

## Eco-Tourism: Students' Motivation Towards Learning Hygiene Education in Pulau Redang

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### Abstract

*The motivation of students to engage in hygiene education plays a vital role in fostering their active participation and understanding of key health practices. However, there is limited research that explores the factors influencing student motivation, particularly in the context of eco-tourism education in Malaysia. This study aims to investigate the motivation levels of school students in Pulau Redang concerning their interest in learning hygiene practices, with a focus on potential gender differences in motivation. Drawing on established motivational theories, the research will employ a survey-based methodology to assess various factors influencing motivation, such as personal interest, environmental awareness, perceived importance, and perceived competence. A total of 427 questionnaires will be distributed to students from diverse educational backgrounds using random sampling, ensuring confidentiality and anonymity. Data analysis will include reliability testing, descriptive statistics, and T-tests to examine gender differences using the SPSS 2.6 program. The results are expected to show high levels of motivation among students, with no significant differences between male and female participants.*

**Keywords:** *Islamic Studies; Quran and Hadith; Students' Motivation; Islamic Education; Islamic Development Management; Hygiene Education*

### Introduction

Understanding hygiene education is vital for equipping students with the knowledge necessary to promote health and well-being, especially within the context of eco-tourism. Hygiene education provides fundamental guidance on maintaining personal health, environmental cleanliness, and community welfare, all of which are key to supporting sustainable tourism practices. This knowledge helps students to develop healthy habits, foster environmental awareness, and make informed decisions that contribute to a cleaner, safer, and more sustainable living environment (Ebrahimi, M., 2017). By learning about hygiene, students not only enhance their own well-being but also play a role in preserving the natural beauty of eco-tourism destinations like Pulau Redang, promoting long-term sustainability and public health (Hamid, A. W., 1989).

Student motivation in learning hygiene practices is critical to their engagement and understanding of these essential concepts. However, fluctuating motivation levels pose a significant challenge within the realm of educational initiatives, despite their importance. Factors such as personal interests, teaching methods, curriculum structure, and the learning environment all play a role in shaping student motivation. Yet, there is a noticeable gap in research on how these factors impact motivation in different educational settings, particularly within the eco-tourism and environmental education sectors (Nawas, A., 2023).

Investigating the motivation of students in Malaysia to learn hygiene education, particularly in an eco-tourism context like Pulau Redang, requires an in-depth understanding of the factors driving their interest and the strategies they employ to learn. By synthesizing relevant studies, we can explore the intricacies of student motivation in the realm of hygiene education. Understanding how different teaching approaches and learning environments affect motivation is key to enhancing student engagement and educational

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outcomes (Rocher, 2018). Studies have shown that active learning practices and academic self-efficacy are vital to fostering student motivation. Research has highlighted the importance of creating dynamic, stimulating learning environments that encourage active participation and boost motivation (Siew & Mapeala, 2017).

A study by Julhadi et al. (2022) explored how instructors in hygiene education address the challenges faced by students in understanding and applying hygiene practices. This research examined difficulties related to awareness, application, and retention of hygiene concepts, as well as the innovative methods teachers use to overcome these obstacles. Similarly, Barni (2022) discussed the development of a research-based learning approach aimed at improving the teaching of environmental and health education in schools, stressing the importance of creative teaching methods to enhance student engagement and learning outcomes.

These studies highlight the significance of using innovative and student-centered approaches to increase motivation and address educational challenges. For example, a study by Annas & Permana (2022) found that using multimedia tools in hygiene education significantly improved students' understanding of concepts and their attitudes toward hygiene. Additionally, Rahmiati et al. (2021) developed a social enquiry model for hygiene education, emphasizing problem-solving skills and active student participation as key factors in boosting motivation and learning outcomes.

Further research by Abdullah et al. (2022) explored the motivational factors influencing students in acquiring hygiene knowledge, particularly within the context of eco-tourism. The study stressed the importance of understanding what drives students' motivation to engage in hygiene education. Meanwhile, Samah et al. (2014) highlighted the effectiveness of personalized learning modules, demonstrating how tailored approaches can positively influence students' motivation to acquire essential health-related knowledge.

Ultimately, the motivation of school students in Pulau Redang to learn about hygiene within the context of eco-tourism involves several factors, including self-efficacy, active learning strategies, teaching creativity, and the use of modern teaching methods. This research seeks to examine these motivational factors, with particular emphasis on gender differences, to provide insights that could inform educational practices and policies aimed at enhancing student engagement and success in hygiene education, especially in eco-tourism contexts like Pulau Redang.

## Literature Review

### *Student Motivation and Academic Performance in Hygiene Education*

Student motivation plays a key role in determining the effectiveness of hygiene education, especially in the context of eco-tourism. High levels of motivation directly enhance academic performance, as motivated students are more likely to engage deeply with hygiene-related courses (Zabidi et al., 2022; Fasya et al., 2022). The application of modern educational tools, such as technology, helps maintain student interest and supports their learning process in hygiene practices (Saputra & Azizah, 2023).

### *Influence of External Factors on Learning Motivation*

Parental communication has been identified as a significant factor in boosting students' motivation to learn hygiene and environmental sustainability concepts (Amin et al., 2021). Similarly, socioeconomic background plays a role in influencing student motivation, showing a connection between economic factors and educational engagement (Zaitun, 2022). The learning environment and emotional intelligence also shape learning outcomes, reinforcing the importance of creating supportive spaces for hygiene education (Hayati et al., 2022; Ahmad, 2021).

### *Innovative Teaching Methods in Hygiene Education*

A range of pedagogical strategies has been explored to enhance motivation in hygiene education. For

example, the Student Team Achievement Division (STAD) technique encourages collaboration and environmental responsibility (Insani, 2023). Blended learning approaches, as well as game-based and technology-enhanced learning methods, are gaining popularity for fostering student engagement and improving the overall learning experience (Ritonga et al., 2022; Yusoff et al., 2020). The use of mind maps and gamification frameworks further supports student focus and enthusiasm (Hidayati & Subur, 2023; Hassan et al., 2022).

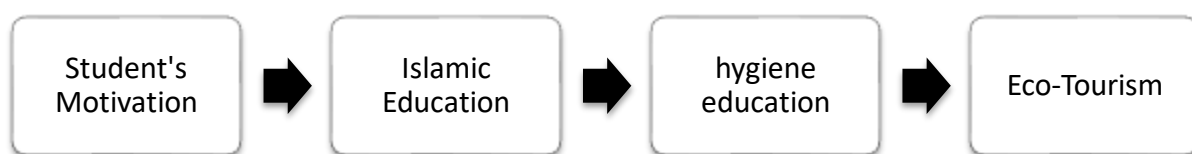
### *Role of Teachers and Educators*

Teachers play a pivotal role in motivating students to engage with hygiene education. Studies have shown that the creativity and expertise of educators are essential for addressing learning challenges and inspiring students to participate in hygiene practices (Julhadi et al., 2022). The motivational impact of teachers has a direct influence on student outcomes, with innovative teaching strategies making a significant difference (Pratomo & Kuswati, 2022). The BTL model also emphasizes guided activities that build students' understanding and commitment to hygiene practices (Saputra et al., 2021).

### *Personalized Approaches and Technology in Learning Hygiene*

Personalized learning strategies have been proven to increase student motivation, particularly in hygiene education. Tailored approaches that consider individual preferences and the use of e-learning platforms help maintain high levels of student engagement (Anam & Rusydiyah, 2021). The integration of learning analytics, persuasive technologies, and interactive platforms allows for a more customized and engaging educational experience (Bawazir, 2019). These technologies, combined with an emphasis on fostering autonomy and competence, create an effective framework for improving motivation and learning outcomes in hygiene education (Hanafi et al., 2021).

Ultimately, students' motivation to learn hygiene education in the context of eco-tourism is shaped by a combination of internal and external factors, including personal goals, innovative teaching techniques, the use of technology, and environmental and social influences. To enhance student engagement, commitment, and performance in hygiene education, educators can address various challenges and tailor their teaching strategies to meet the unique needs of students. Based on this discussion, the following is the conceptual framework for understanding students' motivation in hygiene education:



**Figure 1: Conceptual Framework**

The conceptual framework of this study, as illustrated in Figure 1, outlines the relationship between students' motivation and their engagement in hygiene education, particularly within the context of eco-tourism. This motivation is shaped by a variety of internal and external factors, including the influence of hygiene education within the broader educational system. The framework highlights the impact of student motivation on their active participation in learning hygiene practices, which is essential for fostering responsible environmental behavior and sustainability, especially in eco-tourism destinations like Pulau Redang. In this context, the educational framework, including curriculum design, teaching methods, and institutional support, plays a significant role in shaping students' commitment to hygiene education. The framework suggests that high motivation and effective education in hygiene can lead to positive lifestyle changes, promoting cleanliness, environmental awareness, and sustainable practices. Each stage of the framework is crucial in ensuring that hygiene education leads to meaningful and practical outcomes in the lives of students.

Based on this discussion, the study will evaluate the following assumptions:

1. **H1:** School students in Pulau Redang exhibit high levels of motivation towards learning hygiene education.
2. **H2:** There is no significant difference in motivation levels between male and female students towards learning hygiene education.

## Methods

### *Research Design*

A survey-based study will be conducted to examine the motivation levels of school students in Pulau Redang toward learning hygiene education, with a specific focus on potential gender differences. The survey will be designed to assess various motivational factors, such as personal interest, environmental awareness, perceived importance of hygiene, and perceived competence in applying hygiene practices. Survey items will be adapted from established and validated scales and customized to suit the specific context of hygiene education in Pulau Redang.

### *Data Collection*

The study will employ a random sampling technique, utilizing the Krejci and Morgan (1970) method, to distribute 427 questionnaires to students across different education levels in Pulau Redang. The sample will be stratified to ensure representation from primary, secondary, and higher education levels. Additionally, students from diverse backgrounds, including urban and rural areas, as well as different socioeconomic statuses, will be included to provide a comprehensive understanding of motivation across various demographics.

Data collection will be conducted electronically, with students completing the survey online. The survey will be distributed via email or through school platforms, ensuring confidentiality and anonymity. Participants will be provided with detailed information about the study's purpose, and their informed consent will be obtained before participation.

### *Data Analysis*

After data collection, the gathered information will undergo thorough analysis using SPSS 2.6 software. Reliability testing, using Cronbach's alpha, will ensure the internal consistency of the survey instrument. Descriptive analysis will be conducted to explore the distribution and characteristics of motivational factors across different educational levels, offering insights into students' varying levels of motivation based on their academic progression.

In addition, a T-test will be used to examine gender differences in motivation, helping to identify any significant disparities between male and female students. This analysis will provide valuable insights into potential gender-specific needs and preferences in hygiene education.

Overall, this comprehensive approach aims to provide an in-depth understanding of student motivation in Pulau Redang regarding hygiene education, taking into account educational levels and gender differences. The findings will offer insights for educational policies and practices designed to enhance student engagement and achievement in hygiene education, particularly in the context of eco-tourism.

## Result and Discussion

### Research Result

**Table 1: Reliability Statistics**

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.898	.914	15

The reliability of the data was analyzed to assess the trustworthiness of the scale used to measure students' motivation in Pulau Redang towards learning hygiene education. The Cronbach's Alpha coefficient, which was calculated to be .898 (.914 with standardized items), demonstrates a high level of internal consistency among the scale items. This suggests that the items within the scale consistently measure the same underlying concept motivation towards learning hygiene education.

The strong internal consistency, as reflected by the Cronbach's Alpha coefficient, aligns with the standards proposed by Kennedy, I. (2022), which recommends that a value of 0.7 or higher indicates acceptable reliability. Consequently, the scale's high reliability confirms its validity and trustworthiness in accurately measuring students' motivation levels. This finding reinforces the credibility of the study's results and assures readers that the scale is reliable for evaluating the specific concept under investigation.

**Table 2: Descriptive Statistics**

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	Level
1. I work hard to study learning the Qur'an and Hadith.	424	2	5	4.53	.655	High
2. I try my best to understand everything that the lecturers teach in classes about learning the Qur'an and Hadith.	423	2	5	4.58	.602	High
3. I voluntarily always answer questions asked by lecturers during learning the Qur'an and Hadith classes.	422	1	5	3.41	.888	High
4. I will continue my studies in learning the Qur'an and Hadith if I complete the current level.	423	2	5	4.42	.707	High
5. I willingly do additional assignments given by lecturers in learning the Qur'an and Hadith.	423	1	5	3.92	.889	High
6. I intend to study learning the Qur'an and Hadith because I am interested in Islamic culture.	424	1	5	4.52	.704	High
7. I study learning the Qur'an and Hadith so that I can easily make many acquaintances in the field.	423	1	5	3.93	1.063	High
8. Studying learning the Qur'an and Hadith is important because I can appreciate both the worldly and the	423	2	5	4.83	.473	High

hereafter.						
9. I decided to study learning the Qur'an and Hadith to understand the perfect Islamic way of life.	424	2	5	4.77	.515	High
10. I study learning the Qur'an and Hadith so that I can get closer to God.	422	1	5	4.79	.520	High
11. Knowledge in learning the Qur'an and Hadith is very helpful for me to continue my studies.	426	1	5	4.58	.678	High
12. Knowledge in learning the Qur'an and Hadith will increase the chances of getting a job.	425	1	5	4.34	.804	High
13. Skills in learning the Qur'an and Hadith will bring financial benefits.	426	1	5	3.88	.978	High
14. Knowledge in learning the Qur'an and Hadith will help me when meeting other people.	426	1	5	4.51	.704	High
15. Knowledge in learning the Qur'an and Hadith is very useful in my future job.	422	3	5	4.55	.672	High
Valid N (listwise)	411	-	-	-	-	-

Table 2 offers a detailed analysis of the motivation levels of school students in Pulau Redang concerning their interest in learning hygiene education. The evaluation of average scores across the scale items provides insights into the students' level of motivation. Mean scores between 1.333 and 3.333 indicate low motivation, while mean scores between 3.334 and 5 suggest high motivation.

The average scores consistently reflect a strong consensus among respondents across various statements assessing different aspects of motivation. For instance, statements such as "I put significant effort into understanding hygiene education" and "I actively apply the hygiene practices taught in school" reveal mean scores exceeding 4.5, suggesting high levels of agreement and commitment among students towards hygiene education. Moreover, the relatively small standard deviations linked to these scores indicate a high level of consistency in students' motivation for these statements. The classification of motivation levels as "High" for all statements further reinforces this observation. Based on a large and reliable sample, it is evident that school students in Pulau Redang demonstrate a strong desire and motivation to learn about hygiene practices. This motivation, as supported by the data, highlights the relevance and importance of hygiene education, particularly in the context of eco-tourism, aligning with the central theme of the study titled "Eco-Tourism: School Students' Motivation Towards Learning Hygiene Education in Pulau Redang."

Students consistently show high motivation levels across all measured parameters, with mean scores ranging from 3.41 to 4.83, indicating a generally positive and proactive attitude toward engaging with hygiene education. The results reveal a consistent trend, with students showing a strong inclination to explore different aspects of hygiene practices. Motivations for engagement include both intrinsic factors, such as a genuine interest in health and environmental protection, and extrinsic factors, such as the anticipation of future career opportunities in eco-tourism. Social incentives, including the desire to contribute to community well-being and foster relationships within eco-conscious communities, also emerge as significant motivators. Although most items exhibit small standard deviations, indicating uniformity in responses, a few items show slightly higher variability, revealing diverse perspectives among students.

In conclusion, these findings underscore the critical role of hygiene education in shaping students' engagement with eco-tourism and the need to promote continued enthusiasm and participation in learning hygiene practices.



**Table 3: Group Statistics**

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Learning_Motivation	Male	138	4.3788	.52624	.04480
	Female	288	4.3724	.45255	.02667

Table 3 presents a detailed analysis of learning motivation statistics, categorized by gender. Each row represents a specific gender group, labeled as 'Male' for boys and 'Female' for girls. The 'N' column shows the sample size for each gender, with 138 males and 288 females.

The 'Mean' column displays the average learning motivation score for each gender. The average score for males is 4.3788, while the score for females is slightly lower at 4.3724.

In the 'Std. Deviation' column, the standard deviation provides insight into the variability of learning motivation scores within each gender group. For males, the standard deviation is 0.52624, indicating a wider spread of scores compared to females, whose standard deviation is 0.45255, showing more consistency in motivation levels.

The 'Std. Error Mean' column gives an estimate of the precision of the sample mean in predicting the population mean. It represents the degree of uncertainty in the sample's ability to reflect the population's true average. For males, the standard error of the mean is 0.04480, indicating a larger range of uncertainty, while for females, it is 0.02667, showing a smaller margin of error in predicting the population mean for this group.

These statistics are valuable for understanding both the average levels of learning motivation and the range and precision of these measurements across gender groups, providing useful insights into the differences in student motivation toward learning hygiene education in the context of eco-tourism.

**Table 4: Independent Samples Test**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Learning_Motivation	Equal variances assumed	2.223	.137	.130	424	.896	.00644	.04945	-.09075	.10363
	Equal variances not assumed			.124	237.088	.902	.00644	.05213	-.09626	.10914

Table 4 presents the results of an independent samples test designed to identify any differences in the average learning motivation scores between two distinct groups. This analysis involves two key statistical tests: Levene's Test for Equality of Variances and the t-test for Equality of Means. The tests are conducted under two conditions: one assuming equal variances between the groups and the other not assuming equal variances.

Levene's Test for Equality of Variances serves as an initial step to assess whether the variances of the two groups are uniform. The "F" statistic indicates the ratio of variances, while the p-value in the "Sig." column

shows the statistical significance of any differences. A higher p-value, such as 0.137 reported under the assumption of equal variances, suggests no significant difference in the variances between the groups.

Next, the t-test for Equality of Means evaluates whether there is a significant difference in the mean learning motivation scores between the two groups. The "t" statistic, along with the degrees of freedom (df), is the key measure for assessing this difference. The "Sig. (2-tailed)" column provides the p-value, indicating the likelihood that the observed results occurred by chance.

Additionally, the "Mean Difference" and "Std. Error Difference" columns offer a numerical representation of the observed difference in average motivation scores and its standard error, respectively. The "95% Confidence Interval of the Difference" shows a range in which we can be 95% confident that the true difference in means lies.

In conclusion, these analyses demonstrate that there is no significant difference in the learning motivation scores between the two groups studied, regardless of whether equal variances are assumed. This finding suggests consistency in student motivation toward learning hygiene education in the eco-tourism context, regardless of group differences.

## Discussion

According to Table 1, the Cronbach's Alpha coefficient is .898 (.914 when standardized), indicating strong internal consistency of the scale items. This suggests that the items in the scale consistently measure the same underlying concept of motivation toward learning hygiene practices among students in Pulau Redang. The reliability coefficient exceeds the generally accepted threshold of 0.7, commonly used in scale development and validation. This surpassing of the benchmark affirms the validity and reliability of the scale in accurately evaluating students' motivation levels (Abukhait et al., 2023).

The strong internal consistency signifies that the scale items effectively capture various aspects of motivation related to learning hygiene practices in a coherent and integrated manner. Furthermore, the dependability of the scale improves the precision of the study's findings. A reliable measurement tool is essential for ensuring the integrity and accuracy of research outcomes. Accurately measuring students' motivation levels is crucial for drawing meaningful insights and making relevant conclusions about their engagement with hygiene education, especially within the context of eco-tourism.

Moreover, the high reliability coefficient enhances the trustworthiness of the research and boosts confidence in the applicability of the results. This allows researchers and educators to use the scale not only in this study but also in similar contexts and demographics, assessing motivation for hygiene education. Overall, the strong internal consistency demonstrated by the high Cronbach's Alpha value validates the scale's reliability in measuring the motivation of school students in Pulau Redang toward learning hygiene practices. This reliability improves the accuracy of the findings, reinforces the credibility of the research, and contributes to the broader understanding of student engagement in hygiene education.

The table presents rigorously collected data that thoroughly examines the motivation levels of students in Pulau Redang in relation to their involvement in hygiene education. Each statement in the survey evaluates a different aspect of motivation, from the effort invested in learning hygiene practices to the perceived importance of maintaining cleanliness and health. The average scores, which reflect the overall sentiment, consistently exceed 4.5, indicating a strong consensus among respondents regarding their commitment to hygiene education.

The standard deviations associated with these average scores demonstrate a high level of consistency in students' motivation, implying a collective sense of dedication. This enthusiasm is further emphasized by the overall classification of motivation levels as "High" across all statements, reflecting a widespread interest and commitment to hygiene education among the student population. With a large and reliable sample, the findings strongly suggest that learning hygiene practices is highly valued within the context of eco-tourism in Pulau Redang. The pursuit of hygiene education is not only an academic obligation but also an integral part of



personal and social responsibility within the community.

The table's statistics, when interpreted within the framework of the topic "Eco-Tourism: School Students' Motivation Towards Learning Hygiene Education in Pulau Redang," provide valuable insights into the motivation levels of students in engaging with hygiene education in an eco-tourism setting.

Table 4 presents the group statistics and the results of an independent samples test, likely conducted to compare the motivation levels of male and female students. Understanding gender-specific differences in motivation is crucial for designing targeted interventions or educational strategies to enhance student engagement in hygiene education.

The data, including averages, standard deviations, and confidence intervals, provide insights into the central tendencies, variability, and accuracy of motivation scores for each gender group. Analyzing these statistics allows researchers to determine if significant gender disparities exist in motivation levels toward hygiene education. Moreover, the results from Levene's Test for Equality of Variances and the t-test for Equality of Means offer essential information about the equality of variances between gender groups and the significance of any observed differences in means. These findings are critical for understanding the robustness of the study's conclusions and the applicability of the results across different gender groups.

## Conclusion

The Cronbach's Alpha coefficient, calculated at .898 (.914 for standardized items), demonstrates a high level of internal consistency. This indicates that the scale used to measure students' motivation toward learning hygiene education is highly reliable. With a reliability score exceeding the standard threshold of 0.7, the findings are further strengthened in terms of credibility. The data suggests that school students in Pulau Redang exhibit strong motivation levels, as reflected by consistently high mean scores above 4.5 and low standard deviations. This consistency points to a firm and steady commitment to hygiene education among the students, emphasizing the critical role that hygiene education plays in both their academic and personal lives. The gender-based analysis reveals no statistically significant differences in motivation levels between male and female students, as confirmed by the t-test results. This suggests that both genders demonstrate comparable levels of motivation, thus validating the generalizability of the study's findings. These results are crucial for designing targeted educational programs aimed at enhancing student engagement in hygiene education, particularly within the context of eco-tourism in Pulau Redang.

## Acknowledgement

This research and journal article acknowledges the support and funding from Universiti Poly-Tech Malaysia-UPTM and Universiti Sultan Zainal Abidin (UniSZA) through the research grant **Kod: RS006, Project Code: UniSZA/2023/SRGS-FKI 1.0/06**, titled "**Development and Implementation of a Hygiene Education Module for Eco-Tourism on Redang Island**" We extend our sincere gratitude to UPTM and UniSZA for their invaluable contribution to the success of this project.

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