



Revealing University Students' Attitudes toward English Language Learning in Indonesian Contexts

Mustasyfa Thabib Kariadi

Universitas Jenderal Soedirman, Indonesia

Damar Isti Pratiwi*

Politeknik Perkeretaapian Indonesia Madiun, Indonesia

Introduction

English has been taught and used as a foreign language in Indonesia since its Independence Day, but the outcome has not been satisfying. The changing curriculum with several approaches – grammar-translation, audio-lingual, and communicative approaches – cannot significantly enhance students' English competence. At university level, English language competence is generally reported low, and English has never been widely used as the lingua franca of most students (Lie, 2007; Susilo, 2015). The latest curriculum aims to develop students' communicative competence to follow the lifetime learning by accommodating career and life skills; initiative-entrepreneurialism; collaboration-teamwork-leadership; creativity-innovation; adaptability-effective communication; and digital literacy (Poedjiastutie et al., 2020). However, the curriculum cannot successfully manifest in its implementation to capture the needs of education in the 21st century. English communicative competence for university students is still low, and the students cannot actively use English for daily communication (Pratiwi et al., 2021).

A previous study on curriculum approach in Indonesia showed that evaluation through needs analysis on curriculum has been made, and has been successful in administering bottom-up curriculum (Poedjiastutie, 2019), so the inappropriate curriculum did not cause the low-level achievement on students' communicative competence. Studies on English language curriculum implementation in the Indonesian university context have shown positive results before the pandemic in the offline classroom setting (Akbar & Sulisty, 2018; Pratiwi & Ubaedillah, 2021). During the Covid19 pandemic, where all classes had to go online, many university teachers adapted their teaching and learning strategies with the online system. The implementation of online learning through Zoom meeting, Google meet, students response systems such as Kahoot!, Socrative, Quizizz, Quizlet, and the university learning management system ran well. It hit the learning goals as written on the syllabus, but the students' English competencies stayed at a low level (Pratiwi et al., 2022; Pratiwi & Waluyo, 2022). In Thai, Chinese and Korean universities, in which English is regarded as foreign language like in Indonesia, it also revealed that learning process could meet students' needs during online learning through digital technologies (Fu et al., 2021; Lee & Osman, 2021; Waluyo, 2020). However, the final results were still low, although trends in students' four main linguistic competencies increased.



All concerns have led to a reflection on whether or not the problems of low English competence came from the internal and external factors impacting students. Accordingly, it was suggested that attitudes influenced English learning and have become a significant factor to make language learning successful (Panmei, 2021). It is assumed that students who wanted to learn would succeed whatever the circumstances in which they studied. This assumption was supported by some studies on the correlation between students' attitudes and learning outcomes which showed improvement (Štemberger & Konrad, 2021; Ubaedillah et al., 2021; Wannapiroon & Petsangsri, 2020). Nonetheless, research in Thai EFL learners found that a high level of students' motivation to learn English was not in line with their confidence in using English in daily life because of their lack of vocabulary (Ulla, 2020).

In Malaysian universities, students' attitudes towards English learning was positive using various language domains, but it revealed a negative trend regarding language instructions during the teaching and learning experience (Ahmed, 2015). So, it was important for teachers to promote effective communication to generate a favorable environment for learning, because a qualified explanation of knowledge through classroom instruction makes the students understand efficiently and improves their learning motivation (Riyanton et al., 2021). On the contrary, a study in Saudi Arabian and Slovenian universities reported that the students had positive attitudes towards English language learning, which indicated high motivation and confidence in the English language classroom (AbuSa'aleek, 2015; Štemberger & Konrad, 2021). Those studies shed light on students' attitudes that could be used as English language proficiency predictors. The higher level of positiveness resulted in a higher level of students' learning outcomes and vice versa. Yet, significant learning outcomes did not guarantee that the students performed their communicative competence well.

The study showed average positive attitudes in Vietnamese universities that differed among three university majors (Pham & Nguyen, 2020). These differences were caused by cognitive and behavioral aspects of language attitudes. The cognitive aspects involved the language learners' beliefs and ideas related to the knowledge and understanding in their learning process, while the behavioral aspects referred to the way individuals behaved and reacted towards an object in particular situations (Choy & Troudi, 2006). Studies in Indonesian universities varied from average trends with significant improvement on learning outcomes (Arifani et al., 2020) and positive students' attitudes towards English language learning (Mulyadi et al., 2020). Yet, empirical evidence on the aspects of language attitudes on the cognitive and behavioral aspects is still rare. The discussion on aspects of language attitudes linked to students' communicative competence could be generated to get a better understanding. It is hoped to reveal a new perspective in understanding the low achievement of students' communicative competence. Therefore, the present study aims to investigate Indonesian university students' attitudes towards English language learning. Specifically, this study addresses the following research questions:

1. How are the university students' attitudes toward English language learning in Indonesia?
2. How is the comparison of students' attitudes on each academic year?
3. Are the students' attitudes statistically different across academic years?

Method

Research Design

This study employed a quantitative research design to reveal the students' attitudes towards English language learning in Indonesia. The data were gathered through a survey questionnaire and then analyzed using four statistical analyses in SPSS 20. Exploration of factors affecting students' attitudes through questionnaire items revealed the underlying key feature that affected students' communicative competence.

Participants

This study involved 889 undergraduate students of non-English departments from 13 Indonesian universities (1st-year = 390; 2nd-year = 232; 3rd-year = 242; 4th-year = 26) as the research participants. The universities are located on 7 Indonesian big islands: Sumatera, Jawa, Kalimantan, Bali, Lombok, Sulawesi, and Papua. Those universities were selected using a purposive sampling method as Indonesia is an archipelagic country with more than 17,000 islands. All participants studied the General English course in their first academic year.

TABLE 1
Research Participants (N = 889)

Academic Year	Frequency	Percentage
1	390	43.87
2	232	26.10
3	241	27.11
4	26	2.92

Instrument

The researchers utilized a questionnaire to collect the data written both in Indonesian and English languages, adapted from Pham and Nguyen (2020). There were 20 items concerning the students' attitudes towards English language learning which were divided into two parts: part 1 concentrated on cognitive aspects of language attitudes (10 items), and part 2 identified behavioral aspects of language attitudes (10 items). The survey was in the form of a Likert scale of 5 response options with strongly agree (1), agree (2), neutral (3), disagree (4), and strongly disagree (5) for both parts. The instrument reliability was checked to a non-target class consisting of 24 students. The minimum coefficient was set up at .70 as used in most empirical studies. The result showed very good internal consistency with the alpha at .944 and .940 based on standardized items. This meant that all questionnaire items were reliable to be used as a research instrument without any item deletion.

TABLE 2
Questionnaire Reliability

Cronbach's Alpha	Cronbach's Alpha on Standardized Items	N
.944	.940	20

Research Procedure

Before conducting the study, the researchers have reviewed the related literature, constructed the questionnaire, and tested the instrument's reliability. After meeting the requirements, the questionnaire was distributed to the target participants. The utmost confidentiality in all information given was also emphasized. Data analysis was then performed using SPSS software by first checking the data normality through Skewness and Kurtosis. If revealed normal distribution, then the analysis continued to the descriptive-statistic and paired-sample t-test. Afterward, the Levene statistic was administered before conducting the Kruskal-Wallis test. More specifically, the Mann-Whitney test was calculated to know the detailed differences in students' attitudes across each academic year. Furthermore, exploration of key features that affected students' attitudes towards English language learning in communicative competence was discussed to give comprehensive pedagogical implementation.

Results

The data were distributed normally based on the values of Skewness and Kurtosis between -2 and +2 for all items (Skewness = -.216 to 1.644; Kurtosis = -.682 to 1.679). Therefore, the data were permitted to be examined in a paired-sample t-test.

Research Question 1

In interpreting the means of students' responses on each questionnaire item, three scales analysis were adapted from Panmei (2021), including Positive (1 - 2.5), Neutral (2.6 - 3.5) and Negative (3.6 - 5). Overall, the students' attitudes were positive toward English language learning ($M = 2.41$; $SD = .58$; $N = 889$) was used. Particularly, the cognitive and behavioral aspect also showed positive trend ($M = 2.44$; $SD = .88$; and $M = 2.37$; $SD = .30$). Based on the academic year, the results also showed positive attitudes in each academic year: 1st-year $M = 2.40$ ($SD = .59$; $N = 390$), 2nd-year $M = 2.40$ ($SD = .58$; $N = 323$), 3rd-year $M = 2.42$ ($SD = .57$; $N = 241$), and 4th-year $M = 2.42$ ($SD = .58$; $N = 26$). The detail results of survey questionnaire were shown in appendix.

TABLE 3
Students' Attitudes by Academic Year (N total = 889)

Academic Year	Mean	SD	N
1 st -year	2.40	.59	390
2 nd -year	2.40	.58	323
3 rd -year	2.42	.57	241
4 th -year	2.42	.58	26

Research Question 2

The paired-sample t-test was conducted to compare differences in students' attitudes toward English language learning between academic years. The results showed that there were no significant differences between students' attitudes in 1st-year: $t(888) = -.75$, $p = .941$, with a weak effect size ($d = .02$), 2nd-year: $t(888) = -.113$, $p = .911$, with a weak effect size ($d = .03$), 3rd-year: $t(888) = .194$, $p = .848$, with a weak effect size ($d = .04$), and 4th-year: $t(888) = .322$, $p = .751$, with a weak effect size ($d = .07$).

TABLE 4
Paired-Sample t-test Results (N = 889)

Pair	Mean Difference	SD	<i>t</i>	df	<i>p</i> -value	Cohen's <i>d</i>	Effect Size
1 st -year and all levels	-.00459	.27485	-.075	888	.941	-.02	Weak
2 nd -year and all levels	-.00603	.23770	-.113	888	.911	-.03	Weak
3 rd -year and all levels	.01134	.26140	.194	888	.848	.04	Weak
4 th -year and all levels	.01746	.24280	.322	888	.751	.07	Weak

Research Question 3

Before analyzing Kruskal-Wallis and Mann-Whitney test, the data were checked for homogeneity through Levene statistics. The results showed that Levene statistics = 7.876, Sig. = .000, $df = 3$ (885), which meant that the data was not homogeneous. Thus, the data were more appropriately checked using the Kruskal-Wallis test.

TABLE 5
Levene Statistics Results

Levene statistics	df1	df2	Sig.
7.876	3	885	.000

The Kruskal-Wallis test revealed that there was no difference in students' attitudes toward English language learning across academic years (Sig. = .72). The Mann-Whitney test showed that there was no difference in students' attitudes across each academic year, except on the 1st and 3rd-year (Sig. = .016). In the other academic years, the value of asymptotic significance was > .050: 1st and 2nd-year (Sig. = .056), 1st and 4th-year (Sig. = .519), 2nd and 3rd-year (Sig. = .728), 2nd and 4th-year (Sig. = .858), and 3rd and 4th-year (Sig. = .720).

TABLE 6
Kruskal-Wallis and Mann-Whitney Test Results

Kruskal-Wallis Test		N	Mean Rank	Chi-Square	df	Sig.
Students' Attitudes	1 st -year	390	470.33	6.9823	3	.72
	2 nd -year	232	429.10			
	3 rd -year	241	420.09			
	4 th -year	26	437.92			
	Total	889				
Mann-Whitney Test			Mann-Whitney	Wilcoxon	Z	Sig.
Students' Attitudes	1 st -year and 2 nd -year		41099	68127	-1.912	.056
	1 st -year and 3 rd -year		41641	70802	-2.408	.016
	1 st -year and 4 th -year		4687.50	5038.50	-.645	.519
	2 nd -year and 3 rd -year		27440	56601	-.347	.728
	2 nd -year and 4 th -year		2951.50	29979.50	-.179	.858
	3 rd -year and 4 th -year		2999	32160	-.358	.720

Discussion

The primary purpose of this study is to investigate the university students' attitudes toward English language learning in Indonesia. The high achievement of students' learning outcomes that are not equal to their communicative competence has become a major issue. By revealing the students' attitudes in English learning, it may offer an additional point of view, especially for English educators. First, this study found that the students had positive attitudes toward English language learning in all academic years in various majors. This finding reinforced the previous study conducted by Ahmed (2015), Panmei (2021), and Pham and Nguyen (2020), which revealed that the students had positive attitudes in the English classroom. Ulla (2020) argued that the more interactive, exciting, and engaging the classroom activities, the more the students got motivated to learn a language and showed positive attitudes toward language learning. Positive attitudes on language learning were important to engage the students in the proper regulation of social practice as communicative competence (Sabri & Ahmed, 2018).

Second, the findings revealed that the students' positive attitudes were not different between academic years. This confirmed a study conducted by Fu et al. (2021) finding that there was no difference in attitudes between the students' years. On the contrary, another study revealed different attitudes among students' years as a result of language activities used in the classroom (Lee & Osman, 2021). The third finding of this study sustained study conducted by Lee and Osman (2021). Although in general there were no differences in attitudes, it showed exception when examined across academic years. Students' attitudes in the 1st-year and 3rd-year revealed differences. This raised an insight that each grade needed different treatment, which supported the students' communicative competence in using the language appropriately in a given situation and expressing appropriate behavior in a cultural communication context. Fitriati and Lisa (2019) suggested that language activities should be designed to support the students' communicative

competence which covered 6 competencies, including sociocultural, discourse, linguistic, formulaic, interactional, and strategic competence.

Exploring cognitive and behavioral aspects through questionnaire items might offer additional understanding on how English teachers could improve students' communicative competence concerning several factors underlying the university students' attitudes toward English language learning. Panmei (2021) divided the underlying factors into five main points: 1) preferences toward the English skills to be learned; 2) values of English for job opportunities, personality, academic achievement, business, and communication; 3) values of English for personality growth of mind; 4) English competences; 5) Feelings in learning English. The first point about preferences toward English skills were described on questions 1, 2, 8 and, 10. All items were positively responded with the results of below 2.5. This meant that the students preferred learning English. The second point regarding values of English was described on questions 3, 4, 11, and 13 in which three numbers got positive results and 1 number had neutral result. At this point, the students have understood the benefits of learning English for their future. Third, questions 9, 14, 18, and 20 reflected the third point about values of English for personality growth of mind. All those questions received positive attitudes from the students. It indicated that the students were obviously aware of the importance of learning English to develop their personality growth. The fourth point about English competences showed on questions 5, 6, 7, and 19 where three items were neutral, while one item was negative. It indicated that students' preference and awareness in learning English were not in line with their competencies, sustaining the previous findings of research conducted by Hidayat-ur-Rehman et al. (2021), Kariadi et al. (2021), and Valentová and Brečka (2020). The last point regarding feeling in learning English presented on questions 12, 15, 16, and 17 where two items resulted in positive while the others in neutral. The students still had mixed feelings related to English language learning. Suggestions were needed to maximize students' positive attitudes toward English language learning to enhance students' communicative competence (Delić, 2020).

Getie (2020) wrote several points related to factors affecting the students' attitudes toward learning English as a foreign language, including learners' personality context, self-confidence, risk-taking, anxiety, educational context, learning situation, language teacher, teaching material, learners' parents, learners' peer group, and community. In this study, the students showed positive attitudes toward preferences in learning English and perceived a good perception of the English learning values for their future and self-growth. Yet, they showed neutral and negative attitudes regarding their English competencies. Thus, it is suggested that English teachers should keep using English as a medium of instruction in class so the students will get used to it. Organizing English day and English club in university will support the students to improve their communicative competence and express their feelings or opinions in English. Last but not least, a collaboration between teachers, society, and government to establish a conducive learning environment is beneficial for supporting students' positive attitudes, which will affect competency improvement.

Conclusion

The findings reveal students' attitudes toward English language learning in the Indonesian university context. This study highlights the students' positive attitudes in all aspects, except their competencies. Comparing students' attitudes between and across academic years in general, they do not have differences. These imply that students' low English competence does not rely much on students' attitudes. Therefore, some efforts need to be made comprehensively among teachers, schools, government, and the students themselves to improve their communicative competence. Enhancing their English competencies would be beneficial for their future career and self-growth.

Despite using a large sample size, the present study is limited to statistical analyses, so future studies using more advanced statistical analyses are recommended. Moreover, this study did not explore the measurement of students' communicative competence, although it discussed Indonesian university

students' English competencies. It is recommended that future studies adopt experimental research to give a deeper understanding of students' attitudes toward English language learning.

Acknowledgements

This paper is funded by Universitas Jenderal Soedirman and receives assistance from Politeknik Perkeretaapian Indonesia Madiun and Universitas Negeri Semarang (UNNES).

The Authors

Mustasyfa Thabib Kariadi is a lecturer and researcher from Universitas Jenderal Soedirman, Indonesia. He graduated from Universitas Negeri Semarang for both Bachelor and Master Degree. He is greatly interested in conducting research on English Language Teaching and Education, Material Development, Curriculum, English for Specific Purposes, Language Testing, Classroom Management, Linguistics, Culture, Local Wisdom, Tourism, Indonesian Language for Foreign Speakers (BIPA), social studies, and translation studies.

English Education Study Program, Faculty of Humanities,
Universitas Jenderal Soedirman
Jl. Prof. Dr. HR. Boenyamin No. 708, Kab. Banyumas, Jawa Tengah, Indonesia
Mobile: +62 812-1569-1978
Email: mtkariadi_pbi@unsoed.ac.id

Damar Isti Pratiwi is an English lecturer in Politeknik Perkeretaapian Indonesia Madiun. She got her Bachelor and Master degree from Universitas Negeri Semarang. Now she is a postgraduate student of Universitas Negeri Semarang. Her research interest is in teaching English as foreign language, teaching English with technology, English for specific purposes, and educational technology.

Railway Mechanical Technology Study Program,
Politeknik Perkeretaapian Indonesia Madiun
Jl. Tirta Raya, Manguharjo, Kota Madiun, Jawa Timur, Indonesia
Mobile: +62 817-299-610
Email: damar@ppi.ac.id

References

- AbuSa'aleek, A. O. (2015). Students' perceptions of english language learning in the facebook context. *Teaching English with Technology*, 15(4), 60-75.
- Ahmed, S. (2015). Attitudes towards English language learning among EFL learners at UMSKAL. *Journal of Education and Practice*, 6(18), 6-17.
- Akbar, A. A. N. M., & Sulistyono, G. H. (2018). The current learning competences of English for vocational high school graduates: Do they really cater for the real-life professional needs. *The International English Language Teachers and Lecturers Conference (INELTAL)*, 1987, 189-194.
- Arifani, Y., Asari, S., Anwar, K., & Budianto, L. (2020). Individual or collaborative whatsapp learning? a flipped classroom model of EFL writing instruction. *Teaching English with Technology*, 20(1), 122-139.
- Choy, S. C., & Troudi, S. (2006). An investigation into the changes in perceptions of and attitudes towards learning English in a Malaysian college. *International Journal of Teaching and Learning*

- in *Higher Education*, 18(2), 120-130.
- Delić, H. (2020). Attitude towards learning English as a foreign language. *Journal of Education and Humanities*, 3(1), 67-80. <https://doi.org/10.14706/jeh2020316>
- Fitriati, S. W., & Lisa, A. (2019). *Discourse studies in English language education*. UNNES Press.
- Fu, Y., Zhang, L., Zhao, S., & Chen, Y. (2021). Perceptions of non-English major college students on learning English vocabulary with gamified apps. *International Journal of Emerging Technologies in Learning*, 16(18), 268-276. <https://doi.org/10.3991/ijet.v16i18.24125>
- Getie, A. S. (2020). Factors affecting the attitudes of students towards learning English as a foreign language. *Cogent Education*, 7(1). <https://doi.org/10.1080/2331186X.2020.1738184>
- Hidayat-ur-Rehman, I., Ahmad, A., Ahmed, M., & Alam, A. (2021). Mobile applications to fight against COVID-19 pandemic: The case of Saudi Arabia. *TEM Journal*, 10(1), 69-77. <https://doi.org/10.18421/tem101-09>
- Kariadi, M. T., Riyanton, M., & Anggraheni, D. (2021). Planning and developing creativity through media-based learning in English language teaching. *English Review: Journal of English Education*, 9(2).
- Lee, D. J., & Osman, D. G. (2021). Students' experiences and perceptions of online collaborative learning in higher education of Korea and the UAE. *Turkish Online Journal of Distance Education*, 22(1), 1-18. <https://doi.org/10.36615/sotls.v4i2.130>
- Lie, A. (2007). Education policy and EFL curriculum in Indonesia: Between the commitment to competence and the quest for higher test scores. *Teflin Journal*, 18(1), 1-14.
- Mulyadi, D., Arifani, Y., Wijayantingsih, T. D., & Budiastuti, R. E. (2020). Blended learning in English for specific purposes (ESP) instruction: Lecturers' perspectives. *Computer-Assisted Language Learning Electronic Journal (CALL-EJ)*, 21(2), 204-219.
- Panmei, B. (2021). Understanding university students' attitudes toward English language learning in Thailand. *The Journal of Asia TEFL*, 18(2), 726-736. <https://dx.doi.org/10.18823/asiatefl.2021.18.2.28.726>
- Pham, D. T. T., & Nguyen, T. H. (2020). A study on attitude towards English language learning among non-English majored students at Tra Vinh university. *Vietnam Journal of Education*, 4(2), 47-54. <https://doi.org/10.52296/vje.2020.19>
- Poedjiastutie, D. (2019). A complex process of autonomy curriculum approach in Indonesia. *The Journal of Asia TEFL*, 16(3), 1051-1058. <https://dx.doi.org/10.18823/asiatefl.2019.16.3.22.1051>
- Poedjiastutie, D., Rohmah, A., & Rahagia, R. (2020). Is the local language allowed in EFL classrooms? *The Journal of Asia TEFL*, 17(4), 463-478. <https://dx.doi.org/10.18823/asiatefl.2020.17.2.10.463>
- Pratiwi, D. I., Atmaja, D. S., & Prasetya, H. W. (2021). Multiple e-learning technologies on practicing TOEFL structure and written expression. *JEES (Journal of English Educators Society)*, 6(1), 105-115. <https://doi.org/10.21070/jees.v6i1.1194>
- Pratiwi, D. I., & Ubaedillah, U. (2021). Digital vocabulary class in english for railway mechanical technology. *Teaching English with Technology*, 21(3), 67-88. w
- Pratiwi, D. I., Ubaedillah, U., Puspitasari, A., & Arifianto, T. (2022). Flipped classroom in online speaking class at Indonesian university context. *International Journal of Instruction*, 15(2), 697-714. <https://doi.org/10.29333/iji.2022.15238a>
- Pratiwi, D. I., & Waluyo, B. (2022). Integrating task and game-based learning into an online TOEFL preparatory course during the COVID-19 outbreak at two Indonesian higher education institutions. *Malaysian Journal of Learning & Instruction*, 19(2), 37-67. <https://doi.org/10.32890/mjli.2022.19.2.2>
- Riyanton, M., Kariadi, M. T., Krisnawati, V., Martha, N. U., & Setiani, U. A. (2021). Whole language as a language learning approach. *Proceedings of the International Conference on Industrial Engineering and Operations Management, March 7-11*, 3746-3755.
- Sabri, T., & Ahmed, S. (2018). Communicative competence in English as a foreign language: Its meaning and the pedagogical applications for its development. *International Journal of English Language*

Teaching, 6(9), 27-33.

- Štemberger, T., & Konrad, S. Č. (2021). Attitudes towards using digital technologies in education as an important factor in developing digital competence: The case of Slovenian student teachers. *International Journal of Emerging Technologies in Learning*, 16(4), 83-98. <https://doi.org/10.3991/ijet.v16i14.22649>
- Susilo, S. (2015). Curriculum of EFL teacher education and Indonesian qualification framework: A blip of the future direction. *Dinamika Ilmu*, 15(1), 11-24. <https://doi.org/10.21093/di.v15i1.98>
- Ubaedillah, U., Pratiwi, D. I., Huda, S. T., & Kurniawan, D. A. (2021). An exploratory study of English teachers : The use of social media for teaching English on distance learning. *IJELTAL (Indonesian Journal of English Language Teaching and Applied Linguistics)*, 5(2), 361-372.
- Ulla, M. B. (2020). Students' speaking motivation and their perspectives on a task-based language classroom: pedagogical implications. *The Journal of Asia TEFL*, 17(2), 681-688. <https://dx.doi.org/10.18823/asiatefl.2020.17.2.26.681>
- Valentová, M., & Brečka, P. (2020). Ways of critical and creative thinking development in practical training through video-study. *TEM Journal*, 9(1), 327-334. <https://doi.org/10.18421/TEM91-45>
- Waluyo, B. (2020). Learning outcomes of a general English course implementing multiple e-learning technologies and active learning concepts. *The Journal of AsiaTEFL*, 17(1), 160-181. <https://dx.doi.org/10.18823/asiatefl.2020.17.1.10.160>
- Wannapiroon, N., & Petsangsri, S. (2020). Effects of steamification model in flipped classroom learning environment on creative thinking and creative innovation. *TEM Journal*, 9(4), 1647-1655. <https://doi.org/10.18421/TEM94-42>

(Received June 17, 2022; Revised August 23, 2022; Accepted Sep 18, 2022)

Appendix

Students' Attitudes in Cognitive Aspects

Items	Mean	SD
Studying English is important because it will make more educated.	1.7705	1.19740
Studying English helps me communicate in English.	1.7705	1.19740
Being good at English will help me study other subjects well.	2.1406	1.12977
I like studying English because it will be useful for my future career.	1.8684	1.12886
I cannot summarize the important points in English.	3.4038	1.06966
I cannot apply the English knowledge in my daily life.	3.3386	1.12960
I put off my English homework as much as possible.	3.8358	1.14786
I like English because it sounds modern.	2.3971	1.11946
I have more knowledge when I study English.	1.9719	1.01692
I am interested in studying English.	1.9348	1.11411

Students' Attitudes in Behavioral Aspects

Items	Mean	SD
I like to give opinions during English lessons.	2.8133	1.00169
Studying English makes me confident in expressing myself.	2.0247	1.11473
Studying English helps me have good relationships with friends.	2.4522	1.10599
I like practicing English with my friends.	2.2148	1.11499
I am not relaxed whenever I have to speak in English.	2.5906	1.11751
I feel embarrassed to speak English in front of other people.	2.7390	1.16994
I feel proud when studying English.	2.4387	1.03482
I am able to make myself pay attention during studying English.	2.0450	.99447
I like practicing English the way native speakers do.	2.4196	1.08869
I look forward to studying English more in the future.	1.9809	1.08152