An Interventional Storybook for Inculcating Responsible Travel Behavior among School-Age Children: An Exploratory Case Study

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Abstract

This research investigates the effectiveness of an interventional storybook as a tool for inculcating responsible tourist behavior in school children aged 6 to 12 years old. The research used an exploratory case study approach, testing the developed narrative among 69 participants and their parents. Data was collected through a self-complete quiz and two online surveys aimed at the children’s parents. The findings showed that the participants grasped the responsible tourism concept and were aware of the responsible travel practices presented within the storybook. The research findings suggested that storybooks can be a helpful tool for promoting responsible travel behavior among school children. These findings have practical implications for tourism and education academia, and environmental authorities as well, for they highlight the potential of storybooks in engaging young children in sustainable tourism development. The research at hand contributes to the growing body of knowledge on children's empowerment in sustainable tourism development.

Keywords: Storybooks, Interventional Narratives, Environmental Education, Responsible Travel Behavior.

1. Introduction

The COVID-19 pandemic crisis has deeply impacted the global tourism industry. Enforcing worldwide travel restrictions led to a sharp decline in international tourism arrivals that fell by 74 percent compared to 2019 (UNCTAD, 2021; UNWTO, 2020a). As a result, the travel and tourism industry incurred unprecedented losses estimated at 300 to 450 US billion, surpassing the negative impacts of both the SARS crisis of 2003 (Rahman et al., 2021) and the 2009 economic crisis.

Overall, the COVID-19 crisis has highlighted the vulnerability of the travel and tourism industry (Gössling et al., 2020; OECD, 2020a) and accelerated the need to build a stronger more resilient tourism economy (OECD, 2020a; Sharma et al., 2021). Nevertheless, the COVID-19 crisis presented an opportunity to rethink future tourism that is “economically, socially, and environmentally viable in the long-term” which requires tourist destinations to reshape their tourism strategies and adopt more sustainable and resilient models of tourism development (ETC, 2021).

In other words, rebuilding the tourism sector requires a stronger commitment to sustainability. Consequently, tourist
destinations should encourage all stakeholders to adopt sustainable tourism practices to support the destinations’ path to recovery and help in their adaptation to the post-pandemic tourism economy (Kristiana et al., 2021; OECD, 2020b).

That is why, tourist destinations have a crucial role in encouraging both the tourism supply and demand sides to act more responsibly by raising awareness of the sustainability concept among tourism service providers and travelers such that the tourism sector can significantly contribute to the local community and minimize the negative impacts on the environment and travelers make more conscious and responsible travel choices too (ETC, 2021).

Since children are adults in the making (Yeoman et al., 2012), today’s children are tomorrow’s travelers and active consumers of tourism services and leisure activities. Therefore, this research aims to better understand children as active agents for future sustainable tourism development by exploring the effectiveness of an interventional storybook specifically created as an informative tool for inculcating responsible tourist behavior in Egyptian children and encouraging them to adopt sustainable tourism practices in the future.

2. Research Importance

For the last two decades, tourism research has recognized the significance of domestic tourism, particularly for developing countries (Ghimire, 2001) for its ability to generate economic benefits to overcome the seasonality of international tourism demand (Rogerson and Zoleka, 2017). This significance has clearly manifested lately, as the demand for domestic tourism increased amid the Covid-19 pandemic worldwide where several tourist destinations turned to domestic tourism to alleviate the negative impacts of the pandemic crisis on their local tourism economies (OECD, 2020b).

Although there is not enough data on Egyptian domestic tourism (Soliman and Mohamed, 2021), however, according to (Elsayed et al., 2021) Egyptian tourists’ demand for domestic tourism increased amid COVID-19. Also, a 26 percent increase in online searches relating to domestic tourism in Egypt during the summer season of the year 2020 was reported (Alaa EL-Din, 2020).

Nevertheless, according to Soliman and Mohamed (2021), local tourism authorities in Egyptian tourist destinations are not giving due attention to educating domestic tourists about appropriate behavior in tourist areas or how local cultures and customs should be respected. They further asserted that if the tourism authorities do not take sound measures to prevent these misconducts, such behaviors are more likely to proliferate, significantly harming the tourist sector. Therefore, it is critical to examine Egyptian tourists’ current travel behavior and try to alter their negative behaviors by educating them on how to act responsibly during travel.

Since children are tourists of the future, and it was revealed that they have a strong influence on their parents’ travel behavior and environmental knowledge and attitudes (Rakotomamonjy et al., 2015; Zwerts et al., 2010), accordingly, environmental education (EE) should be prioritized in school curricula, giving students the opportunity to develop their knowledge of the environment and how to protect it (Aurélio et al., 2021). Nevertheless, there is a significant absence of environmental education in early and middle childhood school curricula in Egypt (Faragallah, 2016).

The Egyptian education system does not contribute to raising environmental awareness among Egyptian school students due to the
absence of environmental courses and activities within the current school curricula which place little emphasis on environmental education (Faragallah, 2016; Selim and El Raey, 1999).

Some of the most essential environmental concepts, such as sustainability, are ignored in Egyptian school curricula. For example, the sixth-grade social science textbook discusses tourism in Egypt's western desert oases, but it does not mention how to preserve these natural resources for future generations or how to behave responsibly when they visit these fragile tourist areas (Faragallah, 2016).

In other words, Egyptian school students lack environmental general knowledge and show negative attitudes toward environmental issues (Abd El-Salam et al., 2009; Faragallah, 2016), and this can be attributed to the weak textbooks and curricula and the lack of trained teachers (Faragallah, 2016). Similarly, El-Mahdi et al. (2023) discussed the inadequacies of Egyptian curricula in emphasizing the significance of environmental education. Thus, there is a dire need for developing and implementing environmental education programs as an integral component of Egyptian school curricula (Abd El-Salam et al., 2009).

Nonetheless, environmental education is more of ‘a way of thinking and practice’ rather than an ‘add-on’ school subject (Davis, 1998; Muranen, 2014). Although environmental education provides the necessary values transformation needed to embrace more sustainably and socially equitable life choices (Davis, 1998), to alter the children’s values, attitudes, and actions toward social and ecological responsibility, children require the adults in their lives either parents or teachers to be environmentally educated. This means that environmental education is a process that involves children, parents, and teachers all working together toward resolving imminent environmental and social problems (Ardoin and Bowers, 2020; Davis, 1998).

Hence, the current study purposefully chose to educate children on responsible tourism by creating an interventional storybook that targets young children and their parents to inculcate responsible travel behavior, thus creating a positive attitude toward tourism, the environment, and host communities.

Accordingly, the study’s research question to be explored is “Can storybook read-aloud help inculcate responsible tourist behavior in children and raise responsible tourism awareness among them and their parents?”

Generally, intervention studies aimed at influencing children’s environmental attitudes and travel behavior are relatively uncommon (Zelezny, 1999). The scarcity of intervention research to alter tourist behaviors is an evident deficiency in tourism literature since today’s children will not only make environmentally significant decisions in the future but can also influence their parents’ environmental attitudes to eventually alter their travel behaviors into more responsible ones (Damerell et al., 2013; Vaughan et al., 2003) which justifies the significance of the current research study.

3. Research Objectives

The primary purpose of this research is to encourage young children and their parents to practice environmental and social responsibility during their travels. The research also aims to investigate Egyptian families’ responsible travel behavior in both pre-trip and on-trip stages as well as their willingness to adopt responsible travel behavior in the future after reading the storybook.
4. Literature Review

This section is mainly concerned with reviewing past literature addressing the concepts of responsible tourism, responsible travel behavior, and environmental education. The role of children's storybooks in environmental education is also discussed.

4.1 Responsible Tourist Behavior

The term responsible tourism was first coined in 1989 at the World Travel Organization seminar on alternative tourism in Algeria (Stanford, 2006) where it was decided that the term “responsible” is much more precise than “alternative” for describing “…all forms of tourism which respect the host’s natural, built, and cultural environments and the interests of all parties concerned” as reported by (Smith, 1990, p.480).

Harrison and Husbands (1996, p.5) described responsible tourism as “a set of practices”, and further explained that responsible tourism is a matter of practicing tourism in ways that minimize and alleviate its obvious disadvantages.

Similarly, the Cape Town Declaration (2002) defined responsible tourism as ‘tourism that maximizes the benefits to local communities, minimizes negative social or environmental impacts, and helps local people conserve fragile cultures and habitats or species’’ and further emphasized that the core concept of responsible tourism is ‘making better places for people to live in and better places for people to visit’’ (Cape Town Declaration, 2002; Goodwin, 2016).

Overall, scholars recognize responsible tourism as the broad principle of reducing the negative impacts of tourism activity at tourist destinations meanwhile increasing the destinations' benefits in terms of economy, environment, society, and culture (Gao et al., 2016; Lee et al., 2017; Mathew and Sreejesh, 2017).

Therefore, to sum up, responsible tourism is all about the actions that individuals take to make tourism more sustainable (Caruana et al., 2014; Goodwin, 2013; Kallio, 2018; Mihalic, 2016; Stanford, 2006).

In this sense, responsible tourism is not considered a type of tourism but rather an ideology fostering a sense of responsibility toward the tourist destinations being visited where travelers behave responsibly toward the ecology, culture, and local people of the places they visit (Weeden, 2014).

This means that tourists have an indispensable role when it comes to making tourism more responsible (Kallio, 2018). Stanford (2008, p.258) described tourists as the ‘center of responsible tourism’ and further argued that they can significantly contribute to sustainable tourism by acting responsibly at destinations. In similar ways, Goodwin (2011) emphasized the importance of engaging tourists for the successful implementation of responsible tourism asserting that tourists’ daily choices and decisions can help shape tourism.

Generally, responsible tourist behavior is a behavior that reflects the destination visitor’s understanding of the impacts of his/her actions on the environment and entails his/her acting in accordance with the destination norms (Said, 2018; Wang et al., 2018). Accordingly, responsible behavior at a destination involves respecting the host community’s culture and lifestyle, enhancing the welfare of local residents, and protecting the natural environment (Chiu et al., 2014).

Thus, a responsible tourist is one who seeks to respectfully enjoy the culture, customs, traditions, and cuisine of the local community and always attempts to contribute to the development of responsible and sustainable...
tourism (Debicka and Oniszczuk-Jastrzabekm, 2014). In other words, responsible tourists are tourists who work to minimize their negative environmental impacts, support environmental conservation initiatives, and refrain from disrupting a destination's ecosystem and biosphere while on vacation (Lee et al., 2013).

In the tourism context, several scholars have attempted to define the responsible tourist behavior (Kim and Thapa, 2018; Puhakka, 2011; Wang et al., 2018). On one hand, these preceding studies discussed responsible tourist behavior pertaining to how respectfully tourists behave towards the environmental and cultural resources of visited destinations, as well as how much awareness they have of the impacts they are exerting.

Thapa (2010) on the other hand, chose a more proactive approach when discussing responsible tourist behavior by incorporating education, political action, community involvement, and green consumption into the context of responsible behavior.

To sum up, responsible tourist behaviors are the behaviors and actions that safeguard the local environment, respect local culture, benefit local communities, improve tourism sustainability, reduce the adverse impacts on the destination, and promote destination resilience (Gong et al., 2019; Hu and Sung, 2022).

**4.2 Children’s Environmental Education**

Several scholars advocated the effectiveness of environmental education in improving young children’s knowledge, attitudes, intentions, and behaviors toward the environment (Abd El-Salam et al., 2009; Barman, 2014; Davis, 1998; Falkiewicz-Szult, 2014; Hsiao and Shih, 2016; Rakotomamonjy et al., 2015; Van de Wetering et al., 2022).

Overall, environmental education (EE) refers to all the methods, tools, and initiatives that aim to develop environmental awareness, knowledge, values, attitudes, and skills preparing individuals to make environmentally responsible choices (Ardoin et al., 2020; Monroe and Krasny, 2016).

According to the principles of "Agenda 21," environmental education should start in early childhood and any negligence in early education cannot be compensated and could become a significant obstacle to achieving sustainable development (Falkiewicz-Szult, 2014) as attitudes about the environment evolve at a young age (Asunta, 2003; Basile, 2000) and once formed, it is difficult to alter them later on, which means if children do not develop positive attitudes or responsible behaviors toward the environment in their early years of life, it is more likely that they will not develop them at all (Basile, 2000; Kahriman-Ozturk et al., 2012; Tilbury, 1994).

Thus, children's environmental education seeks to inculcate environmental ethical values so that they can be environmentally conscious adults in the future (Barman, 2014; Ye and Shih, 2020). This means that the goal of environmental education is to help children acquire the fundamental knowledge, skills, and attitudes they need to grow up to be environmentally responsible adults (Ye and Shih, 2020).

According to Jeronen and Kaikkonen (2002), implementing environmental education initiatives enhances young children's environmental sensitivity and increases their environmental awareness and knowledge. Similarly, Rakotomamonjy et al. (2015) stated that environmental education helps to increase children's knowledge and understanding of the environment, eventually improving their attitudes towards it.
Moreover, children who get environmental education tend to affect their parents' environmental knowledge (Damerell et al., 2013; Duvall and Zint, 2007) and even impact their parents' environmental attitudes as the Procter and Gamble (2021) survey study reported that most parents revealed their children’s influence their sustainable behaviors in their households.

Since stories have the ability to increase children’s knowledge and evoke their curiosity (Kaser, 2001). Accordingly, a storybook is an efficient tool for teaching children important concepts and helping them acquire new skills (Hirsh-Pasek and Golinkoff, 2003; Hsiao and Shih, 2015).

Hence, several scholars found that stories can contribute to a better understanding of environmental concepts and ecological issues (Barraquosa et al., 2019; Hsiao and Shih, 2016) as educating children through environmental storytelling enhances their emotional and imaginative engagement with the natural world which in turn can help them to become more environmentally aware (Hadzigeorgiou and Judson, 2017).

Medress (2008) stated that storybooks have the potential to inculcate long-lasting environmental values in children that will stick with them till their adulthood. Also, Aurélio et al. (2021) found that storybooks can be valuable tools for promoting environmentally responsible behavior.

Rice (2002) revealed that storybooks can help children gain knowledge and understand concepts better than textbooks. Similarly, Medress (2008) argued that environmental storybooks have advantages over textbooks and green guides as they have the ability to tap into children’s emotional and sensory sides and trigger their imagination while presenting them with environmentally responsible role models which can greatly influence the children’s future characters and empower them to make a change.

Several studies used storybooks in environmental education for school children and found that using storybooks improved children's environmental concepts and learning skills (Bradbery, 2013; Chen, 2009; Debby, 2007; Hsiao and Shih, 2016, 2015; Liu and Wang, 2003; Wang, 2011), nevertheless, the use of interventional storybooks for inculcating responsible travel behavior in school children is rarely discussed in the tourism context.

5. Methodology

To the researcher’s best knowledge, no previous studies have discussed children’s responsible travel behavior in Egypt, nor designed interventional storybooks to help raise awareness of responsible tourism. Thereby, the research at hand adopted an exploratory case study research approach (Yin, 1994, 2017) that focused on developing and testing an interventional storybook to provide an initial understanding of the effectiveness of storybook read-aloud in inculcating responsible travel behavior among children.

5.1 Procedures

An interventional storybook titled “The Brown Family Vacation to Siwa Oasis” was specifically developed for the purpose of this research investigation. This instructional narrative was particularly created to teach children how to respect the environment, culture, and people of the places they visit. By following the story events, children should be able to act responsibly during travel while the research at hand examines whether this particular storybook contributed to children’s understanding of responsible tourism and responsible travel behavior or not.
This instructional narrative (see Appendix A) provided readers with a list of 10 basic Dos and Don’ts for responsible travel which were adapted from (CREST, 2021; Pennington-Gray and Thapa, 2004; Spenceley and Rylance, 2016; UNWTO, 2020b; Xuan Hao and Pham Hung, 2022). A glossary for difficult tourism/environmental terms and ideas for further discussions were also included.

To evaluate the children’s grasp of responsible travel practices, a short self-complete quiz consisting of 10 multiple-choice questions was developed. The quiz items were mainly adapted from (Brokou et al., 2022; CREST, 2019; Özlem Çalış et al., 2013; Pennington-Gray and Thapa, 2004; Roe et al., 1997; Spenceley and Rylance, 2016; Xuan Hao and Pham Hung, 2022).

The sentence structures and the wording were altered to be easier for children to comprehend. The responsible travel quiz questions are listed in Table 1. The narrative was edited, and language proofed by two primary school teachers of English to make sure the narrative was clear enough for students to comprehend.

Table 1 Responsible Travel Quiz Questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>Type</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1  What is responsible tourism?</td>
<td>WH-Question</td>
<td>Adapted from (Brokou et al., 2022)</td>
</tr>
<tr>
<td>Q2  What is an example of responsible travel behavior?</td>
<td>WH-Question</td>
<td>-</td>
</tr>
<tr>
<td>Q3  Take only photos, leave only footprints while visiting natural sites and monuments. What does it mean?</td>
<td>WH-Question</td>
<td>Adapted from (Roe et al., 1997)</td>
</tr>
<tr>
<td>Q4  You support local businesses while on a vacation by</td>
<td>Completion</td>
<td>Adapted from (CREST, 2019)</td>
</tr>
<tr>
<td>Q5  ------ helps reduce carbon footprint while traveling.</td>
<td>Completion</td>
<td>(Spenceley and Rylance, 2016)</td>
</tr>
<tr>
<td>Q6  It is important to respect local customs and traditions when traveling.</td>
<td>Yes/No Question</td>
<td>Adapted from (Pennington-Gray and Thapa, 2004)</td>
</tr>
<tr>
<td>Q7  It is ok to take photos of local people without asking for their permission first.</td>
<td>Yes/No Question</td>
<td>Adapted from (Pennington-Gray and Thapa, 2004)</td>
</tr>
<tr>
<td>Q8  It is ok to take part in activities that exploit animals.</td>
<td>Yes/No Question</td>
<td>Adapted from (Özlem Çalış et al., 2013)</td>
</tr>
<tr>
<td>Q9  We should dispose of trash properly and never leave waste behind.</td>
<td>Yes/No Question</td>
<td>(Xuan Hao and Pham Hung, 2022)</td>
</tr>
<tr>
<td>Q10 Using reusable water bottles and bags helps to reduce waste.</td>
<td>Yes/No Question</td>
<td>(Xuan Hao and Pham Hung, 2022)</td>
</tr>
</tbody>
</table>

5.2 Sampling

Since storybook reading is a highly valued and widely practiced home-school routine across the international education systems in Egypt. Also, international school students have a good command of English, and they practice reading storybooks and answering online quizzes on their own from a young age without their parent’s help, especially lately, after the COVID-19 pandemic. Therefore, the study targeted international school students in Alexandria, Egypt, and their parents. Both convenience and snowball sampling were used, where each parent was asked to recruit one or two more participants.

Generally, children’s development during middle childhood (ages of 6 to 12) significantly impacts their adulthood, as at this age, they begin to acquire new skills and are given more duties and responsibilities within their homes and communities (Eccles, 1999; Province of Manitoba, n.d.). Moreover,
An Interventional Storybook for Inculcating Responsible Travel Behavior among School-Age Children

Radwa Ali Hamed

5.3 Measurement
For the purpose of data collection, two online surveys were developed. The first questionnaire (pre-storybook reading) aimed at examining the children’s family travel behavior in terms of travel frequency, means of transportation, travel preference, travel choice, children’s influence on travel choices, destination research, supporting local businesses, reducing environmental impact, and engaging with the local community at the travel destination and familiarity with the term responsible travel. In addition to collecting demographic data (gender, age, education). Questionnaire questions were adapted from previous literature on travel behavior (Alizadeh and Sharifi, 2023; De Vos, 2018) and responsible travel (ETC, 2021; Hu and Sung, 2022; Said, 2018; Weeden, 2008).

The second questionnaire (post-storybook reading) aimed at capturing the parents’ opinion of the storybook effectiveness in teaching their children responsible travel behavior and evaluating their willingness to make responsible choices when planning future vacations.

The two parents’ questionnaires and the responsible travel quiz were created using Google Forms. The links to the two questionnaires and the quiz were embedded in the storybook PDF file, which was sent to the parents via Facebook Messenger and WhatsApp.

Each parent was asked to answer the first survey, read the story aloud with his/her child and discuss it, allow the child to answer the quiz on his/her own, and then answer the second survey.

To reduce the time needed and ensure that the participants completed the required task and did not quit in the middle, the two surveys and the quiz were kept short (10 questions each). Three types of close-ended questions (dichotomous, check all that apply, and multiple choice) were used in the surveys and the quiz rather than Likert-scale questions so that the participants could respond more quickly and easily without having to put in too much effort (Hyman and Sierra, 2016; Stiles, 2015). Also, Likert-scale questions are harder for children aged 6-12 and even older to comprehend (Coombes et al., 2021; Mellor and Moore, 2014) or respond to on their own. One open-ended question was added at the end to investigate how the storybook inspires respondents to make responsible travel choices in the future and examine their final thoughts or comments on the storybook.

5.4 Validity and Reliability
A pre-test in the form of a discussion with a group of ten students and their parents who were sent the storybook earlier to read was conducted to establish the quiz and two questionnaires’ face validity. The purpose of the pre-test was to determine whether the quiz and the two surveys were clear and understandable for the participants or not, to determine how long it takes to read the story and complete the quiz and two short surveys, and to gather helpful comments and suggestions. In order to improve children’s
understanding of the quiz, one question’s wording was altered.

To establish the reliability of the MCQ quiz (Table 2), the Kuder-Richarson Formula (KR-20), as well as Cronbach’s Alpha (α), were used. The KR-20 reliability score was 0.7493 which is an acceptable value for short tests and quizzes (Axelson and Kreiter, 2009; Obon and Rey, 2019). Cronbach’s alpha score was 0.7440 which is an acceptable value also as 0.70 and above is an agreed-upon value for Cronbach’s α (George and Mallery, 2003; Hair et al., 2010; Nunnally, 1978). Therefore, the reliability (internal consistency) of the quiz is realized.

Table 2 MCQ Quiz Reliability

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
<th>Interpretation</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuder-Richarson Formula 20 (KR-20)</td>
<td>0.7493</td>
<td>Good</td>
<td>(0.6-0.7) Acceptable (Hassan and Hod, 2017)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.7-0.8) Acceptable for classroom tests (Axelson and Kreiter, 2009; Obon and Rey, 2019)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.6-0.7) Acceptable for short tests (ten or fewer items) (Obon and Rey, 2019)</td>
</tr>
<tr>
<td>Cronbach’s Alpha (α)</td>
<td>0.7440</td>
<td>Acceptable</td>
<td>(≥ 0.7) Acceptable (George and Mallory, 2003; Hair et al., 2010; Nunnally, 1978)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.6-0.7) Acceptable in exploratory research</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Gottems et al., 2018; Hair et al., 2010; Nunnally, 1978)</td>
</tr>
</tbody>
</table>

6. Results

A total of 69 children (39 boys and 30 girls) aged between 6 and 12 and their parents (40 women and 29 men) were chosen from international schools in Alexandria, Egypt. All participants (children and their parents) were Egyptian. The demographic profiles of the children and their parents are shown in Tables 3 & 4.

Table 3 Demographic Characteristics of the Children

<table>
<thead>
<tr>
<th>n=69</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Boy</td>
<td>39</td>
</tr>
<tr>
<td>Girl</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-8</td>
</tr>
<tr>
<td>9-12</td>
</tr>
</tbody>
</table>

Table 4 Demographic Characteristics of the Parents of the Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>25-34</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>35-44</td>
<td>40</td>
<td>58</td>
</tr>
<tr>
<td>45-55</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>56-64</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>65 and above</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>40</td>
<td>58</td>
</tr>
<tr>
<td>Father</td>
<td>29</td>
<td>42</td>
</tr>
<tr>
<td>Educational Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>51</td>
<td>74</td>
</tr>
<tr>
<td>Master’s or Ph.D. Degree</td>
<td>18</td>
<td>26</td>
</tr>
</tbody>
</table>

6.1 Family Travel Behavior

With regard to family travel frequency, more than half of the respondents (54%) travel with their family twice a year, 33% travel once a year, and only 13% travel three or more times a year. The most frequently used mode of transportation for family travel was private cars (52%), followed by buses (48%), trains (38%), planes (29%), and other modes such as cruises which were less common (2%). The majority of the respondents (65%) preferred traveling independently while 35% preferred traveling in large, organized groups.

When asked about the most important factor they consider when planning their family vacations, cost, (42%) was the most common consideration, followed by convenience (33%), then luxury (21%), and eco-friendly (4%) was the least considered factor.

Concerning their children’s influence on the family’s travel choices, more than half of the respondents (65%) consider their children’s opinions when making travel choices, 25% of respondents let their children decide on final travel choices and 10% do not involve their
children in making travel choices at all. Most respondents (94%) research the destination they will visit to learn about the local culture, environment, attractions, and activities. An overview of the respondents’ family travel behavior is summarized in Table 5.

### Table 5 Respondent’s Family Travel Behavior

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Travel Frequency</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Once a year</td>
<td>23</td>
<td>33</td>
</tr>
<tr>
<td>Twice a year</td>
<td>37</td>
<td>54</td>
</tr>
<tr>
<td>Three or more times a year</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Never</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Mode of Transportation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Cars</td>
<td>36</td>
<td>52</td>
</tr>
<tr>
<td>Buses</td>
<td>33</td>
<td>48</td>
</tr>
<tr>
<td>Trains</td>
<td>26</td>
<td>38</td>
</tr>
<tr>
<td>Planes</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Travel Preference</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independently</td>
<td>45</td>
<td>65</td>
</tr>
<tr>
<td>In large, organized groups</td>
<td>24</td>
<td>35</td>
</tr>
<tr>
<td><strong>Travel Choice</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>29</td>
<td>42</td>
</tr>
<tr>
<td>Convenience</td>
<td>23</td>
<td>33</td>
</tr>
<tr>
<td>Luxury</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Eco-Friendly</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Children Influence on Family travel choices</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Say</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Some Say</td>
<td>45</td>
<td>65</td>
</tr>
<tr>
<td>No Say</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td><strong>Destination Research Before Visit</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>65</td>
<td>94</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

#### 6.2 Family Responsible Travel Behavior

First, more than half of the respondents (60%) are familiar with the term ‘responsible travel’. Second, the findings demonstrated that most of the respondents (88%) try to reduce their environmental impact while traveling as 62% don’t throw litter when visiting natural sites or monuments, 57% reduce energy consumption, 35% drive less, walk more whenever possible, 28% avoid single-use plastics and bring reusable items, 20% don’t buy products or souvenirs made from endangered animals or plants, 16% stay in eco-friendly accommodation, and 13% choose eco-friendly transportation such as public transportation, or cycling. Only 12% (n=8) of the respondents do not think about their environmental impacts while traveling.

Third, the findings showed that the majority of the respondents (94%) supported local businesses when traveling by eating at local restaurants (75%), followed by buying local products and souvenirs (65%), staying at locally owned accommodations (52%) or hiring a local guide (33%).

Finally, the findings also revealed that the respondents engage with the local community during their visit in more than one way as follows: visiting museums and historical sites to learn about culture and history (67%), participating in cultural activities such as festivals and markets (60%), respecting religious practices (51%), learning few words to communicate with local people in their language (48%), not taking photos of local people without permission (46%), following dress code of the area (29%), and volunteering with local or charity organizations (15%). Respondents’ responsible travel behavior overview is summarized in Figure 1.

![Figure 1 Family Responsible Travel Behavior](image-url)
6.3 Responsible Travel Quiz Findings

The majority of participants (n=67, 97%) passed the quiz (Figure 2). Most of the participants (n=50, 72%) scored a full mark of (10/10) on the responsible travel quiz. Nine students (13%) scored 9 out of 10, and four students (6%) got 8 marks out of 10. In other words, 91% of participants got either an A+, A, or A- grade which indicates excellent performance. Two participants got 7 out of 10 marks and 1 got 6/10 (i.e., 4% of participants scored either a B+ or B grade which indicates a good performance). One participant (a girl) got 5 marks out of 10 (i.e., a passing grade). Two participants (boys) got 4 and 3 marks out of 10, which indicates their unsatisfactory performance. Participants’ quiz marks breakdown is shown in Figure 3.

Quiz marks distribution according to age categories (6-8 and 9-12 years old) is shown in Figure 4. Most older participants (87%, n=32) demonstrated an excellent performance (A+, A or A-), 8% (n=3) showed a good performance and only two older participants failed in the quiz. Similarly, the majority of younger participants (n=31, 97%) demonstrated an excellent performance and only one young participant got a passing grade (5 marks out of 10). An equal number of boys (25) and girls (25) excelled in the quiz (Figure 5).

The difficulty index (P) of the quiz was 0.8816 which indicates that the quiz is easy (P<70%), however, a p-value between 0.80 and 1.00 is still acceptable if the intent is knowledge mastering not performance discrimination (Ermie, 2017) which is the case in this research as the quiz aims to evaluate the
An Interventional Storybook for Inculcating Responsible Travel Behavior among School-Age Children

Radwa Ali Hamed

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children’s (aged 6 to 12) basic knowledge of responsible travel practices acquired by reading the storybook not discriminating the children’s performance. Moreover, the overall discrimination index (D) was 0.2368 which is a good/acceptable range (Table 6).

Table 6 Overall Difficulty and Discrimination Indexes of Quiz

<table>
<thead>
<tr>
<th>MSQ Quiz</th>
<th>Value</th>
<th>Interpretation</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty index (P)</td>
<td>0.8816</td>
<td>Easy</td>
<td>(≥90) Too Easy ( Sugianto, 2020)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(≥80%) Easy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Kaur et al., 2016; Uddin et al., 2020)</td>
</tr>
<tr>
<td>Discrimination index (D)</td>
<td>0.2368</td>
<td>Good/Acceptable</td>
<td>(0.21–0.24) Acceptable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Elfaki et al., 2015; Uddin et al., 2020)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.20–0.29) Moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Aljehani et al., 2020; Sharma, 2021)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.20–0.29) Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Ramzan et al., 2020)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.20–0.35) Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Bhat and Prasad, 2021)</td>
</tr>
</tbody>
</table>

Most participants correctly answered Q1 and Q2 concerning responsible tourism definition and responsible travel behavior (91% and 93% respectively). Also, 91% of the participants correctly answered Q3 concerning leaving the visited environments intact.

The majority of the participants (97%) answered Q4 correctly. However, its correct answer was ‘a&b’, and having more than one correct answer confused two participants (aged 9 and 10). Similarly, Q5 whose answer was ‘all the above’, most participants (84%) answered it correctly while 11 children (8%) got confused, especially younger children (aged 6-8). This could be attributed to hastily answering the quiz and not reading all possible answers or the fact that younger children are still not acquainted with or haven’t practiced this type of question before.

Both the 6th and 7th questions were concerning respecting host communities, all participants showed an understanding of the importance of respecting local customs and traditions when traveling (Q6). 91% of participants answered Q7 correctly and only six participants thought it was ok to take photos of local people without asking for their permission first.

Most participants (n=60, 87%) answered Q8 concerning exploiting animals while traveling correctly and nine participants (13%) got it wrong. Finally, all children (n=69) answered Q9, and Q10 concerning proper trash disposal, and waste reduction correctly. Responsible travel quiz responses are shown in Figure 6.

Figure 6 Responsible Travel Quiz Responses
6.4 Parents’ Evaluation of Storybook Effectiveness

The majority of the respondents (99%) think that the storybook is an effective way to build knowledge and generate awareness about responsible tourism among children. Most respondents (90%) stated that their children showed interest in the storybook. 88% of the respondents feel that their children now understand the meaning of responsible travel and how to be responsible travelers. 80% of the respondents revealed that their children showed an interest in learning more about responsible travel after reading the storybook. 94% agreed that the storybook glossary provided clear definitions of new terms and 97% found the included lists of Dos and Don'ts were helpful in teaching their children responsible travel behavior.

Generally, most respondents (91%) were either very satisfied (55%) or satisfied (36%) with the storybook in teaching their children about responsible travel practices, and 9% were neutral. Also, 91% of respondents stated that storybook inspires their families to make responsible choices when planning future travels such as choosing destinations that are easily accessible by public transport, staying at eco-friendly accommodation, and participating only in eco-friendly tourist activities such as hiking and birdwatching. Some respondents also stated that they would rent bikes instead of private cars or do more walking than driving. Others said that they would use reusable items and try to reduce waste during their trips.

Regarding the final open-ended question, only ten comments were received. All comments were positive such as ‘My kid liked the story’, ‘We had a rich discussion after reading the storybook’, and ‘My kid and I started planning our next trip and we are eager to be more responsible travelers’. Only one respondent reported that she had to read the storybook with her six-year-old daughter twice to be able to answer the quiz on her own.

7. Discussion and Conclusion

Since tourists' irresponsible behavior is the main cause of the environmental destruction that the Egyptian tourist destination endures. This research main objective was to explore the effectiveness of storybooks read-aloud in inculcating proactive environmental responsibility practices in young generations who are the tourists of the future and can strongly influence their parents’ current travel behavior. Therefore, the study’s interventional storybook targeted both school children (aged 6 to 12) and their parents to induce targeted behavioral changes. To evaluate the effectiveness of the storybook in raising the participants’ awareness of responsible tourism and responsible travel practices, a short self-complete quiz was developed.

All in all, the majority of participants have a good grasp of the definition of responsible tourism and responsible travel behavior as almost all participants (except two) passed the responsible travel quiz. Most participants gave either an excellent or an above-average performance on the quiz.

By now, participants comprehend that responsible travel is all about non-disrupting the visited environments, leaving them intact, and respecting local communities, as the majority of the children demonstrated a good understanding of the phrases ‘Take only photos, leave only footprints when visiting natural sites or monuments’ and ‘It is important to respect local customs and traditions when traveling’. All participants showed an understanding of the importance of
making sound environmental choices on their trips such as waste reduction, and proper trash disposal.

In other words, the results obtained showed that the storybook read aloud was effective in building children’s knowledge of responsible tourism and raising their awareness of responsible travel practices. This finding agrees with the findings of Barracosa et al. (2019) and Hsiao and Shih (2016) who found that stories can contribute to a better understanding of environmental concepts and ecological issues.

The research findings also suggest a positive perception of the storybook among participants and their parents as the majority of respondents revealed that their children were interested in the storybook. The respondents further reported that their children showed interest in learning more about responsible travel after reading the storybook. This research finding is consistent with Kaser (2001) who discussed the ability of stories in increasing children’s knowledge and evoking their curiosity.

Moreover, most respondents reported that the storybook read aloud was an effective way for raising their children’s knowledge and awareness of responsible tourism and that they were satisfied with the storybook as a tool for educating their children on responsible travel practices. This is coherent with the findings of Hadzigeorgiou and Judson (2017) who addressed using storytelling in raising environmental awareness and Rice (2002) who revealed that storybooks can help children gain knowledge and understand the concepts better than textbooks.

As for the respondent’s family travel behavior, on the one hand, it was found that ‘cost’ was the most considered factor when planning family vacations. This finding agrees with the findings of both Martin (2014) and Srnec et al. (2016) who highlighted price as a significant factor in the vacation decision-making process. On the other hand, the ‘eco-friendly’ travel option was the least considered factor by respondents when planning their family vacations. This finding is inconsistent with the latest findings of the Trip.com Group (2022) survey which reported that European and Asian travelers are increasingly adopting sustainable travel recently. Nevertheless, the preceding finding highlights the necessity of raising awareness of responsible tourism and encouraging responsible travel behavior among Egyptian tourists which in turn justifies the importance of the current study.

It was also found that private cars were the most frequently used mode of transport among most respondents. This finding is in line with McCarthy et al. (2017) who reached similar results concerning cars being the most convenient mode of transportation for families with young children and emphasized the significance of encouraging families with children to adopt sustainable travel modes which is in line with the interventional storybook events, which attempted to educate children and their parents on the value of adopting more responsible travel practices such as driving less walking more, using public transportation and flying green.

Furthermore, the majority of the respondents revealed their children’s influence on the family’s travel choices. This finding agrees with the findings of Robin (2010), Srnec et al. (2016), and Tomić et al. (2018) who found that children significantly influence their families’ vacation decision-making process. It is also coherent with Guerrier (2020) and Tomlin (2021) who reported that children aged
6 to 12 have a say in their families’ day trips and vacation decisions.

The findings also suggest a positive perception of responsible tourism among parents, as more than half of the respondents were familiar with the term ‘responsible travel’, and the majority revealed that they try to minimize their environmental impact, engage with the local community, and support local businesses while traveling. Nonetheless, the majority of the respondents expressed a negative attitude towards the eco-friendy travel option as a priority for their travel decisions. This partially agrees with the findings of the latest sustainable travel survey which reported that the majority of its respondents associated sustainable travel with reducing environmental impacts and supporting the local communities’ economies and cultures and that 90% of the respondents look for environmentally friendly options when traveling (Expedia Group, 2022).

Finally, the findings of the study revealed the parents’ positive attitude toward the storybook as an effective tool in encouraging future adoption of more accountable travel choices as most respondents indicated that the storybook inspires them to make more responsible choices when planning future family travels. This finding is consistent with Aurélio et al. (2021) who found that storybooks can be valuable tools for promoting environmentally responsible behaviors.

Accordingly, the research question is answered as all the previous findings suggest that using storybooks can be helpful in instilling environmentally and socially responsible travel behaviors in today’s children (i.e., future tourists) who can influence their families’ current travel behaviors which is coherent with Medress (2008) who stated that storybooks have the potential to inculcate long-lasting environmental values in children that continue to exist in their adulthood and Hosany et al. (2022) who recognized education as indispensable for developing children’s sustainable behavior and highlighted the role of children in influencing their families’ current sustainable behaviors and as future responsible adults.

7.1 Limitations and Future Directions

The study at hand explored the idea of using a storybook narrative as a tool for raising awareness of responsible tourism and inculcating responsible travel behavior in middle childhood. As such the findings of this research study contribute to the scarce literature about the use of narratives in the tourism context.

Though the findings of this exploratory research showed that using the narrative in educating children about responsible travel behavior was valued by participants. The findings of this case study are limited to the context of the current study and cannot be generalized. In other words, the purpose of the research at hand was to get initial insights into the impact of the narrative in question on children’s understanding of responsible tourism, not reach generalizations. Yet, the research findings could be applicable in similar settings.

Also, another research limitation is that the implementation of the research activities was done in the home environment with the help of the participants’ parents at their convenience, hence the researcher did not have access to direct observation. Accordingly, further examination is still needed to investigate storybooks read aloud potential for raising the awareness of the wider population of Egyptian school children. Therefore, it is recommended
that future research should be conducted with a larger sample size to produce generalizable results, and this requires the collaboration of several school administrations and the active participation of their English and science teachers.

Furthermore, future research could attempt to develop an interactive storybook with different environmental themes that hold children accountable for their environmental behaviors and evaluate its effectiveness in motivating children into becoming more responsible travelers. Children can create storybook events on their own by choosing their environmental actions and acknowledging their consequences.

7.2 Managerial Recommendations

The Egyptian Ministry of Tourism in collaboration with education and environmental authorities should adopt the idea of producing a series of narratives that aim at raising school students’ awareness of global issues in the context of tourism such as sustainability, heritage conservation, climate change … etc, to be taught for a lengthier period during the course of the school year to be able to raise awareness of the wider population of Egyptian children. This requires the following:

- Recruiting authors, publishers, and illustrators to create storybooks that specifically address values and responsible behavior related to tourism. This collaboration ensures that the taught content is accurate, entertaining, and in line with educational objectives.
- Incorporating local culture and traditions in the created storybooks to foster a sense of pride and appreciation among Egyptian children for their own heritage. This can be accomplished by including local landmarks, festivals, or traditional practices within the storyline.
- Ensuring that the storylines emphasize the importance of environmental conservation in tourism activities. The created storybooks should educate children about the impact of their actions on the environment while promoting responsible behavior such as waste reduction or wildlife protection.
- Introducing characters within storybooks who exemplify responsible behavior during tourism experiences. These characters can serve as positive role models for children by demonstrating respect for local customs, wildlife conservation efforts, and sustainable travel practices.
- Developing interactive storybook experiences that encourage active participation from children through games or puzzles related to responsible tourism behavior. This approach enhances engagement while reinforcing key concepts.
- Implementing teacher training programs that equip educators with the needed knowledge and skills to effectively use storybooks as educational tools. These programs should focus on integrating values and responsible behavior lessons into existing curricula.
- Forging partnerships with tourism industry stakeholders, such as hotels, travel agencies, or tourist attractions, to distribute storybooks to children visiting these establishments. This collaboration can help reinforce responsible behavior messages during their tourism experiences.
To sum up, using storybooks as a means to instill environmental values and inculcate responsible behavior in Egyptian children is a valuable strategy for tourism, education, and environmental authorities. By collaborating with various stakeholders and incorporating local culture and environmental conservation themes, these authorities all together can effectively shape the future generation of Egyptian responsible tourists.

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**Appendix**

For Appendix A, scan the QR code below.