Republic of Benin, Niger and Cameroon. In 1961 at the Yaoundé Conference, French was accepted to be a school subject and should be introduced, taught, and examined as teaching school discipline in Anglophone countries, including Nigeria which could improve international relations for the country. Both France and Nigeria signed cooperation and agreements. By September 1991, the NFLV Badagry came into existence and the first set of students was admitted on 6th January 1992. This study employs two research questions using a descriptive survey design. The study population consists of French undergraduate students in Lagos State. Four institutions were randomly picked out of which one hundred students with ten French lecturers in NFLV were randomly selected for this study. Identified gaps include available facilities concerning the population served and students' attitudes to learning French. It was concluded that undergraduate students' ability to use digital laboratory equipment is a good exposure to strengthen students' learning of the language. This paper recommends providing better digital laboratory facilities, integrating the right attitude into undergraduate students, and a benchmark based on the school population.

Keywords:

French, Technological Facilities, Students' attitude, Digital Laboratory, Higher Institutions.

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Introduction

Language is considered indispensable in human communication and interaction, the study of language and culture has a lot to do with the formation of linguistic and cultural knowledge and gives students the experience of sociocultural and intercultural communication (Vetchinova and Shishova, 2020). Language is a means of communication, the importance of communication among humans is inevitable, especially in human daily interactions. Communication can be verbal, read or written (Parmawati and Inayah, 2019). The central purpose of language could come in various dimensions, majorly, it could serve as a link for international unity and global peace. Awareness of the cogency of language could arouse in humans, the desire to understand some languages and the culture that surrounds them. This could propel the people's attitude toward mastering the nitty-gritty of the language to bring about effective social interaction. Acquisition of skills in the language of communication is pivotal to the peace of the global community. A clear understanding of the language of communication could lead to negative reactions among people. It has been clearly expressed that there is a reliable association between maltreatment and language skills (Lum, Powell, and Snow, 2018). The functions of language in society cannot be underscored as a vehicle of interaction, language functions as an instrument of communication, and it functions as a cultural identity. The value of language is strongly felt in every sphere of life such as relevancy in what matters for human achievement thus calling for peoples' attitude towards learning a new language.

Any form of aggression by any of the speakers of a language could mar or heighten people's attitude towards one another and towards learning how to speak the language in question. Language is a weapon with which without it, politics and social policy can never exist. Language plays a crucial role in the social, political and economic life support of the people in a given geographic entity. Language could be used to solve real-world problems (Wei, 2018). To learn a language is to reach out to others and maintain a variety of social bonds. Language is a system for the transmission of meaning through sounds.' Language is man's primary mode of expression. Effective use of language could bring about good interactions among peers. With the right language of communication, goals can be expressed through a variety of forms of linguistics and could be used to express intention (Bonvillain, 2019).

In Nigeria, the role of the French language cannot be underrated because the country is geographically bounded by francophone countries. In the North is the Republic of Niger and Chad, in the East, there is the Republic of Cameroon, and in the West, there is the Republic of Benin. In this kind of situation, acquiring knowledge of the French language by Nigerians will make Nigerians and Francophone neighbours work effectively together, especially in the areas of science and technology as well as pursuance of international peace. This among other reasons called for the inclusion of French in the Nigeria school curriculum, by 1996, a new status was given to the French language in Nigeria, and French was declared as the nation's second official language (Faniran, 2017). Henceforth Nigerian government encourages its citizens to learn French in schools so French language undergraduate students were made to travel to France or any Francophone country for a year of mandatory French Language Immersion courses.

But in the 1980s, Nigeria experienced a serious economic recession, and since then it became difficult for most parents to send their French undergraduate children for this immersion course abroad (Offorma, 2012). This eventually called for an alternative solution, which was the establishment of Nigeria's French Language Village. Given this, the village was established for the teaching and learning of French. The Nigeria French Language



Village was established in Badagry, in September 1991 and first opened its door to the first set of students on 6 January 1992. Apart from regular tertiary students some government officials and individuals always enrol for French studies in NFLV.

Language has a big role in human inclination and interaction, through it all forms of human character as well as attitude could manifest which could either be a positive or negative attitude. Man has the right to choose to learn whatsoever the same goes for the learning of language. Learning other people's languages rests solely on people's attitudes. Folorunso, (2016) noted that man has the choice of picking up a language other than his mother tongue and mastering it to a good level of competence but this depends on individual attitude towards that. However, it is also possible to propel a man to develop a positive attitude towards learning a course or a subject possibly through positive reinforcement or comfort, hence technology might be relevant in this dimension. Johnson, Jacovina, ERussell, and Soto, (2016) stated that intelligent tutoring systems are required to bring students to have independent thought to propel students to individualized instruction, and to aid students to make progress within any system.

Technologies should be a strong force and innovation in improving instruction, especially that of would-be teachers and higher educational systems in general. In tertiary education, technologies should be a strong dynamism and revolution for improvement, the higher educational system needs to see instructional technologies as the basis for designing the content and delivery of courses. They could serve as links to digital technologies and the digital economy for various institutions. The question to arises for educators in the face of the digital turn is whether academics are responsible for driving change and innovation using technology, or are they the inhibitors? (Watty, McKay, and Ngo, 2016).

Instruction encompasses teaching and learning, without effective instruction the expected change would be jeopardised therefore there is the need to include technologies in the mode of instruction. Watty, McKay, and Ngo (2016) opined that digitalisation should provide additional resources to support interested instructors. In the technologized classroom environment, students are not only guided through digital learning activities by the instructor but are guided to take a leadership role in the development and application of learning and give them enough support. Instructional technologies ought to be helpful and powerful skills, especially in the pedagogical world. If the opportunities are provided teachers ought to be the initiator and model for learners so that they can easily adjust to fully utilising digital technologies. This will open up students to be thoughtful, flexible, sensitive...and mature enough to accept this era of digitalization. Therefore it is expedient to realise that attitude and technologies are required in learning a non-formal language.

Students' Attitude to Learn French

Talking of students' attitudes, it could mean that students' responses are either negative or positive to something they were asked to do. The percentage of correct responses when the students solve problems could be characterised by some factors like group work or solitary work. Positive responses could be consistent when an appealing approach is used (Rathner, and Schier, 2020). A student with a good attitude is likely someone who has a cooperative spirit in terms of complying with what they are asked to do by the teacher. Maske, Kamble, Kataria, Raichandani and Dhankar, (2018) stated that the study conducted on feasibility, effectiveness, and students'



attitudes toward using WhatsApp in histology teaching and learning showed that students had a more positive attitude toward WhatsApp learning than traditional teaching-learning method.

Students' attitudes are one of the challenges teachers have to wrestle with within the classroom. A student's attitude is the tendency to respond a certain way towards something. Sun, Hu, and Zhou, (2022) stated that to improve the quality of classroom programming instruction that incorporates ICT skills, instructors' attention should be paid to changing students' internal attitudes in the learning process more than just improving external teaching methods.

Naturally, a student's response can be on a continuum of positive to negative or good to bad, pressure to meet psychological needs could be frustrating thus there should be a serious move to provide the avenue for satisfying. To correct psychological needs there should be an indication model to ensure that need satisfaction and frustration are part of the same continuum and their apparent differentiation is due to method effects (Longo, Alcaraz-Ibáñez and Sicilia, 2018).

Attitudes are part of life but how we respond is up to us. Whether a student has a positive or negative attitude, it is up to the teacher to find ways to work with the student. With good and constant exposure to diverse students' character and their individualism, it is easy for teachers to develop more positive attitudes, especially in the process of instruction (Abacioglu, Volman, and Fischer, 2020).

Learners need to possess a positive attitude to acquire knowledge without it educating them would be a waste of time. There are a series of impacts that education can achieve with good quality education. it becomes so easy to intermingle with other people nationally or internationally and this could culminate in the standard of having the kind of education that would submerge in learners' mentality, the reality of positive global rapport. Wan and Sirt (2018) stated that students of higher education have a major role to play in this regard.

With the right attitude, learners would be actively involved, and manifest the potential to have the required strength, self-control, personality, intelligence, noble character, and the skills needed for themselves, their institution, society and the whole world. Lyer, Bharadwaj, Shetty, Verma, and Devanathan (2022) stated that education is a formidable weapon for nation-building. Therefore, the stakeholders in the education line should make conscious and deliberate efforts to reinforce students' attitudes toward learning and the learning process should be such that it would produce elegant people.

The Utilisation of Digital Laboratories to Learn French

The language laboratory plays an important role in the language learning process. As it is a technology aid for learning, it has several advanced facilities that can help a student learn a language with proficiency to communicate (Kavitha, 2012). A language laboratory provides for a well-designed and carefully produced pattern of drills and thus relieves the teacher of endless repetition of patterns. The language laboratory allows much time for oral and auditory experiences. It affords the opportunities for students to hear the language spoken by any native and to practise speaking in the language themselves (Mercy, 2016). In the laboratory, students are to be guided through a series of activities by the instructor, and they ought to be allowed to take a leadership role in the development and application of learning.

A language laboratory is a form of the classroom that facilitates the teacher's duty by creating a more attractive



learning environment for students giving students the freedom to practise at a more convenient time and giving them an opening to do independent research. Language labs are highly valued because they offer students an organised technological environment that is effective, and reliable and assists in correcting students' errors. Iswara, Julia, Supriyadi, Sopandi, Hartati, and Rahmawati, (2019) claim that the purpose of the laboratory session is to acquire the language used by students and correct their mistakes.

Through language, laboratory opportunities should be created for individual students to manifest his or her skills. In it, there should be the existence and prevalence of widespread individual differences. The current trend in instruction is that learners are required to make instruction interactive and engaging. Learners should not sit idly by while the teachers provide everything in instruction, they are to acquire skills which not only make them to be relevant in the process of instruction but to be able to interact effectively. Neokleous, (2019) thinks that a specific aspect of technology that students highly valued was the opportunity they provided in helping them to interact with their classmates in a way that traditional lessons do not. They need to show some quality of preparation and proficiency to make significant contributions to the process of using a language laboratory (Dyson, Chang, Chen, Hsiung, Tseng and Chang, 2016).

Additionally, students have to reconsider their concept of “school” as they assume an active role in the learning process. In the past, this might not be the normal practice of instruction. But today, the challenge is that students are required to take the responsibilities of being responsible and to co-construct knowledge and content with peers and the teachers, or lead the class. They need to realise the *modus operandi* of their generation and make themselves adjust to the revolution of the modern learning environment. Poláková and Klímová (2019) stated that it is important to create learning environments that meet the learning needs and preferences of a specific generation to make the learning process more productive.

STATEMENT OF THE PROBLEM

English language is not the only official language spoken in Nigeria. In 1996, the late General Sani Abacha declared French as Nigeria’s second official language. It was argued that learning a second official language is not necessary and is a pure waste of time, despite these diverse opinions French Language has been made “compulsory” in the curriculum of primary and secondary schools across the country. French is also being taught at the tertiary level in the country.

This development is a piece of evidence that bilingualism or multilingualism is very important. All the neighbouring countries of Nigeria speak French as the official language. These countries have at least two international languages as their official languages, others have three to four. For Nigeria to join her counterparts in the trend of bilingualism, which without doubt, the French language is the most feasible of all. It must be understood that being bilingual has a positive effect on people’s intellectual growth and enhances mental development. It opens the door to other cultures and helps people understand and appreciate people from other countries. It could open the door for the existing political system to interact better and exchange better knowledge with their Francophone counterparts, especially without interpreters. It could increase job opportunities in many careers where knowing French is a real asset.



This kind of step of having an additional international language will make Nigerians widen their horizon in the world labour market. A lot of internationally based companies, like Total, Exxon Mobil, Air France and KLM will get required qualified workers within the country from time to time especially workers who have additional ability to speak French. Though the dearth of these competencies in speaking French had always posed a great challenge to Nigerian applicants who were limited by their knowledge of only the English language, this could be due to the students' attitude towards learning French or the strategies being used in the past to instruct students. In this age of digitalisation, education has brought a new dimension into the mode of instruction. In language instruction, a language laboratory provides for a well-designed and carefully produced pattern of drills and thus relieves the teacher of endless repetition of patterns this could enhance students' attitude towards learning French. Language laboratories are becoming highly valued because they offer students a structured learning environment that is successful and reliable. This could help tertiary institution students who had come for training in the Nigeria French village to understand and speak the language better, and students' attitudes could be improved generally towards learning French. It is against this background that the researcher embarked on the study to investigate the correlation between the role of digital laboratories and undergraduate students' attitudes toward learning French in Nigeria French Language Village (NFLV)

Purpose of the Study

The main purpose of the study is to investigate the correlation between the role of instructional technologies and undergraduate students' attitudes to learning French in Nigeria's French Language Village. Other specific purposes are

- To investigate the correlation between undergraduate students' attitudes and learning of French in Nigeria's French Language Village.
- To investigate the correlation between undergraduate students' usage of digital laboratories and learning of French in Nigeria's French Language Village.

Research Hypotheses:

- There is no significant correlation between undergraduate students' attitudes and learning of French in Nigeria's French Language Village.
- There is no significant correlation between undergraduate students' usage of digital laboratories and learning of French in Nigeria's French Language Village.

Significance of the Study

- The findings of this study will benefit those who were involved in counselling French undergraduate students at different levels of education and also professionals who are using it for special purposes in their different fields of work.
- To the lecturers, this study will give an insight into the attitude of French undergraduate students
- To the Security Agencies, it will give them an idea of what to do on security matters, especially on how to interact with their colleagues better when they are deployed to participate in different security peacekeeping operations in international service specifically within the UN ambit or West Africa sub-region.



Methodology

In a bid to achieve a detailed and effective outcome for this study, the research design employed in this project is descriptive using a survey method where a portion of the population was sampled. It is believed that survey researchers reveal vital information that could call for quick actions by all stakeholders. The population of interest in this research consisted of Undergraduate French students from 4 different universities in Educational Districts IV and V of Lagos State. Four (4) different institutions were randomly selected from Lagos State higher institutions that came for mandatory programs in NFLV. A total number of hundred (100) French undergraduate students both male and female and ten (10) French lecturers of the institution, totaling 110 randomly selected samples for the study.

The research instrument for data collection used for this study was two self-developed questionnaires for students and lecturers. The items of questionnaires were designed to look at the objective of establishing Nigeria's French Language Village about the attitude of French undergraduate students as well as the students' usage of digital laboratories and learning French. Each of the questionnaires was divided into 2 sections: Section A composed of personal data such as age, gender, and course of study. Section B consisted of questions on different aspects such as the attitude of the visiting French language students and the use of instructional technology in NFLV. The items of the questionnaires are made up of 8 items and respondents choose suitable options for them by ticking as appropriate to their responses. The scale of responses is 4 Likert Scale which is: Strongly Agreed-(SA) Agreed-(A), Disagree-(D) and Strongly Disagree-(SD).

To establish the face and content validity of the instrument the questionnaires were presented to experts in the field of education who made necessary corrections and amendments before administration. To obtain the reliability of the instrument, the test-retest method was used. This was carried out by selecting Ten (10) respondents from other states within the NFLV. The test of reliability was carried out through the usage of the Pearson Product Correlation Coefficient (PPMCC). The reliability was found to be 0.70 and 0.75 respectively. This shows us the correlation between the data collected during the first and second administration of the instrument which determines the reliability of the research instrument. After ensuring the reliability and validation of instruments, the data collection was done in this manner, firstly the researchers briefed the respondents on the purpose of the research and gave guidelines regarding the completion of the questionnaires. The respondents chose the appropriate response that best represented their opinions on the questionnaires and was collected on the spot.

Findings/Results

The responses to the data collection instrument were analysed using descriptive statistics which is the chi-square method as a statistical tool. This was considered appropriate because of the necessity to measure the statistical correlation of the tested hypotheses at a 0.5 level of significance.



Table 1: Chi-square (X^2) analysis showing the correlation between undergraduate students' attitudes and learning of French in Nigeria's French Language Village.

Variable	N	df	SL	X^2 cal	X^2 tab	Decision
The attitude of French undergraduate students to learn French	110	9	5	51.6692	16.919	Rejected

Source (Result from collected data)

The tabulated value of a Degree of Freedom (DF) is 16.919, the calculated value of 51.6692 is greater than the table value of 16.919 therefore, the null hypothesis (H_0) is rejected. This shows that there is a significant correlation between undergraduate students' attitudes and learning of French in Nigeria's French Language Village.

Table 2: Chi-square (X^2) analysis showing the correlation between students' ability to use digital laboratory equipment and students' learning.

Variable	N	df	SL	X^2 cal	X^2 tab	Decision
Student's ability to use digital laboratory equipment	110	9	5	15.8163	16.919	Accepted

Source (Result from collected data)

The tabulated value of a Degree of Freedom (DF) is 16.919, the calculated value of 15.8163 is lesser than the table value of 16.919 therefore, the null hypothesis (H_0) is accepted. This shows that there is a significant correlation between students' ability to use digital laboratory equipment and students' learning.

Discussion

The test of the hypothesis shows that there is a significant correlation between undergraduate students' attitudes and learning of French in Nigeria's French Language Village. This finding was buttressed by Nimako, (2020) and Faniran (2016) both favoured the adoption of French as the second official language for the country as this would make those who did not border to learn French change their attitude towards learning the language. As technology advances, people find learning more entertaining, this could also count in people's attitude towards language



learning and acquisition. Learners' attitudes could be made positive, especially when there is innovation. Riley, Hattaway and Felse, (2017) stated that the positive change in attitudes toward the introductory lab lecture can be attributed to the additional supplementary teaching tools that were added to the presentation.

Test of hypothesis two shows that there is a significant correlation between students' ability to use digital laboratory equipment and students' learning. This finding was supported by Strand, Gulbrandsen, Slettebø, and Nåden, (2017) who stated that digital recording enhances the student's awareness when acquiring new knowledge because it activates cognitive and emotional learning. It was also supported that electronic lab notebooks enabled superior data integrity, simplified information exchange, and allowed real-time and remote monitoring of experiments (Riley, Hattaway and Felse, 2017).

It should be realised that language learning is quite different from learning any other subject. It is not limited to writing an examination paper and getting marks or awards. The four skills: listening, speaking, reading, and writing have to be put into practice since having the ability to communicate well is the central purpose of learning any language. Communication entails the student's capability to listen attentively to the exact meaning and to respond with appropriate words and with clear pronunciation (Akmal Khonov, 2022).

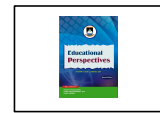
There are language learners who learn how to read and write fast. However, if they are asked to talk, they can barely pronounce the words correctly. This is true, especially in learning a foreign language, this is the reason why language laboratories are essential. Dayag, (2018) thinks reaching out to students is convenient and faster by creating virtual learning environments, by maintaining an active group, teachers can easily reach out to their students, particularly to help them learn the language better. With a language lab, all students in the class can work on different levels, in different groups, self-access, and speak simultaneously without distracting each other regardless of the class size Patel and Mahichchha, (2015). Such works can be played back to the students to practise and improve and the use of the language lab could allow students to have access to information quickly and easily. It could help in developing many types of classroom exercises, personalising the learning process, and encouraging creativity, innovation and training. Language laboratories also favour a high degree of skill development, team and collaborative work eliminating socio-temporal barriers (Baxodirovna (2022), Patel and Mahichchha, (2015) Al-Mahrooqi and Troudi, (Eds.). (2014).).

Conclusion

- It was concluded that students' attitudes should be connected to the learning of the French language, hence they might not acquire the required knowledge as expected.
- In addition, undergraduate student's ability to use digital laboratory equipment is a good exposure to strengthen students' learning of the language.

Implications

- This implies that the required components that are necessary to master a language will be given serious priority. It is not just about being able to read and understand certain words. It also entails mastery of the spoken language.
- With a language lab, all students in the class can work on different levels, in different groups or self-access,



and speak simultaneously without distracting each other regardless of the class size. Students' practice would improve and the use of the language lab would allow students to have access to the information quickly and easily.

Recommendations

The following recommendations were made:

- The authority at the Nigeria French Language Village with adequate support from the Nigerian government should provide a conducive environment to encourage students to learn French.
- The government should provide the required modern resources such as the building of infrastructures, like good digital language laboratory equipment and more digitised lecture rooms should be provided to improve and better the attitude of visiting French undergraduate students towards their studies in return.



References

- Abacioglu, C. S., Volman, M., & Fischer, A. H. (2020). Teachers' multicultural attitudes and perspective-taking abilities as factors in culturally responsive teaching. *British Journal of Educational Psychology*, 90(3), 736-752.
- Akmalkhonov, S. F. A. (2022). The History of Using Digital Technologies in a Didactic Way. *Academic Research In Educational Sciences*, 3(12), 197-201.
- Al-Mahrooqi, R., & Troudi, S. (Eds.). (2014). *Using technology in foreign language teaching*. Cambridge Scholars Publishing.
- Baxodirovna, T. P. (2022). Using Innovative Technologies in Teaching and Learning Language. *Galaxy International Interdisciplinary Research Journal*, 10(3), 207-210.
- Bonvillain, N. (2019). *Language, culture, and communication: The meaning of messages*. Rowman & Littlefield.
- Chan, C. S. (2019). Long-term workplace communication needs of business professionals: Stories from Hong Kong senior executives and their implications for ESP and higher education. *English for Specific Purposes*, 56, 68-83.
- Dayag, J. D. (2018). Reaching out: Facilitating EFL learning through Edmodo. *International Journal of Advanced Multidisciplinary Scientific Research (IJAMSR ISSN: 2581-4281)*, 1(2), 1-7.
- Dyson, S. B., Chang, Y. L., Chen, H. C., Hsiung, H. Y., Tseng, C. C., & Chang, J. H. (2016). The effect of tabletop role-playing games on the creative potential and emotional creativity of Taiwanese college students. *Thinking Skills and Creativity*, 19, 88-96.
- Faniran Keji Felix, Paper presented on the Role of French Language in Developing 21st Century Nigerian Graduate. (Journal of Literature, Languages and Linguistics www.iiste.org an International Peer-reviewed Journal Vol.23, 2016)
- Fröhlich, M., Sievers, C., Townsend, S. W., Gruber, T., & van Schaik, C. P. (2019). Multimodal communication and language origins: integrating gestures and vocalizations. *Biological Reviews*, 94(5), 1809-1829.
- Iswara, P. D., Julia, J., Supriyadi, T., Sopandi, W., Hartati, T., & Rahmawati, N. (2019, October). Preliminary design of mobile-asynchronous language laboratory on learning writing paragraphs. In *Journal of Physics: Conference Series* (Vol. 1318, No. 1, p. 012133). IOP Publishing.
- Jaloliddin, J. S. (2020). Technology-Assisted Foreign Language Learning (Tall) in The Digital Age. *European Journal of Research and Reflection in Educational Sciences Vol*, 8(10).
- Johnson, A. M., Jacovina, M. E., Russell, D. G., & Soto, C. M. (2016). Challenges and solutions when using technologies in the classroom.
- Kavitha, J. (2012). The Importance of the English Laboratory in Developing Communication Skills. *The Criterion: An International Journal in English*, 3, 1-3.
- Kumelashvili, K. (2016). Teaching foreign languages by using technology–virtual classroom Edmodo. *Online Journal of Humanities*, 1(1), 1-7.
- Longo, Y., Alcaraz-Ibáñez, M., & Sicilia, A. (2018). Evidence supporting need satisfaction and frustration as two distinguishable constructs. *Psicothema*, 30(1), 74-81.
- Lum, J. A., Powell, M., & Snow, P. C. (2018). The influence of maltreatment history and out-of-home care on children's language and social skills. *Child Abuse & Neglect*, 76, 65-74.



- Maske, S. S., Kamble, P. H., Kataria, S. K., Raichandani, L., & Dhankar, R. (2018). Feasibility, effectiveness, and students' attitude toward using WhatsApp in histology teaching and learning. *Journal of Education and Health Promotion*, 7.
- Mercy, M. (2016). Effectiveness of using language laboratory in teaching English among VII standard students in Coimbatore district. *International Journal of Research–Granthaalayah*, 4(5), 22-26.
- Neokleous, G. (2019). Interpreting technologically fluent classrooms: digital natives' attitudes towards the use of technology in primary schools in Norway. *Professional development in CALL: a selection of papers*, 117.
- Nimako, R. D. (2020). The relevance of the French language in Ghana's relations with francophone West Africa, 71.
- Parmawati, A., & Inayah, R. (2019). Improving Students Speaking Skills Through English Movies in Scope of Speaking for General Communication. *Eltin Journal: Journal of English Language Teaching in Indonesia*, 7(2), 43-53.
- Patel, F., & Mahichchha, N. (2015). Teaching English Language by Using Modern Teaching Aids to Upper Primary Level Students. *International Journal for Innovative in Multidisciplinary Field*, 1(1), 15.
- Poláková, P., & Klímová, B. (2019). Mobile technology and Generation Z in the English language classroom—A preliminary study. *Education Sciences*, 9(3), 203.
- Rathner, J. A., & Schier, M. A. (2020). The impact of flipped classroom andragogy on student assessment performance and perception of learning experience in two advanced physiology subjects. *Advances in physiology education*, 44(1), 80-92.
- Riley, E. M., Hattaway, H. Z., & Felse, P. A. (2017). Implementation and use of a cloud-based electronic lab notebook in a bioprocess engineering teaching laboratory. *Journal of Biological Engineering*, 11(1), 1-9.
- Strand, I., Gulbrandsen, L., Slettebø, Å., & Nåden, D. (2017). Digital recording as a teaching and learning method in the skills laboratory. *Journal of Clinical Nursing*, 26(17-18), 2572-2582.
- Sun, L., Hu, L., & Zhou, D. (2022). Programming attitudes predict computational thinking: Analysis of differences in gender and programming experience: computers & Education, 181, 104457.
- Vetchinova, M. N., & Shishova, V. A. (2020). Culturological Ideas of Teaching a Foreign Language: Concepts and Theories (the end of 20th—at the beginning of the 21st Century). *International Journal of Social Sciences and Humanities*, 4(2), 39-49.
- Watty, K., McKay, J., & Ngo, L. (2016). Innovators or inhibitors? Accounting faculty resistance to new educational technologies in higher education. *Journal of Accounting Education*, 36, 1-15.
- Wei, L. (2018). Translanguaging as a practical theory of language. *Applied linguistics*, 39(1), 9-30.