



ISSN 1989 – 9572

DOI: 10.47750/jett.2022.13.02.022

Efl Students' Anxiety In Remote Learning During Covid-19 Pandemic

I Komang Gunawan Landra¹

Nyoman Dantes²

Ni Ketut Suarni³

Made Budiawan⁴

I Gede Yoga Permana⁵

Journal for Educators, Teachers and Trainers, Vol. 13 (2)

<https://jett.labosfor.com/>

Date of reception: 11 Feb 2022

Date of revision: 15 Apr 2022

Date of acceptance: 21 May 2022

I Komang Gunawan Landra, Nyoman Dantes, Ni Ketut Suarni ,Made Budiawan, I Gede Yoga Permana (2022). Efl Students' Anxiety In Remote Learning During Covid-19 Pandemic *Journal for Educators, Teachers and Trainers*,Vol. 13(2). 236 – 242.

¹²³⁴Universitas Pendidikan Ganesha, Singaraja, Bali, Indonesia

⁵STKIP Agama Hindu Singaraja, Bali Indonesia



Efl Students' Anxiety In Remote Learning During Covid-19 Pandemic

I Komang Gunawan Landra¹, Nyoman Dantes², Ni Ketut Suarni³, Made Budiawan⁴, I Gede Yoga Permana⁵

^{1,2,3,4}Universitas Pendidikan Ganesha, Singaraja, Bali, Indonesia

⁵STKIP Agama Hindu Singaraja, Bali Indonesia

Email: landragun@gmail.com¹, dantes@undiksha.ac.id², niketut.suarni@undiksha.c.id³, made.budiawan@undiksha.ac.id⁴, yogapermana@stkipahsingaraja.ac.id⁵

ABSTRACT

Since the outbreak of the Covid-19, the education system has undergone major changes. Learning that is carried out face-to-face is replaced with online-based learning. Students who have been through the online learning process for more than one year begin to show boredom. This directly impacts their psychological condition during learning. This study is aimed at investigating students' anxiety during remote learning in covid-19 pandemic. In this study, there were 100 EFL students were involved. The instrument to collect the data was Hamilton's Anxiety Rating Scale (HAM-A). The collected data were analyzed using descriptive statistics. The result showed that there were fourteen symptoms during remote learning. The highest mean score of anxiety was indicated in fears (M=2.96) meanwhile the lowest mean score was mood (M=1.52). Students were identified to have experienced a moderate anxiety. This study also highlighted female students showed higher anxiety compared to male students.

Keywords: Anxiety, Covid-19, HAM-A, Remote Learning

INTRODUCTION

The existence of Covid-19 pandemic emerges susceptibilities toward education system. We have seen during pandemic education system undergone a huge change. Classroom teaching and learning activities are switched into remote setting. This practice was aimed to decrease the spread of covid-19 (Rahiem, 2020). Ali (2020) supports that a growing number of institutions have closed face to face learning process related to the rising concerns emerged by corona virus. It is also added that covid-19 also provides an opportunity to adopt online learning system as the rapid emergence of new technology that makes making online, blended and remote learning are necessity to be in all over the world (Lee et al., 2021). It shows that the attack of corona virus provides a wide chance for the stakeholders in education process to integrate technology in learning process considering that technology has increased significantly to provide a better generation to compete in this 21st century.

Adapting remote learning to minimize the spread of corona virus places more learning responsibility on parents and guardians. As one of stakeholders in education field, parents' experience related to their children in joining remote learning is examined. Parents show a positive response toward the school closure and they satisfy with the support level given by school but some struggles faced by students' parents (Haller & Novita, 2021; Çalik & Altay, 2021). It is described that they have a difficulty in balancing responsibilities, learner motivation, accessibility, and learning outcomes (Garbe et al., 2020). The struggles faced by the parents in experiencing remote learning with their children shows that the adaptation of online learning cannot run smoothly. Firmansyah et al (2021) states that the implementation of learning cannot run effectively due to the lack of interaction, ability of using learning media, and inadequate facilities. The psychomotor, practical, and clinical skills can't be taught affectively in online learning (Elzainy et al., 2020).

In addition, the stakeholders have to deal with another impact of covid-19 in which the students feel anxious and work under pressure as a consequent of the change of their learning design. The general unpredictable pandemic and attendant change in behavior generates a great anxiety in the society (Maia & Dias, 2020; Korkmaz & Mirici, 2021). The anxiety is mostly felt by the students considering that they face a new transition in education field (Bolotov et al., 2020). The different situation effects their psychology. Some previous studies show students' anxiety during the learning process in this covid-19 virus. A strong reaction toward covid-19 pandemic was found among the students who suffered anxiety. The examination of students' knowledge, attitudes, anxiety, and coping strategies during the COVID-19 pandemic was conducted in two colleges of Southern Philippines. It revealed that the students' anxieties were increased significantly due to covid-19 pandemic (Baloran, 2020). Hapsari (2021) stated that students may suffer anxiety because of a sudden performance and

uncertain distance learning which could be a difficult and complicated experience for them. It was found that the students had a higher level of anxiety at the beginning of distance learning but they could adapt it well after a year of implementation and it reduced their anxieties (Lischer et al., 2021). The study revealed that a technical problem such as; unstable internet connection and devices' malfunction that occurred during distance learning generated students' anxiety which caused them lose the chance to understand an information and actively participated in the online learning for improving their skills (Ajmal & Ahmad, 2019).

Oktawirawan (2020) states that some students feel anxious and depressed because of the implementation of online learning. Students mostly spend their time from morning to night working on a number of assignments given by the teachers. It can be seen that covid-19 pandemic brings a new challenge in education related to students' mental health. Furthermore, Tuncay & Uzunboylu (2010) states that anxiety blocks the normal thought processes. It needs a passive approach for the material instead of requiring an interaction, it is also added that students do not prefer a distance education because it is not "face to face" interaction. It is also found that the students have lots of anxiousness in which it is categorized based on their gender. On another side, the emergency of anxiety during covid-19 pandemic caused by the tasks given by teacher and the pressure occurs from the environment (Sari et al, 2020). Based on that phenomenon, this study is intended to investigate students' anxiety in remote learning during covid-19 pandemic. The research questions of the current study are:

1. What is the level of anxiety of EFL students in remote learning during Covid-19 pandemic?
2. Is there any difference of anxiety between female and male students?

METHOD

2.1 Research Design

This study was designed in the form of quantitative research in which survey was conducted as a technique of collecting data.

2.2 Participants

The participants of the study were 100 EFL undergraduate students in Buleleng Bali. There were 46 female and 54 male students.

2.3 Data Collection Tools

Questionnaire was used as the instrument of the study which was distributed through google form. The questionnaire was designed in the form of close-ended questionnaire by adapting Hamilton's Anxiety Rating Scale (HAM-A). The HAM-A was one of first rating scales established for measuring the severity of anxiety symptoms which was widely used in clinical and research settings. It consisted of 14 items, each item defined by a series of symptoms, and measures both psychic anxiety (mental agitation and psychological distress) and somatic anxiety (physical complaints related to anxiety). Any standardized probe questions were not provided in HAM-A in spite the reported levels of interrater reliability for the scale appeared to be acceptable

2.4 Data Analysis

Each item was scored on a scale of 0 (not present) to 4 (severe), with a total score range of 0–56, where <17 indicates mild severity, 18–24 mild to moderate severity and 25–30 moderate to severe. Statistical analysis was conducted particularly in the form of descriptive analysis.

RESULT

Table 1:Symptoms of Anxiety (N=100)

S.No	Symptoms	Gender	N	Mean
1.	Anxious Mood	1	46	1.89
		2	54	1.52
2.	Tension	1	46	1.78
		2	54	1.65
3.	Fears	1	46	2.93
		2	54	2.49
4.	Insomnia	1	46	1.96
		2	54	1.95
5.	Intellectual	1	46	2.61
		2	54	2.39
6.	Depressed Mood	1	46	2.26
		2	54	2.02
7.	Somatic (Muscular)	1	46	2.46
		2	54	1.95
8.	Somatic (Sensory)	1	46	1.85

		2	54	2.22
9.	Cardiovascular Symptoms	1	46	1.89
		2	54	2.00
10.	Respiratory Symptoms	1	46	2.41
		2	54	2.33
11.	Gastrointestinal Symptoms	1	46	2.02
		2	54	1.72
12.	Genitourinary Symptoms	1	46	1.89
		2	54	2.30
13.	Autonomic Symptoms	1	46	2.00
		2	54	1.93
14.	Behavior at Interview	1	46	2.30
		2	54	2.22

(1=female, 2=male)

Table 1 showed the mean values of the anxiety symptoms EFL students during their course of remote learning. The description of mean value from fourteen symptoms was described as follows. First, the mean value of anxious mood by female was high in which female students tended to feel more worries about something than male students. Second, a higher symptom of tension was experienced by female than male students in which female students tended to have restless feeling or trembling. Third, female students showed higher level of fear compared to male students which female students were fearful with/without people beside them. Next, the mean value of insomnia showed a higher value by female students than male students in which female students tended to have problems in sleeping. Fifth, the mean value of intellectual by female students was higher than male students because the female can't concentrate in the learning process. Sixth, the mean value of depressed mood from the female students' side was higher than male students in which female students had lost their interest in learning. Seventh, the mean value of somatic (muscular) by female students was higher than male students in which female students felt pain and aches. Eighth, the mean value of somatic (sensory) by female students was higher than male students in which female students showed a feeling of weaknesses. Ninth, the mean value of cardiovascular symptoms by male students was higher than female students in which male students had pain in chest or faint. Tenth, the mean value of female students in term of respiratory symptoms was higher than male students in which female students had problem in their respiratory. Eleventh, the mean value of gastrointestinal symptoms by female students was higher than male students in which female students had problem in swallowing. Twelfth, the mean value of genitourinary symptoms by male students was higher than female students in which male students had problem in micturition. Thirteenth, the mean value of autonomic symptoms by female students was higher than male students in which female students got headache and dry mouth. The last, the mean value of behavior at interview by female students was higher than male students in which female students tended to show pacing and tremor of hand.

DISCUSSION

This present study aimed at finding students anxiety during remote learning in Covid-19 pandemic. It was found out that there were several symptoms of anxiety faced by the students during remote learning in Buleleng regency. The participants showed fourteen symptoms during remote learning, namely: anxious mood, tension, fears, insomnia, intellectual, depressed mood, somatic (muscular), somatic (sensory), cardiovascular symptoms, respiratory symptoms, gastrointestinal symptoms, genitourinary symptoms, autonomic symptoms, and behavior at interview. Anxious mood covered the feeling of distress and impatience as well as anticipating an awful result. Tension covered the feeling of strain, tiredness, surprised response, shaking, and uneasy. Fears symptoms involved the feeling of panic with strangers, frightened of the darkness, and crowd. Insomnia symptoms showed the feeling of disturbed sleep and having nightmares. Intellectual showed the lack of concentration and memorizing. Depressed symptoms showed lack of curiosity. Somatic (muscular) referred to suffering of part of body and inflexibility. Somatic (sensory) covered unclear sight, feeling of sickness, and blushed face. Cardiovascular symptoms covered the feeling of blackout, suffering in chest, and pulsating of vessels. Respiratory symptoms covered narrowing in chest, shortness of breath, and gasping. Gastrointestinal symptoms covered the condition of difficult swallowing, diarrhea, loss of heaviness, and chucking up. Genitourinary symptoms cover amenorrhea, loss of libido, and seriousness of urination. Autonomic symptoms covered dry mouth, pale, headache, and propensity to sweat. Behavior at interview covered the feeling of nervousness, trembling of hands, and plowed eyebrows. Listyani (2019) also finds similar symptoms of students' anxiety, namely: insomnia or having trouble to sleep, lack of concentration, having a fear, having a migraine, getting cold sweat, feeling fast heartbeats, isolate themselves from the society and friends, forgetting something easily, disorientation, and going to toilet often. It can be said that these symptoms of anxiety affect the students' condition during remote learning in which the students can't interact directly in the learning process.

Relating the symptoms mentioned above, some factors may contribute to the existence of students' anxiety. Öztürk & Gürbüz (2013) state that gender has an effect toward language learning process particularly on anxiety and motivation. It shows that female students are more anxious than male students. The female students have a higher fear in the learning process. In addition, Tien (2018) also argues that gender has influenced the students anxiety. Female students have a higher anxiety than male students in term of speaking ability in which female students tended to fell anxious in the learning process. Al-Habies (2020) finds out that the gender takes a part in the existence of students' anxiety. The female students have low confidence in front of other students. However, Zhao (2007) finds out that male students have a higher anxiety than female students. Female students have higher confident than male students in learning process. As the result, female students tend to have higher score. The gender of students also takes an important part in anxiety. Besides the gender, the students' anxiety also emerges due to learning condition (Listyani, 2019; Ajmal & Ahmad, 2019). In Covid-19 pandemic, the students learn from home in which they conduct online learning. As the result, the students can't conduct direct discussion with other students and teacher. The students can't share their thought or idea about the discussed material in online learning. In addition, when the students have problem, they can't ask their teacher directly and explain to them. Moreover, students feel more anxious when they get unfamiliar topic in the learning process (Atma, 2018). The students need a direct assistance to get a clear explanation of the new topic. In addition, the lack of confidence also contributes students' anxiety (Azizifar & Fariadian, 2015; Listyani, 2019). The condition of low confidence influences the students' participation in learning. In remote learning, when the students have low confidence, they can't follow the process of learning optimally. As the result, students tend to be passive in the discussion. Therefore, it can be said that students' anxiety emerges from gender, learning condition, and confidence.

The existence of students' anxiety in the learning process affects the students' skill, ability, and psychology. In term of skill, anxiety contributes to the low speaking skill in learning. Al-Hattami & Al-Ahdal (2020) states that the students' anxiety influences students' speaking skill. Students have low performance in speaking because they are afraid to speak up in front of many people. In term of students ability, students' anxiety affects the reading comprehension (Wu, 2011; Alhuwaydi, 2020). The students can't develop their idea in the learning process. In terms of psychology, students' anxiety influences students' motivation and interest (Azizifar & Fariadian, 2015). Students have low motivation and interest because they feel anxious to follow the learning process. They do not have interest to learn the subject in learning process. As the result, the students do not participate optimally in the learning discussion. Therefore, it can be said that the students' anxiety influences the skill, ability, and psychology of students.

Considering the impact of students' anxiety, this problem needs to be solved soon. There are several ways can be done to minimize the impact of students' anxiety. First, teacher takes a role to decrease students' anxiety. Zhiping and Pramasivan (2013) states that teacher need to create comfortable situation during teaching and learning process. Considering the remote learning, teacher may use story and jokes during the activity to maintain students' attention to the subject. The use of positive gesture by teacher can help students to be more comfortable in learning process (Zhiping & Pramasivan, 2013). Sari (2016) also argue that teacher's role is important to make learning situation more relaxed. Teacher also should be more sensitive to see students' behavior during learning process. Teacher has a role to design the activity of learning process (Atma, 2018). The teacher can design an interactive activity to make students actively participate during the learning process. In addition, Listyani, (2019) suggests that teachers' roles can be manifested as a facilitator, a teacher, an educator, and as a motivator. In remote learning, teacher facilitates students in terms of learning resource and learning media. Teacher provides some learning resources of related topic that is going to be discussed. In remote learning, a teacher/educator has a duty to teach students and give information in the teaching and learning process. As a motivator, a teacher also motivates students to join actively in the discussion. Second, the learning strategies may be used to decrease students' anxiety. Susanto et al., (2019) find out that peer feedback strategy can be used to lessen students' anxiety in writing class. It is an effective strategy to lessen anxiety by providing a chance to students in delivering their idea. Students also can improve their confidence from this kind of activity. Jeon (2018) proposes the use of portfolio in engaging students of writing cycle in which it helps students for reducing their anxiety and increasing confidence in English writing. Contreras-soto et al., (2019) add that portfolios provide freedom in which students can demonstrate their knowledge to produce writing. Moreover, this activity emphasizes students centered learning in which students participate actively in the learning process. Cooper et al., (2018) proposes the use of group work in the learning process to lessen students' anxiety. This activity concerns on students' actives in which students can work with other students to solve the problems. This creates an active learning which trigger students' active participation. Thus, the choice of strategy and teacher role can influence the students' anxiety.

CONCLUSION

Covid-19 pandemic brings many challenges for all the fields particularly in education system in which the new learning system influences students' mental health. The task given by teacher through online learning makes

students' work under pressure. In addition, there are fourteen symptoms of anxiety found during remote learning in covid-19 pandemic, such as; anxious mood, tension, fears, insomnia, intellectual, depressed mood, somatic (muscular), somatic (sensory), cardiovascular symptoms, respiratory symptoms, gastrointestinal symptoms, genitourinary symptoms, autonomic symptoms, and behavior at interview. Those symptoms were found through the distribution of questionnaire to 100 EFL students in Buleleng regency. From the symptoms shown by the students, it can be concluded that students have an anxiety toward remote learning system in covid-19 pandemic affected by some factors such as: gender, learning condition, and lack of confidence. The language teacher should aware that the students may get anxious feeling during online learning. This because the design of learning process in covid-19 pandemic is totally different from the before covid-19 pandemic. As the result, teacher is expected to conduct appropriate approach and strategies to cope with students' anxiety. When the students have anxiety, teacher can also provide alternative assessment and treatment to reduce their anxiety.

REFERENCES

1. Ajmal, M., & Ahmad, S. (2019). Exploration of Anxiety Factors among Students of Distance Learning: A Case Study of Allama Iqbal Open University. *Bulletin of Education and Research*, 41(2), 67-78.
2. Al-Habies, F. A. M. (2020). Investigating Study Anxiety and Its Effect on Gender and Year of Study among University EFL Students in Jordan. *Asian EFL Journal*, 27(5.1), 325-338.
3. Al-Hattami, A. A., & Al-Ahdal, A. A. M. H. (2020). Detecting Language Disorders and Anxiety among Young Learners: Remediation Options in the Current Educational Paradigm. *Asian EFL Journal*, 27(4.4), 97-115.
4. Alhuwaydi, A. A. (2020). L2 Reading Anxiety and Reading Comprehension among Undergraduates: A Correlative Study. *Asian EFL Journal*, 27(4.1), 166-181.
5. Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A Necessity in light of COVID-19 Pandemic. *Higher Education Studies*, 10(3), 16. <https://doi.org/10.5539/hes.v10n3p16>
6. Atma, N. (2018). Teachers' Role in Reducing Students' English Speaking Anxiety Based on Students' Perspectives. *Asian EFL Journal*, 20(7), 42-52.
7. Azizifar, A., & Fariadian, E. (2015). THE EFFECT OF ANXIETY ON IRANIAN EFL LEARNERS SPEAKING SKILL. *International Journal of English Language and Linguistics Research*, 3(7), 19-30.
8. Baloran, E. T. (2020). Knowledge, Attitudes, Anxiety, and Coping Strategies of Students during COVID-19 Pandemic. *Journal of Loss and Trauma*, 25(8), 635-642. <https://doi.org/10.1080/15325024.2020.1769300>
9. Bolatov, A. K., Seisembekov, T. Z., Askarova, A. Z., Baikanova, R. K., Smailova, D. S., & Fabbro, E. (2020). Online-Learning due to COVID-19 Improved Mental Health Among Medical Students. *Medical Science Educator*, 183-192. <https://doi.org/10.1007/s40670-020-01165-y>
10. Çalık, E. Ö. & Altay, İ. F. (2021). Analysis of English lesson broadcasts during emergency remote teaching from pedagogical, instructional and technical aspects. *International Journal of Education, Technology and Science*, 1(2), 71-87.
11. Contreras-soto, A., Véliz-campos, M., & Véliz, L. (2019). Portfolios as a Strategy to Lower English Language Test Anxiety : The Case of Chile. 12(1), 181-198.
12. Cooper, K. M., Downing, V. R., & Brownell, S. E. (2018). The influence of active learning practices on student anxiety in large-enrollment college science classrooms.
13. Elzainy, A., El Sadik, A., & Al Abdulmonem, W. (2020). Experience of e-learning and online assessment during the COVID-19 pandemic at the College of Medicine, Qassim University. *Journal of Taibah University Medical Sciences*, 15(6), 456-462. <https://doi.org/10.1016/j.jtumed.2020.09.005>
14. Firmansyah, R., Putri, D. M., Wicaksono, M. G. S., Putri, S. F., Widiyanto, A. A., & Palil, M. R. (2021). Educational Transformation: An Evaluation of Online Learning Due To COVID-19. *International Journal of Emerging Technologies in Learning (IJET)*, 16(07), 61. <https://doi.org/10.3991/ijet.v16i07.21201>
15. Garbe, A., Ogurlu, U., Logan, N., & Cook, P. (2020). Parents' Experiences with Remote Education during COVID-19 School Closures. *American Journal of Qualitative Research*, 4(3), 45-65. <https://doi.org/10.29333/ajqr/8471>
16. Haller, T., & Novita, S. (2021). Parents' Perceptions of School Support During COVID-19: What Satisfies Parents? *Frontiers in Education*, 6(September), 1-15.

- <https://doi.org/10.3389/feduc.2021.700441>
17. Hapsari, T. C. (2021). Distance Learning in the Time of Covid-19: Exploring Students' Anxiety. *Journal of English Language Teaching*, 10(1), 40–49.
 18. Jeon, E. Y. (2018). The Effect of Learner-Centered EFL Writing Instruction on Korean University Students' Writing Anxiety and Perception. *TESOL International Journal*, 13(3), 100–112.
 19. Korkmaz S.& Mirici, İ. H. (2021). Converting a conventional flipped class into a synchronous online flipped class during COVID-19: university students' self-regulation skills and anxiety. *Interactive Learning Environments*, DOI: 10.1080/10494820.2021.2018615
 20. Lee, Y. K., Zaid, N. M., Wahid, N. H. A., Ashari, Z. M., Suhairom, N., & Said, M. N. H. M. (2021). Challenges in Emergency Remote Teaching Among Malaysian Public Elementary School Teachers. *International Journal of Emerging Technologies in Learning*, 16(24), 74–90. <https://doi.org/10.3991/ijet.v16i24.27453>
 21. Lischer, S., Safi, N., & Dickson, C. (2021). Remote learning and students' mental health during the Covid-19 pandemic: A mixed-method enquiry. *Prospects*, 0123456789. <https://doi.org/10.1007/s11125-020-09530-w>
 22. Listyani. (2019). Research Students' Anxiety. *Asian EFL Journal*, 25(5.1), 156–175.
 23. Maia, B. R., & Dias, P. C. (2020). Anxiety, depression and stress in university students: The impact of COVID-19. *Estudos de Psicologia (Campinas)*, 37(e200067), 1–8. <https://doi.org/10.1590/1982-0275202037e200067>
 24. Oktawirawan, D. H. (2020). Faktor Pemicu Kecemasan Siswa dalam Melakukan Pembelajaran Daring di Masa Pandemi Covid-19. *Jurnal Ilmiah Universitas Batanghari Jambi*, 20(2), 541. <https://doi.org/10.33087/jiubj.v20i2.932>
 25. Öztürk, G., & Gürbüz, N. (2013). The Impact of Gender on Foreign Language Speaking Anxiety and Motivation. *Procedia - Social and Behavioral Sciences*, 70(February), 654–665. <https://doi.org/10.1016/j.sbspro.2013.01.106>
 26. Rahiem, M. D. H. (2020). The emergency remote learning experience of university students in Indonesia amidst the COVID-19 crisis. *International Journal of Learning, Teaching and Educational Research*, 19(6), 1–26. <https://doi.org/10.26803/ijlter.19.6.1>
 27. Sari, D. (2016). Students' Strategies in Reducing Speaking Anxiety. *Proceedings of the 1st English Education International Conference (EEIC)*, 2, 125–130.
 28. Susanto, Soengkono, N., & Assalma, O. H. (2019). The Effect of Peer Feedback on Students' Writing Anxiety and Students' Writing Ability. *Asian EFL Journal*, 26(6.2), 63–82.
 29. Tien, C. (2018). ENGLISH SPEAKING ANXIETY IN EFL UNIVERSITY CLASSROOMS IN TAIWAN. 4(2). <https://doi.org/10.5281/zenodo.1473161>
 30. Tuncay, N., & Uzunboylu, H. (2010). Anxiety and Resistance in Distance Learning Nazime. *Cypriot Journal of Educational Sciences*, 5(3), 142–150.
 31. Wu, H.-J. (2011). Anxiety and Reading Comprehension Performance in English as a Foreign Language. *Asian EFL Journal*, 13(2), 274–307.
 32. Zhao, N. (2007). A study of high school students' English learning anxiety. *The Asian EFL Journal Quarterly*, 9(3), 22–34.
 33. Zhiping, D., & Pramasivan, S. (2013). Anxiety of Speaking English in Class Among International Students in a Malaysian University. *International Journal of Education and Research*, 1(11), 1–16.