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# Education for sustainable development in Malaysia: A study of teacher and student awareness

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## Abstract

Sustainable development is seen as a modern development idea that is most proactive and practical in addressing the issues of development demand and environmental conservation. This paper examined two variables influencing teachers' and students' awareness of education for sustainable development (ESD), namely, school location and school participation in the Sustainable School Environmental Award (SLAAS) Programme. Primary data were gathered from 447 students and 245 teachers of six secondary schools in urban areas and six secondary schools in rural areas which participated in the SLAAS Programme. Results of the statistical analysis revealed a difference in terms of content knowledge, attitude and behaviour between students in rural and urban areas and no difference for the teachers. This meant that the application of ESD as the outcome of SLAAS Programme between urban and rural students is different according to the ESD awareness variable, but not so for urban and rural teachers. Findings also revealed differences with respect to knowledge practice and behaviour for students and teachers according to school participation in the SLAAS where a significant relationship existed for schools that participated in the SLAAS at the national level. These findings might be useful in informing further effort to enhance ESD awareness of the school community particularly through sustainability activities.

**Keywords**: awareness, education for sustainable development (ESD), environmental education, school location, school participation in ESD, sustainable school programs

## Introduction

The demand of current development has caused problems of pollution and deterioration of the quality of environment, either at the international or at the national level. Discussions at the global level have decided on the most ideal approach to inculcate awareness on environmental care for a long term, which is through sustainable development approach (World Commission on Environment and Development – WCED, 1987). In essence, through the concept of sustainable development, the development should meet the needs of the current world's population without compromising the needs of the world's population in the future.

Sustainable development is seen as a modern development idea that is most proactive and practical to address the issues of development demand and environmental conservation (Fien, 1997; Hopkins & McKeown, 2002; Huckle, 2009; Joshi, 2009; Moroye, 2005; Sterling, 2003; Scoullos & Malotidi, 2004). Communities throughout the world have begun to worry about the issue of exploitation of the environment, economic development and the deterioration of the quality of life. In fact, development activities and environmental neglect are also threatening the future generations. Therefore, there is no doubt that the situation is very serious and affects the survival and sustainability of civilization and

prosperity (Laily, 2009). In this context, Malaysia also gives priority towards sustainable development through, for example, the Local Agenda 21 in 2001, which was entrusted to the Ministry of Housing and Local Government. The steps taken by Malaysia are in tandem with the opinion of the researchers (Henderson & Tilbury, 2004; Hopkins, 2013; Gough, 2005), which stressed that the theory and practice of education for sustainable development require the participation of the school community in terms of its practice and implementation.

Efforts to inculcate awareness on sustainable development is not only one sided, but all communities should be given exposures to the concept of sustainable development. The element of education for sustainable development was first officially recognized through the Earth Summit Conference in Rio de Janeiro in 1992 which formed Agenda 21. Each chapter in Agenda 21 emphasises on education, but Chapter 36 Agenda 21 gives specific emphasis on education, namely, (i) improving basic education, (ii) adaptation of existing education towards sustainable development, (iii) improving the understanding and awareness of the community, and (4) training (United Nations, 1992). Lampa, Greculescu, and Todorescu, (2013) agreed that education is the key towards achieving the goal of sustainable development, as education for sustainable development (ESD) appeared during the World Conservation Union (IUCN) with the slogan "education for sustainable living" (Fien & Tilbury, 2002).

Educational approach is the important method in changing the society towards betterment and become an important platform to achieve sustainable development (Doost, Sanusi, Fariddudin, & Jegatesan, 2011; Fielding & Head, 2012; Foo, 2013; Hanifah et al., 2014; Hazura, 2009). Therefore, the main driver of the education for sustainable development is teachers/educators, who are seen as effective change agents (Gough, 2005; Habibah & Punitha, 2012; Liu, 2009). Education for sustainable development is one of the best methods to channel information at the school level towards environmental awareness, hence the present generation will appreciate more about the environment preserves for future generations. Through education, changes in values and attitudes, skills and behaviours can be achieved, particularly through widespread and deep understanding of the issues on sustainable development (Bernardino, 2000). In actual fact, teachers at preschools should start introducing the first step to understand the concept of sustainability to children (Aini & Laily, 2010). It can be concluded that a full commitment from all level of society is essential because education for sustainable development is a disciplined learning strategy that emphasises on value, thinking, methodology and structured policy making decision in line with the world's changes (Lampa et al., 2013). On this note, therefore, this article aims to identify the relevance of each variable for awareness on education for sustainable development according to the locations and level of participations among students and teachers through the SLAAS Programme implemented.

## Education for Sustainable Development In Malaysia (ESD)

Education for sustainable development is a multidisciplinary area of knowledge (Koester, Eflin, Vann, 2006; UNESCO, 2009). The history of education for sustainable development began through international conferences of political and economic forums rather than driven by the education community. Thus, the idea of the ESD concept is quite difficult to be translated by educators' bodies internationally such as UNESCO and academia itself (Fien Tilbury, 2002). It was found that various terms have been used and these include "sustainability education", "education for sustainable development" and "education for sustainability". However, according to Burns (2009), although the terms are used alternately, they reflect the same goal. ESD is the term/terminology that is recognized at the international level (UNESCO, 1998), and the term also refers to the overall educational goals including increasing the access to basic education, education for sustainable development orientation, increasing public awareness and understanding for all the sectors in the community (Burns, 2009).

The United Nations (UN) has declared 2005-2014 as the Decade of Education for Sustainable Development (DEfSD) with the aim of integrating the principles, values and practices of sustainable development into all aspects of education and learning. Education will encourage changes in behaviour to

shape a more sustainable future in terms of environmental integrity, economic and fair society for present and future generations (UNESCO, 2002). Through education, changes in values and attitudes, skills and behaviour will be achieved, particularly through widespread and deep understanding of the issues of sustainable development (Bernardino, 2000; Scott, 2013). The implementation process of the education for sustainable development depends on a country's needs and the needs of the local people (UNESCO, 2007).

Most of the countries in the world have implemented education for sustainable development through sustainable school programmes such as Australia-Sustainable School (AuSSI), New Zealand - Enviroschools, Sweden - School Award, China - Green School Project, United Kingdom - Eco School (ARIES, 2004) and Greek - Sustainable School Award (Kalaitzidis, 2012). Countries in the ASEAN region are also implementing sustainable school programmes to inculcate ESD awareness through educational channel, which include Singapore - Singapore Green Audit School Award, Indonesia –Eco School (Adiwiyata), Cambodia - Sala Kuma Metrei (Child-Friendly Schools), Laos - Honghiane Khunnapkap (School of Quality), Vietnam - Green, Clean and Beautiful School; Thailand - Eco-Schools and the Philippines – Sustainable and Eco Friendly School (Shaharudin, Abdul Samad, & Ahmad Faiz, 2010). Malaysia is no exception by placing education for sustainable development through Sustainable School.

In Malaysia, the implementation of sustainable school is a planned and structured programme designed to promote sustainability among students. The programme, so called Sustainable School Environment Award (SLAAS), has been implemented since 2005 and is open to primary, as well as secondary schools (not made compulsory by the Ministry of Education). Three parties who monitor the implementation of this programme are (i) the Curriculum Division, Ministry of Education; (ii) the Department of Environment, Ministry of Natural Resources and Environment, and (iii) the Institute of Environment and Development (LESTARI), Universiti Kebangsaan Malaysia. The monitoring is based on the measurable indicators that are established in the early stages (Table 1).

**Table 1. SLAAS evaluation measurable indicator**

| COMPONENT | MEASURABLE INDICATOR (MI) |
|---|---|
| MANAGEMENT | • Sustainable School Mission<br>• Sustainable School Organization<br>• Strategy and Action Plan Implementation<br>• Monitoring System<br>• Reporting System |
| CO-CURRICULUM | • Activities and Greening Project by Club & Association Other Than Club/Environment Association<br>• Awareness Project<br>• Development of Environmental Information<br>• Network<br>• Capacity Development<br>• Reporting System |
| GREENING | • Strategy and Action Plan for Greening<br>• Garden Management System<br>• Garden Design<br>• Implementation Process of Greening<br>• Resource Management to Improve Efficiency and Conservation<br>• Strengthening Attitude of the Teacher, Student and School Staff towards Preservation and Conservation<br>• Usage of Product and Green Technology |

*Source*: Department of Environment, Ministry of Education & Institute of Environment and Development (LESTARI, 2007)

The purpose of SLAAS is to create a school environment that fosters the conservation and preservation of the environment in the aspects of management, curriculum, co-curriculum and continuous green activities in order to establish a life practice in line with the concept of sustainable development. Environmental approach is chosen because through this approach, we can learn to understand human interaction with the environment and how the environment is managed wisely and responsibly towards the sustainability of life on earth. This process involves education about the environment, through the environment and for environment (Doe et al., 2012). The basic idea of sustainable school as discussed by Huckle (2010) and Papadimitriou (2010), which are by integrating sustainability in every aspect of life in the school setting, which involves the administration, learning process, building management, transport mode to school, and the school's relationship with the community through the implementation of SLAAS, have been implemented in Malaysia.

The SLAAS Programme has been implemented in the form of competition, and at the end of each session (2 years for each session), there will be winners in the categories of primary and secondary schools. There is a screening to select the winner for the SLAAS Award, which is screening for the SLAAS participation level, state level and national level (Figure 1). To date, Sustainable School programme has experienced 4 sessions; session 1 (2005/2006), session 2 (2007/2008), session 3 (2009/2010) and session 4 (2011/2012). There is an increasing trend in school participations for each session (Table 2).

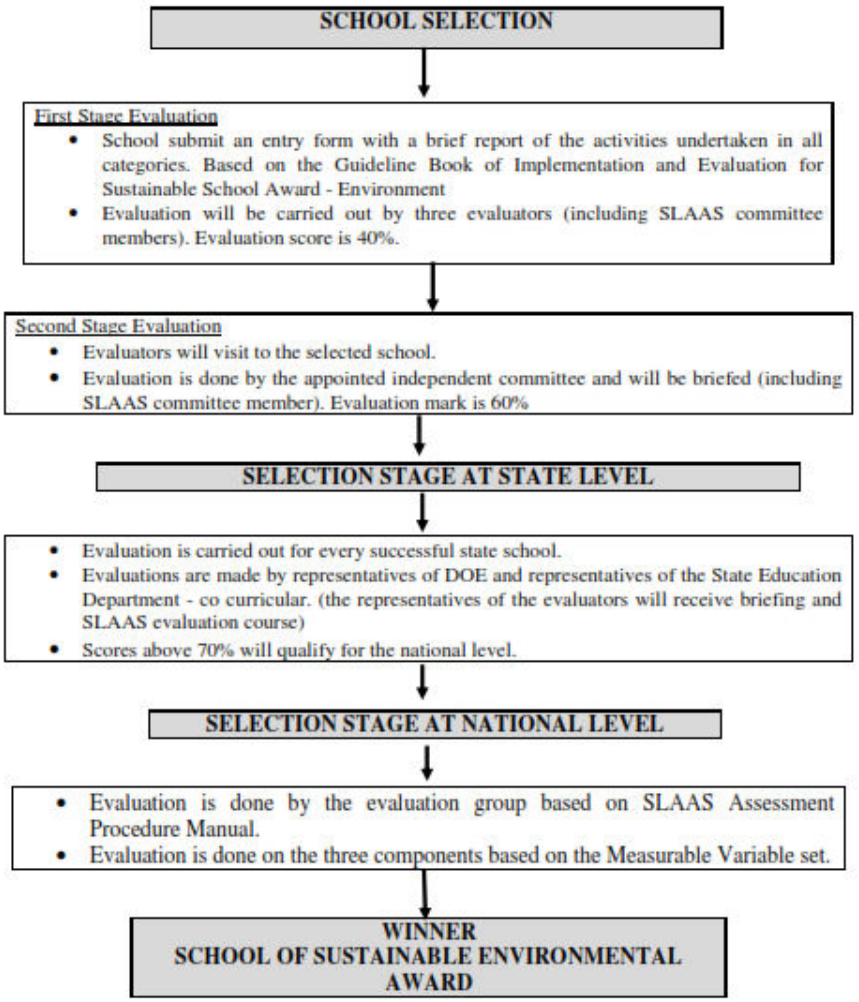


**Figure 1.** *SLAAS winner evaluation process*

**Table 2. Number of Participating Schools Throughout Malaysia in SLAAS**

| Session | Entry (Primary and Secondary) |
|---|---|
| Session 1 (2005/2006) | 67 |
| Session 2 (2007/2008) | 72 |
| Session 3 (2009/2010) | 115 |

Source: Kamariah, 2011.

There has not been wide and satisfactory research on education for sustainable development programme in Malaysia, especially in the school system. However, there are several studies, for example by Norazizah (2008), which give a greater focus on sustainable activities to review the understanding and awareness on sustainable development education among secondary school students through hands-on activities. In the earlier part of the research, sustainable activities were conducted through the exposure of Science subjects. After giving the exposure, comprehension tests were carried out in the form of subjective questions to observe the extent to which sustainable activities provided were able to increase the understanding and awareness. The result indicated that the students understand the meaning of education for sustainable development after going through the activities conducted. In addition, Thoe (2007) reviewed on the teaching of sustainable development in schools and as a result, he had proposed some strategies that can be used in teaching Science, particularly by applying the principles of sustainable development.

Environmental awareness issues in the context of sustainable development among 340 form 4 and 5 students were examined by Suriati (2009). The awareness components of the study are knowledge, skills, values and participations. The result showed that the high school students have a high level of environmental awareness in the concept of sustainable development. The level of awareness of female was higher compared to that of male students. In addition, the level of awareness of science students was higher than professional arts students, and the level of awareness of urban school students was higher than the rural school students. Pearson's correlation analysis explains that there is a significantly weak relationship between the level of environmental awareness in the concept of sustainable development with practices, attitudes and good values related to sustainability.

Nevertheless, studies by Mumtazah and Norhafidah (2009) on 1524 form four students throughout Malaysia found that 67.7% of the respondents did not have knowledge about sustainable consumption. Respondents' awareness related to sustainable use was at a medium level. Respondents only practiced electric and water saving and occasionally segregated boxes or tin after use. Respondents also seldom collected and recycled leftovers. In addition, a study carried out by Saravanan, Rosta Harun, Ahmad Makmom (2013) on 354 form four students in Kluang district, Johor to identify sustainable consumption practices found that the level of sustainable consumption practices was moderate ($M = 41.69$ and $SD = 7.03$). Their study also found that there was no significant difference ($t = -1.27$, $p > 0.05$) among students in rural and urban areas in terms of the level of sustainable consumption practices.

Sustainable development education with a variety of approaches is able to raise the general awareness of students and teachers not only in the school environment, but also in a wider range, i.e. outside school. In fact, through adequate training and guidelines given by trainee teachers and policy makers to introduce more innovative and effective teaching strategies, education for sustainable development can be achieved in schools to ensure the sustainability of the population and meet various principles set out for sustainable development according to the Brundtland Commission (Fien 1997).

## Methodology

The population of the study consisted of teachers and secondary school students throughout the country who had participated in the SLAAS Programme. A total of 69 secondary schools throughout the country involved in the 3rd. session of the SLAAS Programme (2009/2010) was identified from the Department

of Environment, Ministry of Natural Resources and Environment. Of the 69 schools, the researcher used cluster sampling technique, i.e. choosing school samples in all the three categories of participation (Sustainable school participatory level, state level and national level). In each category of participation, 4 schools were selected. Each represents two urban schools and two rural schools. This means that the number of schools involved was 12 SLAAS schools. Meanwhile, the total sample of students and teachers in 12 SLAAS schools was 447 students and 245 teachers.

This study used t-test to observe the effect of each ESD awareness variables by school location; urban and rural. Variables for education awareness for sustainable development in this study consisted of knowledge on SLAAS Programme, knowledge on the content of sustainable development, knowledge of educational practices on sustainable development, attitude of education for sustainable development, and behaviour of education for sustainable development. In addition, ANOVA test was used to observe different effect of each variable for the sustainable development education awareness based on the three levels of SLAAS Programme participation, i.e. participatory level, as well as both state and national levels for students and also teachers.

## Findings and discussion

Table 3 shows the difference in the variables of sustainable development education awareness of urban and rural students. The study found that there was a difference on the knowledge of SLAAS Programme between urban and rural students for the content knowledge of education for sustainable development ($t = -4.30^*$, $p < 0.05$), attitude of sustainable development education ($t = -2.197^*$, $p < 0.05$) and behaviour of education for sustainable development ($t = 2.461^*$, $p < 0.05$) variables. Furthermore, SLAAS knowledge ($t = -1.912$, $p > 0.05$) and knowledge of sustainable development education practices ($t = 1.645$, $p > 0.05$) variables show no difference between students in urban and rural areas. This proves that the variables of knowledge content of education for sustainable development, attitude of education for sustainable development and behaviour of students who attended SLAAS programme in rural and urban areas are different. These differences explain that the acceptance of education for sustainable development information in forming their knowledge, attitudes and behaviour were not fully appreciated for a group of urban and rural students in this study. The finding of this study is in line with the study by Suriati (2009); Zelezny, Chua and Aldrich (2000) and Vorkinn d Riese (2001), in which there is a significant difference in terms of residential place in influencing the attitudes, values and behaviours in the context of sustainable development. Arcury and Christanson (1990) in their preliminary study also view those living in metropolitan areas are significantly more environmentally friendly than those living in rural areas.

**Table 3. Comparison of awareness on education for sustainable development between urban and rural students**

| Variable | School Location | N | Mean | SD | df | t | *p-value* |
|---|---|---|---|---|---|---|---|
| SLAAS Program Knowledge | Urban | 266 | 15.93 | 3.89 | 445 | -1.912 | .057 |
| | Rural | 181 | 16.60 | 3.25 | | | |
| ESD Content Knowledge | Urban | 266 | 32.53 | 5.77 | 445 | -4.320* | .000 |
| | Rural | 181 | 34.67 | 4.02 | | | |
| ESD Knowledge Practice | Urban | 266 | 24.08 | 5.56 | 445 | 1.645 | .101 |
| | Rural | 180 | 23.28 | 4.20 | | | |
| | Urban | 266 | 84.81 | 8.17 | 445 | -2.197* | .029 |
| ESD Atitude | Rural | 181 | 86.46 | 7.19 | | | |
| ESD Behaviour | Urban | 266 | 50.95 | 8.92 | 445 | 2.461* | .014 |
| | Rural | 181 | 48.96 | 7.55 | | | |

Indicator: * significant at $p<0.05$

Likewise, the study Corral-verdugo (2001) shows that the environmentally friendly attitudes and behaviours are positive among respondents in urban areas compared to the attitudes and behaviors of environmentally friendly respondents living in rural areas. Based on the model of Responsible Environmental Behaviour (Hines et al., 1986/87), there are three factors i.e. personnel, cognitive and situation factors will help in changing people's behaviour towards environment. This explain that the changes of awareness on education for sustainable development are needed for all level of society regardless their status or localities in order to achieve sustainability.

Table 4 shows the variables in the difference of awareness of urban and rural teachers. The study found that there was no significant difference for all of the variables of education for sustainable development (knowledge of SLAAS Programme, knowledge content, knowledge practice, attitudes and behaviours) among the teachers in the schools participating in the SLAAS Programme. This explains that the awareness of the teachers on the education for sustainable development is not influenced by the location of the school. This finding explains that accessibility to the education for sustainable development awareness through SLAAS Programme for urban and rural teachers is similar. Exposure and information resources were not different in terms of location. Being an educator, the availability of knowledge, particularly in the education for sustainable development, is necessary to shape the behaviour of education for sustainable development. In fact, the behaviour of teachers is the reflection to the students. Studies by Kennedy, Beckley, Mcfarlane and Nadeau, (2009) and Jakayinfa and Yusof (2004) explain the indifference of teachers' environmental awareness due to the education factor. This coincides with the view of Arba'at and Mohd Zaid (2011) where there is no difference in teachers' attitudes and knowledge of environmental education by location due to the acceptance of the same environmental knowledge in higher learning institutions among these teachers. Nonetheless, the location of schools in implementing education for sustainable development is very important due to the fact that it influences by the school administration, teachers and local communities (Scott, 2013).

**Table 4. Comparison of awareness on education for sustainable development between urban and rural teachers**

| Variable | School Location | N | Mean | SD | df | t | *p-value* |
|---|---|---|---|---|---|---|---|
| SLAAS Program Knowledge | Urban | 121 | 17.96 | 3.26 | 243 | .456 | .648 |
| | Rural | 124 | 17.79 | 2.78 | | | |
| ESD Content Knowledge | Urban | 121 | 35.43 | 4.84 | 243 | 1.531 | .127 |
| | Rural | 124 | 34.43 | 5.38 | | | |
| ESD Knowledge Practice | Urban | 124 | 8.82 | 2.05 | | | |
| | Rural | 121 | 24.96 | 5.21 | 243 | 1.794 | .074 |
| ESD Atitude | Urban | 124 | 23.77 | 5.19 | | | |
| | Rural | 121 | 85.81 | 8.44 | 243 | -.426 | .670 |
| ESD Behaviour | Urban | 124 | 86.30 | 9.44 | | | |
| | Rural | 121 | 54.31 | 8.64 | 243 | -.227 | .820 |
| | Urban | 124 | 54.54 | 6.86 | | | |

Indicator:* significant at p<0.05

Next, this study also attempts to observe each awareness variable of education for sustainable development according to the three levels of SLAAS Programme participation, i.e. participatory level, state level and national level (Table 5). The study found that there was no significant difference in the SLAAS Programme knowledge ($F = 2.005$ with $p > 0.05$), content knowledge of education for sustainable development ($F = 1.525$ with $p > 0.05$) and students' behaviour towards education for sustainable development ($F = 1.525$ with $p > 0.05$) for students at the participatory level, state level, and national level. Meanwhile, the practice knowledge of education for sustainable development ($F = 3.783$ with $p < 0.05$) and behaviour of education for sustainable development ($F = 6.851$ $p < 0.05$) variables show that there were significant differences. However, based on the mean value, it clearly shows that students at

the national level have higher mean value for knowledge of SLAAS Programme, education attitudes of education for sustainable development and knowledge practices of education for sustainable development. In summary, the mastery and involvement of the SLAAS Programme are better for students at the national level than at the participatory and state level. Exposures and involvements in various on-going SLAAS activities allow awareness on education for sustainable development being dominated by the students.

**Table 5. Differences of awareness on education for sustainable development by school levels for students**

| Variable | Cause of Variation | SS | df | MS | F | *p-value* |
|---|---|---|---|---|---|---|
| Knowledge on SLAAS Programme | Between Groups | 53.401 | 2 | 26.701 | 2.005 | .136 |
| | In Groups | 5912.250 | 444 | 13.316 | | |
| | Total | 5965.651 | 446 | | | |
| ESD Content Knowledge | Between Groups | 83.640 | 2 | 41.820 | 1.525 | .219 |
| | In Groups | 12175.679 | 444 | 27.423 | | |
| | Total | 12259.320 | 446 | | | |
| ESD Practice knowledge | Between Groups | 191.924 | 2 | 95.962 | 3.783* | .024 |
| | In Groups | 11238.884 | 443 | 25.370 | | |
| | Total | 11430.807 | 445 | | | |
| ESD Attitude | Between Groups | 56.612 | 2 | 28.306 | .461 | .631 |
| | In Groups | 27279.070 | 444 | 61.439 | | |
| | Total | 27335.682 | 446 | | | |
| ESD Behaviour | Between Groups | 952.287 | 2 | 476.143 | 6.851* | .001 |
| | In Groups | 30859.369 | 444 | 69.503 | | |
| | Total | 31811.655 | 446 | | | |

Indicator:* significant at p<0.05

Table 6 shows the differences in the awareness on education for sustainable development in schools for teachers. It was found that all the variables of the awareness on education for sustainable development show no significant difference by levels. However, based on the mean value for SLAAS Programme knowledge variables, knowledge on the educational content of SLAAS Programme for sustainable development, knowledge on the educational practices for sustainable development and teachers'

**Table 6. Differences of awareness on education for sustainable development by school levels for a teachers**

| Variable | Cause of Variation | SS | df | MS | F | *p-value* |
|---|---|---|---|---|---|---|
| SLAAS Program Knowledge | Between Groups | 177.552 | 2 | 88.776 | 10.466* | .000 |
| | In Groups | 2052.775 | 242 | 8.483 | | |
| | Total | 2230.327 | 244 | | | |
| ESD Content Knowledge | Between Groups | 258.595 | 2 | 129.298 | 5.062* | .007 |
| | In Groups | 6181.225 | 242 | 25.542 | | |
| | Total | 6439.820 | 244 | | | |
| ESD Practice Knowledge | Between Groups | 849.761 | 2 | 424.881 | 17.682* | .000 |
| | In Groups | 5814.908 | 242 | 24.029 | | |
| | Total | 6664.669 | 244 | | | |
| ESD Attitude | Between Groups | 477.825 | 2 | 238.912 | 3.031* | .049 |
| | In Groups | 19075.131 | 242 | 78.823 | | |
| | Total | 19552.955 | 244 | | | |
| ESD Behaviour | Between Groups | 731.884 | 2 | 365.942 | 6.310* | .002 |
| | In Groups | 14034.116 | 242 | 57.992 | | |
| | Total | 14766.000 | 244 | | | |

Indicator:* significant at p<0.05

behaviour at the SLAAS national level are higher than at the participatory level and at state level. This clearly proves that SLAAS Programme that is continued until the SLAAS assessment at the national level has given a positive impact.

Based on the analysis of the variables for education for sustainable development according to the level of participation, it clearly demonstrates that the mastery and involvement of the SLAAS Programme is better for students and teachers at the national level compared to the students and teachers at the participatory level and state level. This shows that the exposure and involvement in various ongoing SLAAS activities allow the awareness on the education for sustainable development be mastered by students and teachers. Thus, the results of this study are in line with the studies that have been carried out by previous researchers such as Rickinson (2001), Dettman-Easler and Pease (1999), Mittelstaedt, Sanker and Vander Veer (1999). They stated that environmental education interventions such as field studies and school-based programmes can affect environmental knowledge or attitude. Even Kruse and Card (2004) are of the opinion that those who are exposed in the environment course or camp on an ongoing basis will give a positive impact on their behaviours. Similarly, a study by Hazura (2009) emphasizes that the changes in attitudes and behaviours after an environmental educational intervention requires a continuous period of time. This means that ESD interventions through the SLAAS Programme at the national level give more positive impact in the context of participation, responsibility and environmental care that ultimately make up the educational awareness on sustainable development.

## Conclusions

In the efforts by various parties to improve the quality of the environment, direct educational aspect is the most effective approach. Implementation of a structured and continuous approach will enable the long-term awareness on the environmental preservation to be more understandable. SLAAS Programme is a type of programme that has a structured planning and monitored by three responsible bodies in charge, i.e. Ministry of Education, Department of Environment and LESTARI, UKM. Thus, most of the activities in the programme give a direct and continuous impact for a school participating in the SLAAS Programme until the end of its evaluation. Schools in the early stages and state level were found to have lower awareness to continue the activities on education for sustainable development. This study proves that involvement in ongoing SLAAS activities raises awareness of students and teachers.

Thus, the effort of the government to implement the SLAAS Programme should be continued. School community, especially teachers and students nationwide who implement sustainable school education, can plan diverse activities of sustainable development that can create a direct awareness on education for sustainable development. In fact, teachers play an important role as agents of change and have a significant influence on students through all their actions and behaviours. The implementation of education for sustainable development in the form of competition is a form of encouragement for school community to continue the activities on education for sustainable development. Although the school does not participate until the national level, early exposure is a good step towards environmental preservation. SLAAS competition can be implemented as an added value to encourage the school community to be more creative and not an effort that becomes a burden to the school community.

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