An evaluation of knowledge, attitude, and practices of local tourists towards sustainable development goals

Kiven G. Olivar *, Katherine T. Bolanio, Zeka P. Bongcas, Mae Allison C. Tutor

College of Hospitality Education, University of Mindanao, Davao, Philippines

ARTICLE INFO

ABSTRACT

The aim of this study is to examine the knowledge, attitude, and behavior (KAP) of local tourists regarding the Sustainable Development Goals (SDGs). The research employed a non-experimental, descriptive-correlational design, using a survey questionnaire distributed to a sample of 400 local tourists in Davao City. Various statistical methods were applied, including frequency analysis, Pearson correlation, mean testing, and the Sobel test. The results indicated that local tourists had a high level of awareness of the SDGs. However, their attitudes and behaviors related to sustainable development were not fully aligned with their knowledge. The study found a moderately positive relationship between knowledge and attitude, but only a weak correlation between knowledge and behavior, highlighting the gap between awareness and actual practice. Further analysis using MedGraph showed that attitude partially mediates the relationship between knowledge and behavior. Compared to other studies, these findings confirm that although sustainability awareness is high, translating this knowledge into action remains a challenge. This study contributes to ongoing discussions on sustainable tourism by stressing the need for strategies that close the gap between knowledge and behavior.

1. Introduction

In the current generation, people often experience issues that may arise within their locality. Insufficient approaches to what Sustainable Development Goals (SDGs) would mean. That is why this study addresses issues that could encounter various obstacles when taking into account the locality's practices. The study of Owojori et al. (2022), mentioned that one of the barriers that hindered the implementation of practices on the SDGs was that there weren't any places to sort trash because there wasn't a strong link between what locals knew how they felt, and what they did. Therefore, these practice problems include "planning schedules that fail to comply with rules, power disputes within individuals, and insufficient knowledge and learning processes" (Akbar et al., 2020). Practice is described as an action that is shaped by mainly accepted beliefs as well as behaviors cited by Liao et al. (2022). Significantly, sustainable practices and techniques on the part of SDG practices attributed to having a positive relationship can be influenced by various elements, including knowledge and motivation, which result in new ideas and nurture the practices (Khan et al., 2022). Furthermore, the United Nations Department of Economic and Social Affairs made significant implications on the implementation of SDGs practices last December 2020, whereas their session offered "Good Practices on SDGs" comprising individuals who had a chance to participate and gain knowledge towards SDGs practice sharing the progress and plans for improvement.

On the other hand, research from numerous studies disclosed that the level of knowledge, attitude, and practice are key determinants of environmental quality (Haim et al., 2022). Regarding the relationship between knowledge and attitude, Owojori et al. (2022) argued that having an attitude and awareness towards issues will enhance and potentially increase knowledge, wherein it influences a person's opinion and can develop an individual's attitudes. Knowledge and practices are crucial for changing behavior, along with developing skills since they pertain to assessing different issues. With these, it has been suggested that acquiring knowledge through practice can change behavior

(Liao et al., 2022). Attitudes and practices are more likely to provide a stronger belief and motivational intention towards the different issues if and only if individuals possess positive behaviors and attitudes.

Thus, researchers are driven to conduct this study to seek and offer ideas on the present status or situation of Davao City. The gap in this study involves a large number of participants from a specific area to examine the insufficient approaches to implementing SDGs among local tourists. In the absence of government policy influence, the desire and willingness of local tourists to engage with the SDGs contribute to fostering and expanding sustainable practices in academic institutions. By focusing on local tourists, this study explores their knowledge of the SDGs, attitudes toward sustainability, and actual practices. These factors are vital, as local tourists, though smaller in scale than international tourists, can have a substantial impact on sustainable tourism development at both the community and national levels. Efforts to share information could be improved by assessing local tourists' understanding of sustainable tourism concepts, and specific SDGs, and by analyzing tourist segments, particularly based on respondents' demographic profiles. This study aims to evaluate the knowledge, attitudes, and practices of local tourists regarding SDGs. Specifically, it seeks to:

- Assess the local tourists' level of knowledge about the SDGs.
- Determine the attitudes of local tourists toward the SDGs.
- Measure the practices of local tourists related to the SDGs.
- Examine the relationships between knowledge and attitude, knowledge and practice, and attitude and practice.
- Identify whether knowledge, attitude, and practice play a mediating role among local tourists regarding SDGs.

2. Literature review

Knowledge refers to units of information or 'stored facts,' indicating that individuals can store and retrieve information from memory. Afroz and Ilham (2020) defined knowledge as the cognitive understanding and awareness individuals have in a specific field. According to Ji et al. (2021), the study of human knowledge is significant in artificial intelligence (AI) research, where the main objective is to represent knowledge clearly to enable efficient problem-solving. Furthermore, Muhammed and Zaim (2020) described knowledge sharing as individuals directly participating in exchanging knowledge, especially due to increased opportunities for close interactions. This has led to greater information sharing among peers. According to O'Reilly et al. (2019), achieving effective communication requires a certain level of knowledge. Therefore, gaining and applying knowledge significantly affects how an individual

understands written information (Cervetti and Wright, 2020). Attitude denotes someone's perspective and feelings about how they think about the SDGs (Afroz and Ilham, 2020). For instance, it is claimed that "ability" refers to an intellect that has undergone growth and can be changed through education and effort. However, without a proactive approach toward utilizing that ability, it is possible for it to remain unused and therefore ineffective (Sternberg, 2022). Meanwhile, Catapano and Tormala (2021) suggested that positive attitudes are crucial in establishing favorable perspectives, consequently resulting in an increased willingness to communicate. The idea of generating these responses is known as the 'latent cognitive model.' This concept may explain the connection between people's attitudes, stereotypes, and their influence on social judgments and behaviors (Corneille and Hütter, 2020). Clearly, attitudes toward sharing information vary based on factors such as gender, academic field, and type of institution. Attitudes can influence and shape specific behavioral patterns (Owojori et al., 2022). The world is encountering numerous environmental issues that mandate an effective course of action. Thus, individuals need to cultivate the right mindset and attitude to encourage ecologically sustainable behavior (Owojori et al., 2022). Consequently, developing a positive attitude toward the sharing of information is of utmost importance. This requires a precise and practical approach (Owojori et al., 2022). Practice is commonly influenced by individuals' emotions and how they react afterward (Afroz and Ilham, 2020). Likewise, the idea of useful collaboration involves bringing together mental activity, skill, connections with others, and one's opinion of oneself in order to effectively participate in shared activities within practice limits (Resnick and Kazemi, 2019). As stated by Braun and Clarke (2022), practice stands in need of deep engagement, thinking creatively, and being compulsory. The act of engaging in regular practice is important. Individuals often exhibit enhanced performance in tasks that they are motivated to pursue.

According to Gregson (2020), the concept of practice is commonly discussed with the assumption of its inherent clarity and lack of discussion. Nevertheless, the value, meaning, and relevance of practice remain ambiguous and lack comprehensive understanding. The need for change or adjustment in practice does not solely depend on its adverse effects. Practices, regardless of their nature, possess a use that is dependent upon the level to which individuals utilize their potential. Merely engaging in established practices is unlikely to yield favorable outcomes without a dedicated adherence to their intended purpose (Julian et al., 2019). As a result, there may be limitations in improving professional performance. However, these limitations can be overcome through positive interactions among individuals regarding their practice (Redding and Layland, 2023).

3. Methodology

This study used a descriptive survey, utilizing a questionnaire as a primary tool to gather data. According to the research of Sharma (2019), Descriptive research is an approach to study that represents a scientific and systematic observation of an individual's opinion focusing on the variables present in the setting being studied. Moreover, it is collected for elaboration and analysis in the discipline seeing how effectively each individual has accomplished a survey appropriately (Olivar, 2021; Olivar et al., 2023). The primary goal of quantitative research design is to study a specific event or phenomenon, with the data typically described in numerical terms.

The participants in this study consisted of a sample of 400 local tourists. The researchers identified a total population of local tourists in Davao City, estimated at 1.8 million as of 2023. Using the Raosoft Sample Size Calculator with a 95% confidence level and a 5% margin of error, the sample size was determined. Table 1 presents the demographic breakdown of the sample population, showing key variables such as age, gender, civil status, and educational background, which helped guide the analysis of their knowledge, attitudes, and practices concerning the SDGs. The main objective of this study is to evaluate the knowledge, attitude, and practice of local tourists on sustainable development goals in Davao City.

Table 1: Demographic profile of respondents

Profile variables group		Frequency	Percent
Sex	Male	196	49.0
	Female	204	51.0
Age	<18	27	6.8
	19-24	162	40.5
	25-34	124	31.0
	35-44	59	14.8
	45-54	15	3.8
	55-64	7	1.8
	>65	6	1.5
Civil status	Single	279	69.8
	Married	105	26.3
	Widow	16	4.0
Educational attainment	College level	206	51.5
	B.Sc.	155	38.8
	M.Sc.	38	9.5
	Ph.D.	1	.3

The researcher used an adapted questionnaire from Afroz and Ilham (2020) for the knowledge, attitude, and practice of the local tourists on sustainable development goals; it was altered to fit the study's setting and presented to the panel of experts for approval. The scale used to interpret the responses of the respondents was a five-point Likert scale (5-Strongly Agree–1 Strongly Disagree).

The researchers followed these steps for data collection:

- Modification of the research instrument: First, the researchers received guidance from their research adviser before starting the study. The adviser validated and modified the adapted survey questionnaire to ensure its suitability for the local

context. This validation involved selecting qualified experts from the College of Hospitality Education at the University of Mindanao. Next, the researchers formally requested permission to conduct the study by submitting an official letter signed by their adviser to the Dean of the College of Hospitality Education.

- Distribution of the research instrument: After receiving approval, the researchers distributed the survey questionnaires to the selected respondents.
- Interpretation and analysis: The responses collected from the respondents were then organized, tabulated, and statistically analyzed by the researchers. Findings and conclusions were based on the collected data.

The statistical methods used included the mean, Pearson correlation coefficient (Pearson r), Sobel test, and MedGraph, to examine local tourists' knowledge, attitudes, and practices related to the Sustainable Development Goals. The mean provided an overall summary of respondents' answers. Pearson r measured the strength and direction of relationships between knowledge, attitudes, and practices. The Sobel test examined whether attitudes mediated (influenced) the relationship between knowledge and practices. Finally, MedGraph was used to illustrate and explain the mediation results, clarifying how local tourists engage with sustainable development practices.

4. Results and discussions

4.1. Knowledge

The knowledge of local tourists about the SDGs in Davao City is shown in Table 2. The results indicate an overall average knowledge score of 3.85, with a standard deviation of 0.661, described as "strongly agree." This means that local tourists have a good understanding of the SDGs. The low standard deviation shows consistency in their responses, suggesting that knowledge of the SDGs is common among local tourists.

According to the results obtained, authors have suggested that knowledge is an analytical understanding and awareness of people who have a connection with a specific area of learning inquiry (Afroz and Ilham, 2020). This involves knowledge sharing in the direct participation of individuals in the exchange of knowledge. As opportunities for close interaction have increased, so has the sharing of information and knowledge with peers (Muhammed and Zaim, 2020). Knowledge is the capacity to store information and the ability to recall it from a person's mind.

4.2. Attitude

Table 3 illustrates the level of attitude among local tourists regarding SDGs in Davao City. The overall mean score for attitude is 4.20, with a

standard deviation of 0.533, indicating a strong level of agreement among respondents. This suggests that local tourists exhibit a very positive attitude toward the SDGs, reflecting a significant awareness and commitment to sustainable practices.

This finding proved the investigation in accordance with Owojori et al. (2022), that attitude contains the ability to influence and affect certain behaviors. Showing a positive attitude towards assessing sustainability is important for people to develop an appropriate mentality and attitude to promote environmentally friendly behavior. With these, local tourists may feel the significance of showing concern and resilience in terms of pushing through a positive attitude toward SDGs.

Table 2: Level of knowledge of local tourists on sustainable development goals

Items	Mean	SD	Descriptive level
I have heard the term "SDGs" before	3.01	1.314	Moderately agree
I understand that the word "sustainability" means the ability to be maintained at a certain rate or level	3.43	1.274	Agree
I am aware that the Sustainable Development Goals are targeted to be achieved by the year 2030	3.06	1.403	Moderately agree
The overuse of natural resources is affecting the well-being of future generations	4.07	1.013	Agree
To achieve sustainable development, all people in the world must have access to good education	3.93	1.013	Agree
Environmental protection, economic growth, and social equity are the fundamental elements of a nation	4.03	0.983	Agree
Healthy oceans and seas are essential to our existence	4.50	0.875	Strongly agree
Increased use of renewable resources can reduce greenhouse gas emissions	4.28	0.886	Strongly agree
Income inequality is a global problem that requires global solutions	4.19	0.767	Agree
Maintaining good relationships with various countries is crucial to preserving peace around the world	3.98	0.964	Agree
Overall	3.85	0.661	Agree

SD: Standard deviation

4.3. Practice

The data on local tourists' practice of SDGs in Davao City are shown in Table 4. The overall average score is 3.88, with a standard deviation of 0.594, described as "agree." This result indicates that local tourists actively practice behaviors that align with the SDGs, demonstrating their strong commitment to sustainable tourism. According to the authors, people's feelings and responses during practice may be influenced by certain factors (Afroz and Ilham 2020). For the reason that it brings if the value, meaning, and significance of practice are not well understood and clear, the practice is unlikely to produce the expected results (Gregson, 2020; Julian et al., 2019). Effective collaboration requires a local's motivation to change their behavior and desire to engage in these practices (Redding and Layland, 2023).

Table 3: Level of attitude of local tourists on sustainable development goals

Items	Mean	SD	Descriptive level
Reducing poverty and hunger in the world is more important than increasing the economic welfare of industrialized countries	4.15	0.668	Agree
Society should be provided with high-quality basic health services	4.47	0.452	Strongly agree
Raising awareness of the Sustainable Development Goals among university students is necessary	4.10	0.659	Agree
Basic environmental courses should be part of our university curriculum	3.85	0.306	Agree
Males and females should be treated equally in all aspects of life	4.44	0.433	Strongly agree
The rise in global temperature has increased water scarcity	4.35	0.721	Strongly agree
Environmental problems are a matter of concern to me	4.36	0.524	Strongly agree
People from diverse cultural backgrounds must be treated with equal respect	4.40	0.676	Strongly agree
I try to conserve electricity at home	4.17	0.047	Agree
I try to reduce household waste by collecting recyclable materials	4.08	0.853	Agree
Functional and resilient infrastructure is the foundation of every successful community	4.15	0.758	Agree
The government should take sustainability into greater account in its political decisions	4.08	0.827	Agree
Research and educational institutions should prioritize sustainability in their activities and campaigns	4.19	0.709	Agree
I believe participating in a sustainable lifestyle will promote global peace and justice	4.05	0.798	Agree
Overall	4.20	0.533	Strongly agree

Table 4: Level of practice of local tourists on sustainable development goals

Items	Mean	SD	Descriptive level
I avoid using plastic straws at restaurants and cafés	3.30	1.164	Moderately Agree
I bring my own reusable bag for grocery shopping	3.73	1.235	Agree
I discard recyclable materials (e.g., plastic bottles, newspapers, glass) separately at home	3.77	1.133	Agree
I conserve water usage at home	4.30	0.685	Strongly agree
I treat people equally regardless of their caste, creed, or religion	4.40	0.557	Strongly agree
I prefer public transport over private transport	3.74	1.221	Agree
I switch off the air conditioning and lights in classrooms after classes finish and become empty at my university	4.08	0.062	Agree
I switch off electrical appliances at home that I don't need or when I'm not around	4.34	0.918	Strongly agree
I am willing to use renewable energy sources	4.44	0.341	Strongly agree
I avoid using products made from animal skin	4.08	0.692	Agree
I am willing to pay more for environmentally friendly products	3.77	1.039	Agree
I have taken courses related to environmental sustainability	3.42	1.469	Agree
I participate in events (e.g., seminars, talks, workshops) related to environmental sustainability	3.52	1.206	Agree
I discuss environmental sustainability with my friends and family	3.59	1.275	Agree
Overall	3.88	0.594	Agree

4.4. Correlation between knowledge and attitude, knowledge and practice, and attitude and practice

Table 5 shows the correlation between knowledge and attitude; knowledge and practice; and attitude and practice. It is evident that the knowledge correlated to attitude has r=0.505**, knowledge and practice has r=0.262**, and attitude and practice has r=0.202**. This means that knowledge and attitude have a moderately positive relationship. While knowledge and practice; attitude and practice are both weak positive relationships. To support the following result, showing that being knowledgeable enough to understand the environment only sometimes automatically translates into effective behavior or attitude. The fact that there is a high level of knowledge about the SDGs does not guarantee an adequate level of practice (Afroz and Ilham, 2020).

4.5. Mediation analysis of the three variables

The result of the mediation is displayed in Fig. 1. The Sobel test yielded a z-value of 10.0355 with a p-value of 0.000, which is a significance of 0.05. This shows the entire set of mediation results generated by MedGraph provides us that attitude is a significant mediator between knowledge and practice.

Furthermore, the causal relationship between knowledge and attitude has decreased from a significant beta coefficient value of 0.735 to 0.043, which is effective for including attitude as a mediator variable. It has been seen that there needs to be a stronger correlation between local tourist knowledge and its level of practice towards sustainable development goals in Davao City. This finding indicates that, despite the high level of expertise among local tourists, their level of practice could be better. On the other hand, the indirect effect between knowledge and practice via the attitude of local tourists on sustainable development goals in Davao City is statistically significant.

The investigation found that local tourists could benefit from learning how to make effective use of the resources available, known as practices, rather than just demonstrating their stock knowledge of these resources (Afroz and Ilham 2020). This strategy not only improves local tourists but also enhances and nurtures what sustainable development goals and practices can offer them. In summary, practice can be evaluated by their attitude and knowledge through motivation (Khan et al., 2022).

Table 5: Correlation between Knowledge and attitude; Knowledge and practice; and Attitude and practice

Variables correlated	r-value	Verbal description	df (n-2)	p-value	Decision
Knowledge vs. attitude	0.505**	Moderate positive relationship	398	0.000	Ho is rejected
Knowledge vs. practice	0.262**	Weak positive relationship	398	0.000	Ho is rejected
Attitude vs. practice	0.202**	Weak positive relationship	398	0.000	Ho is rejected

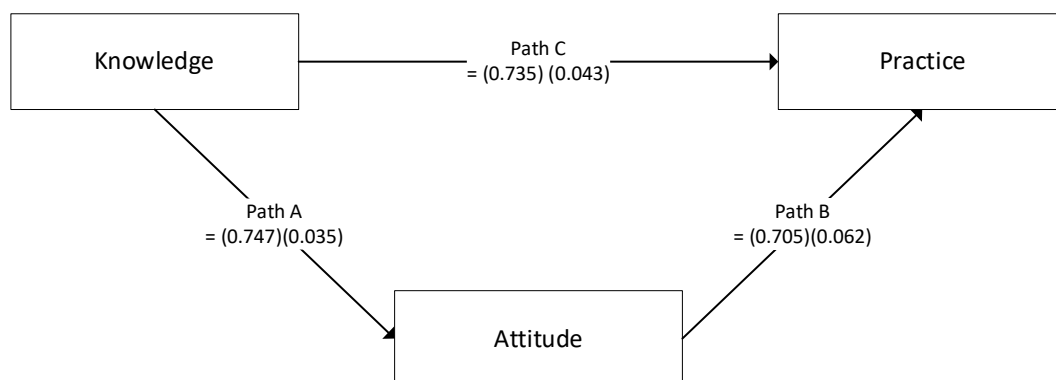**: Correlation is significant at 0.01 level (2-tailed)

Fig. 1: An evaluation of knowledge, attitude, and practice of local tourists on sustainable development goals in Davao City

5. Conclusions

This study enhances our understanding of the roles of local tourists in sustainable development by examining their knowledge, attitudes, and practices regarding SDGs in Davao City. By focusing on these aspects, this research studies a new dimension to the discourse on sustainable tourism, filling a critical gap and offering fresh insights into local-level sustainability efforts. The findings indicate that local tourists have a high level of understanding of the SDGs, which is consistent with the goal of establishing a sustainable future by 2030. This involves important issues including environmental protection, education, economic growth, social justice, marine health, responsible resource use, and global peace. The significant agreement among participants emphasizes the need to cultivate knowledge of these objectives in order to increase local tourists' engagement in sustainable activities.

Moreover, the attitudes of local tourists towards SDGs were found to be positive, advocating for equal

treatment across genders and promoting respect for cultural diversity. Such attitudes are essential for achieving equitable growth goals and can facilitate more effective collaboration among individuals and groups.

However, this study also revealed that while local tourists express positive attitudes and knowledge, their actual practices in sustainability are less robust. Many engage in practices like using reusable bags, conserving water, and utilizing public transportation, but there remains a notable gap in the execution of these behaviors. This indicates that a lack of accountability and awareness may hinder the effectiveness of sustainable activities within the community.

The analysis of the relationships between knowledge and attitude, knowledge and practice, and attitude and practice revealed strong correlations, suggesting that knowledge significantly influences attitudes and practices. Furthermore, the mediation analysis indicates that attitudes play a crucial role in bridging the gap between knowledge and practice.

In conclusion, this study emphasizes the necessity of addressing the discrepancies between knowledge, attitudes, and actual practices among local tourists. By reinforcing their understanding of and commitment to the SDGs, we can enhance their contributions to sustainable tourism development in Davao City and beyond.

5.1. Recommendations

In accordance with the results gathered by researchers, the following recommendations are proposed. The researcher made a recommendation in terms of knowledge of the latest advances in sustainable tourism. Meetings, seminars, events, and training related to sustainable tourism practices are the best examples to consider for knowledge sharing. While some individuals have enough knowledge about the significance of the SDGs, others remain uninformed about their purpose. The researchers suggest that SDGs must be integrated into educational settings to enlighten and educate people about their importance, which aligns with Sustainable Development Goal 4—Quality Education.

Based on the findings of the survey, it is evident that local tourists have an encouraging attitude toward the SDGs, describing it as an innate ability that has been developed throughout their early years. To maintain a positive view and harness the potential of tourists, it is important for policymakers to consistently incorporate SDGs, especially SDG 11—Sustainable Cities and Communities—into their campaign strategies. They should foster public awareness and prioritize addressing poverty and hunger.

Most people do not practice the SDGs due to various factors that hinder their implementation, such as a lack of stability that causes conflicts between nations. To address this issue, it is crucial to ensure that programs are tailored to fit the community's needs. Additionally, effective governance, including political decisions that transform these development programs into long-term practices, is essential.

The findings also suggest that stakeholders should enhance educational programs focused on sustainable tourism. Implementing regular workshops, seminars, and community events can effectively disseminate knowledge about sustainable practices. Collaboration between tourism operators and local businesses to create eco-friendly tourism packages can further engage local tourists in sustainability efforts.

Lastly, strengthening Sustainable Development Goal 17—Partnership for the Goals—will facilitate the establishment of partnerships among various stakeholders, ensuring that resources and knowledge are shared effectively to achieve sustainable tourism objectives.

Compliance with ethical standards

Ethical considerations

Informed consent was obtained from all participants, and their anonymity and confidentiality were ensured. The study adhered to institutional ethical standards.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

Afroz N and Ilham Z (2020). Assessment of knowledge, attitude and practice of university students towards sustainable development goals (SDGs). The Journal of Indonesia Sustainable Development Planning, 1(1): 31-44. https://doi.org/10.46456/jisdep.v1i1.12

Akbar A, Flacke J, Martinez J, and van Maarseveen MF (2020). Participatory planning practice in rural Indonesia: A sustainable development goals-based evaluation. Community Development, 51(3): 243-260. https://doi.org/10.1080/15575330.2020.1765822

Braun V and Clarke V (2022). Conceptual and design thinking for thematic analysis. Qualitative Psychology, 9(1): 3-26. https://doi.org/10.1037/qup0000196

Catapano R and Tormala ZL (2021). Do I support that it's good or oppose that it's bad? The effect of support-oppose framing on attitude sharing. Journal of Personality and Social Psychology, 121(1): 23-42. https://doi.org/10.1037/pspa0000266 **PMid:33617285**

Cervetti GN and Wright TS (2020). The role of knowledge in understanding and learning from text. In: Moje EB, Afflerbach PP, Enciso P, and Lesaux NKH (Eds.), Handbook of reading research: 237-260. 1st Edition, Routledge, New York, USA. https://doi.org/10.4324/9781315676302-13

Corneille O and Hütter M (2020). Implicit? What do you mean? A comprehensive review of the delusive implicitness construct in attitude research. Personality and Social Psychology Review, 24(3): 212-232. https://doi.org/10.1177/1088868320911325 **PMid:32193993**

Gregson M (2020). In practice: The importance of practitioner research in vocational education. Education Sciences, 10(3): 79. https://doi.org/10.3390/educsci10030079

Haim NSMA, Abas MA, Idris NSFU, Hairudin NSSM, and Malek NHMA (2022). Knowledge, attitude and practices on environmental sustainability among the residents at Jalan Tualang, Kulai Johor based on their educational background. IOP Conference Series: Earth and Environmental Science, 1102(1): 012067.
https://doi.org/10.1088/1755-1315/1102/1/012067

Ji S, Pan S, Cambria E, Marttinen P, and Philip SY (2021). A survey on knowledge graphs: Representation, acquisition, and applications. IEEE Transactions on Neural Networks and Learning Systems, 33(2):494-514.
https://doi.org/10.1109/TNNLS.2021.3070843
PMid:33900922

Julian B, Noble J, and Anslow C (2019). Agile practices in practice: Towards a theory of agile adoption and process evolution. In: Kruchten P, Fraser S, and Coallier F (Eds.), Agile processes in software engineering and extreme programming: 20th International Conference: 3-18. Springer International Publishing, Berlin, Germany.
https://doi.org/10.1007/978-3-030-19034-7_1

Khan PA, Johl SK, and Akhtar S (2022). Vinculum of sustainable development goal practices and firms' financial performance: A moderation role of green innovation. Journal of Risk and Financial Management, 15(3): 96.
https://doi.org/10.3390/jrfm15030096

Liao X, Nguyen TPL, and Sasaki N (2022). Use of the knowledge, attitude, and practice (KAP) model to examine sustainable agriculture in Thailand. Regional Sustainability, 3(1): 41-52.
https://doi.org/10.1016/j.regsus.2022.03.005

Muhammed S and Zaim H (2020). Peer knowledge sharing and organizational performance: The role of leadership support and knowledge management success. Journal of Knowledge Management, 24(10): 2455-2489.
https://doi.org/10.1108/JKM-03-2020-0227

Olivar KG (2021). The mediating effect of quality on the relationship between customer satisfaction and loyalty of three-star hotels. The International Journal of Business Management and Technology, 5(6): 22-37.

Olivar KG, Ubaldo KT, Espinosa SR, and Gutierrez JC (2023). The mediating effect of career competency from management to employees' satisfaction of tourism industry. Journal of Tourism Studies and Hospitality Research, 4(1): 145.

O'Reilly T, Wang Z, and Sabatini J (2019). How much knowledge is too little? When a lack of knowledge becomes a barrier to comprehension. Psychological Science, 30(9): 1344-1351.
https://doi.org/10.1177/0956797619862276
PMid:31343951

Owojori OM, Mulaudzi R, and Edokpayi JN (2022). Student's knowledge, attitude, and perception (KAP) to solid waste management: A survey towards a more circular economy from a rural-based tertiary institution in South Africa. Sustainability, 14(3): 1310.
https://doi.org/10.3390/su14031310

Redding S and Layland A (2023). Practice-focused collaboration: Getting better together, efficiently. Academic Development Institute, Lincoln, USA.

Resnick AF and Kazemi E (2019). Decomposition of practice as an activity for research-practice partnerships. AERA Open, 5(3).
https://doi.org/10.1177/2332858419862273
PMid:32984440 PMCid:PMC7473064

Sharma S (2019). A quantitative ex-post-facto study for one-to-one mobile technology. Horizons University, Paris, France.

Sternberg RJ (2022). The intelligent attitude: What is missing from intelligence tests. Journal of Intelligence, 10(4): 116.
https://doi.org/10.3390/jintelligence10040116
PMid:36547503 PMCid:PMC9785166