Available online at https://journal.uny.ac.id/index.php/ijhress
International Journal Humanitarian Responsibilities, Education & Sport Sciences (IJHRESS)
Vol 1 (1), 2020, 7-11

STUDENTS AND TEACHERS PERSPECTIVE ON SELF-RISK MANAGEMENT IN OUTDOOR CLASSROOM

Alvin Raj Santhanadass[1*], Gunathevan Elumalai[1], Yudik Prasetyo[2], Jaffry Bin Zakaria[1]
[1]Faculty of Sports Science and Coaching, Universiti Pendidikan Sultan Idris. Malaysia.
[2]Faculty of Sports Science, Universitas Negeri Yogyakarta, Indonesia.
[*]e-mail: alvin_rajj@yahoo.com

Abstract: This study is carried out to identify students' and teachers' perception towards self-risk management in outdoor learning classroom. This survey was conducted among 330 subjects (165 students and 165 teachers) who were randomly selected from schools in Penampang district, Sabah. The students' self-risk management questionnaire was created by the researchers and used as instrument with validity r = .80 Meanwhile, the reliability r = .78. was obtained after the pilot study. Findings from the study showed, there were negative perception on students' confidence level towards teachers when there were injuries and first aid was provided. Students also gave negative response; they claimed that teachers fail to identify type of injuries that occurred among students when doing activities outside the classroom. Students were also uncertain of teachers' abilities and expertise in performing first aid treatment to students when injuries occur. The students also not confident with the equipment used in carrying out activities outside the classroom. However, there are positive responses from teachers and students in identifying risky places and avoiding learning activities outside the classroom. Students also exhibit positive response for explanation of safety measures needed by teachers before carrying out activities outside the classroom. This study shows that students' self-risk management can encourage their involvement in outdoor learning activities efficiently. The teachers can also improve themselves especially in first aid knowledge and preparation of teaching aids and equipment for outdoor learning purpose.

Keywords: Validity, Reliability, Self-Risk Management and Standard Operating Procedure

INTRODUCTION

According to Social Security Organization - SOCSO (2018), student's safety is a concern due to the increasing number of accidents occurring in schools each year, especially in outdoor learning activities. There are 118 cases reported throughout 2018, cases which includes deaths by drowning. Furthermore, injuries such as fracture, dislocation, sprain, and swelling on parts of the body constitutes 41,872 accidents cases. This does not include the 372 cases related to weather impacts which are reported. These figures show the effects of not having a Standard Operating Procedure (SOP) that is really focused on students to manage and teach in order to prevent danger and the way to help one's self when there is any injury, in order to save lives.

The Department of Occupational Safety and Health (DOSH) introduced Safe Schools in 2002 and the OSH program 'In School', however this program was ceased due to the lack of funds. It shows that problems of students' risk management in managing injuries does not have a solution. However, the accident theory by Petersen (1982), shows that if the students themselves are taught how to handle injuries and ways to identify risks at the place of activities, then accidents or risks of injury can be avoided. This is supported by Boyes, Potter, Andkjaer, & Lindner, (2018); Carty (2015); Gstaettner, Lee & Rodger (2018); Martínková, & Parry, (2017).

Based on these views, it can be inferenced that students' risk management is important in learning activities outside the classroom to handle risks of injuries and accidents during the activities. Therefore, a study needs to be carried out to survey the perception and understanding of students and teachers who conduct learning activities outside the classroom in the context of self-risk management during outdoor learning activities. The aim of this study is to identify the perception and understanding of students and teachers' perception in self-risk management during learning activities outside the classroom. The second aim is to observe if students are able to

identify upcoming risks and accidents that can occur during outdoor activities as well as student's confidence towards the teachers' ability and skills.

METHODS

This descriptive survey explores the perception of students and teachers in risk management while learning activities outside the classroom. 330 respondents (*n*=165 students, *n*=165 teachers) were chosen randomly from 4 secondary schools in Penampang district based on the subject size table released by Krejcie and Morgan (1970), to avoid sampling error. The study instrument created by the researchers based on the theoretical concepts presented by Petersen (1982), Domino's theory (1941), Ferrel theory (1977), Swiss cheese model (1990) and Dynamic Accidents model by Alan Hale (1984) and Outside Education questionnaire by Santhnadass (2015). The questionnaire consists of 2 parts, 1 part containing subject involvement information and the second part containing items to measure subject's perception of students' self-risk management. This study utilizes the 5-point Likert scale which helps in testing and providing options for subjects to choose the ideal answer and to give consistent input. Compared to the 3 point and 4-point Likert scale, it is more efficient to be used to evaluate subjects' response for each of the items presented to them. The 5-point Likert scale is among the accepted scale to test items in a questionnaire, Linacre (2002), also supports that the 5-point Likert scale can test the questioned items effectively.

The students' self-risk management questionnaire has been tested via previous pilot test before it is used in the actual study. The questionnaire is referred to 4 content experts and language expert from the Malaysian National Co-curriculum Centre panel trainer and the Malay language 'outstanding teacher' (*Guru Cemerlang Bahasa Melayu*). This is to ensure that each of the items can test what needs to be tested and the language used is suitable with the subjects' level as suggested by Baumgatner & Chung (2001). Outcomes from the reliability test shows an alpha value of $r = 0.78$ in total and correlation value between items is more than 0.04. Therefore, each item created is valid and reliable to be used for the study. Frequency statistical analysis and *t*-test used to obtain percentage, mean, and standard deviation to analyse the differences in items between the answers of students and teachers.

RESEARCH ANALYSIS

Table 1, shows feedbacks from students who were satisfied with the items asked. Items question 1 (62%), 2 (62%), 5 (66%), 6 (66%), 7 (70%) and 18 (65%) display the percentage value of moderately satisfied level. This indicates that safety measures taken by the teachers to avoid injury. Teachers were careful and committed to ensure students were in a safe and controlled situation that was not risky; teachers also corrected and advised students when they carried out activities using wrong techniques.

Table 1. Positive Risk Management Response of Student's Group

No	Item	Mean	M(*SD*)	Percentage %
1	The teacher explains the safety measures before activities are carried out	4.24	.726	62.0
2	Teachers explaining the risks of not adhering to the safety measures when activities are carried out	4.18	.796	62.0
3	Understanding the treatment given by the teachers when an injury occurs on oneself	3.75	.880	79.0
4	Teachers explain the steps for first aid that needs to be done if injuries occur	4.03	.834	72.0
5	The teacher gives attention when one carries out the activities	3.98	.931	66.0
6	The teacher advices and corrects when one carries out the activity wrongly	4.05	.946	66.0
7	The teacher tests the activity's equipment first before giving it to students	3.89	.908	70.0
8	One feels safe with the equipment given by the teacher for activities	3.53	.758	90.0
9	The teacher is certified to help if injuries occur	3.80	.932	76.0
14	The teacher explains the possible injuries which can occur during the activity if student fails to adhere to the teacher's instructions or rules	3.89	.098	77.0
15	One can understand the activity lessons by the teacher	3.66	1.027	82.0
18	The teacher checks the location area of the activity before conducting activities	4.04	.909	65.0

Keywords: Validity, Reliability, Self-Risk Management and Standard Operating Procedure

For the level of moderately satisfied namely item 3 (79%), 4 (72%), 9 (76%) and 14 (77%), they indicated that teachers performed their duties by explaining safety procedures and making sure that they were in good hands as well as showing them the injuries they could inflict themselves if they defied the teachers' instructions during activities. As for the highly satisfied category, the percentages were derived from questions 8 (90%) and 15 (82%) which showed that teachers gave explanation and conducted lessons outside of classroom explicitly by providing accurate, precise and clear explanation together with the knowledge in the right technique to use the equipment to the students.

Table 2. Positive Risk Management Response of Teacher's Group

No	Item	Mean	M(*SD*)	Percentage %
1	The teacher explains the safety measures before activities are carried out	4.24	.726	62.0
2	Teachers explaining the risks of not adhering to the safety measures when activities are carried out	4.18	.796	62.0
3	Understanding the treatment given by the teachers when an injury occurs on oneself	3.75	.880	79.0
4	Teachers explain the steps for first aid that needs to be done if injuries occur	4.03	.834	72.0
5	The teacher gives attention when one carries out the activities	3.98	.931	66.0
6	The teacher advices and corrects when one carries out the activity wrongly	4.05	.946	66.0
7	The teacher tests the activity's equipment first before giving it to students	3.89	.908	70.0
8	One feels safe with the equipment given by the teacher for activities	3.53	.758	90.0
14	The teacher explains the possible injuries which can occur during the activity if student fails to adhere to the teacher's instructions or rules	3.80	.932	76.0
15	One can understand the activity lessons by the teacher	3.89	.098	77.0
16	Identifying if student is unwell after conducting activity	3.79	.700	92.0
17	The teacher checks the location area of the activity before conducting activities	4.04	.909	65.0
18	Being able to help oneself if an injury occurs	3.60	.828	88.0

Table 2, shows questions which have positive impacts on the students from the teachers. There were five items which were at the percentage of moderately satisfied namely item 1(62%), 2 (62%), 5 (66%), 6 (66%) and 15 (77%). These items indicated that the teachers gave their attention on the students during activities while correcting their technical mechanism. As for percentages of items for moderately satisfied, there were three namely 7 (70%), 14 (76%) dan 18 (65%). In other words, these data indicated that students would be given first emergency aid by the teacher if there were any. At the same time students were equipped with sports items or activities of which the items were ensured safety and free from injury risks.

Examples of risky locations were underneath a tree, closer to wet and slippery areas as well as unfavourable weather such as heavy rain, thunder and lightning. There were five items which indicated the highly satisfied level namely item 3 (79%), 4 (72%), 8 (90%), 16 (92%) and 19 (88%): these items emphasized on students' understanding of treatment and teachers' explanation when there was injury. Teachers possessed the ability and experiences to identify students with health conditions. In fact, these teachers were able to prepare themselves when faced with risks while conducting the activities.

Table 3. Negative Risk Management Response of Student's Group

No	Item	Mean	M(*SD*)	Percentage %
10	knowing teachers have the qualification to give treatment	3.55	.868	84.0
11	the teacher is skilled in the activity that is carried out	3.61	.952	79.0
12	the teacher can identify the type of injury that can occur during activity	3.38	.826	90.0
13	the teacher conducts activities without informing the safety measures	2.15	1.19	92.0
16	the teacher can identify if the student is unwell after undergoing the activity	3.23	.972	90.0
17	the teacher continues with the activity even when the condition of the activity area is unsafe	2.21	.133	89.0
19	one can help themselves if an emergency occurs	3.06	.972	91.0
20	one have experienced injury previously during activities in school	2.80	1.33	88.0

Keywords: Validity, Reliability, Self-Risk Management and Standard Operating Procedure

Table 3, displays negative items which influenced the level of students' satisfaction when they conducted activities outside the classroom; item 11(79%) showed the value of moderately satisfied which showed that students did not trust their teacher's credibility in carrying out activities. As many as 7 items indicated strong percentage of level of ability such as item 10 (84%), 12 (90%), 13 (92%), 16 (90%), 17 (89%), 19 (91%) and 20 (88%). Teachers must attend courses which could enhance their skills in teaching and learning, outside of the classroom. In addition, teachers must be aware of safety regulations and proactively explained them so that they could attract students' interests to practice risk management consistently. Even though teachers are not experts, they could refer to the module prepared in controlling the risks on students. These students must be exposed to self-risk management to help themselves in the case of emergency.

Table 4. Negative Risk Management Response of Teacher's Group

No	Item	Mean	M(*SD*)	Percentage %
9	one is certified to help students if an injury occurs during activity	3.55	.868	84.0
10	one is qualified to treat students	3.61	.952	79.0
11	one is skilled in the activities carried out	3.38	.826	90.0
13	the teacher conducts activities without informing the safety measures	2.15	1.19	92.0
17	the teacher continues with the activity even when the condition of the activity area is unsafe	2.21	.133	89.0
20	one have experienced injury previously during activities in school	2.80	1.33	88.0

Table 4, indicated negative items which could influence teachers while conducting activities outside the classroom. All items showed high level of satisfaction in influencing activities outside the classroom; 9 (84%), 10 (79%), 11 (90%), 13 (92%), 17 (89%) and 20 (88%). Teachers must strive to obtain recognition so that classes outside of the classroom could be carried out smoothly and with confidence. Teachers' emphasis on the running of the activities around the location of activities must be taken seriously as well as being alert towards the changes in weather and other external factors must be taken into consideration so unwanted incidents could be avoided.

DISCUSSION

Even though teachers had explained the safety steps before carrying out activities, but its content was based on the teachers' point of view. Teachers were also not exposed to risk management in learning activities outside of the classroom due to their position as advisors and were not given the opportunity to attend courses in risk management. Nevertheless, Petersen (1982), stressed that if schools took students' welfare seriously, made sure that procedures were adhered to, provided enough courses for teachers, and, practised standard safety management policy, injuries among students could be avoided. The time has come for schools, District Education department, State Education department and Ministry of Education in Malaysia to play a serious role in ensuring that teachers are equipped efficient and standard risk management. In line with the mission in National Education Philosophy and complete educational transformation which involve the national educational policies. In order to develop the nation's asset according to the needs and vision on Malaysian education system, these requirements must be analysed.

CONCLUSION

Outdoor learning expose students to the risk of injuries which can cause loss of life, due to the lack of basic knowledge about risks or potential injuries, and how to avoid them. The students need to be exposed to students' self-risk management to reduce students' injuries during activities outside the classroom. Teachers also need to attend risk management courses to help them in handling activities outside the classroom efficiently and safely for the students. The students' self-risk management instrument created by researchers can be a guideline for the students and teachers to measure safety procedures before taking part in outdoor activities. It is also can help in problem solving during activities because the participants prepare themselves to face any uncertainty.

Keywords: Validity, Reliability, Self-Risk Management and Standard Operating Procedure

REFERENCES

Akta KKP. (2013). Akta keselamatan keselamatan dan kesihatan pekerjaan 1994. (Akta 514). Kuala Lumpur. MDC Publishers

Baumgatner, T. A., & H.Chung. (2001). Confidence limits for intraclass reliability coefficients. Measurement in Physical Education and Exercise Science 5: 179-188.

Boyes, M., Potter, T., Andkjaer, S., & Lindner, M. (2018). The role of planning in outdoor adventure decision-making. Journal of Adventure Education and Outdoor Learning, 1-15.

Carty, E. (2015). Outdoor Adventure Youth Work: Bridging Child and Youth Care and Outdoor Adventure (Doctoral dissertation).

Ferrell, R. (1977). Proceedings of the Art Conference in Safety Management Concepts. The National Safety Management Society Washington.

Gstaettner, A. M., Lee, D., & Rodger, K. (2018). The concept of risk in nature-based tourism and recreation–a systematic literature review. Current Issues in Tourism, 21(15), 1784-1809.

Hale, A. (1984). Safety management for outdoor program leaders. Workbook. Bellefontaine, Ohio.: The National Safety Network.

http://www.dosh.gov.my/index.php/ms/list-of-documents/aktiviti-jkkp/program-kesedaran-keselamatan-dan-kesihatan-pekerjaan-di-sekolah-2014/1211-isu-dan-cabaran-keselamatan-dan-kesihatan-pekerjaan

Kementerian Pendidikan Malaysia. Surat Pekeliling Ikhtisas Bil. 1/1995.

Perkeso, (2018), Laporan Tahunan Jabatan PERKESO, Kementerian Sumber Manusia, Malaysia.

Likert, R. (1932), A Technique for the measurement of attitudes. Archives of Psychology, 140, 1-55

Linacre, J. M. (2002). Optimizing rating scale category effectiveness. Journal of Applied Measurement, 3(1), 85-106.

Martínková, I., & Parry, J. (2017). Safe Danger–On the Experience of Challenge, Adventure and Risk in Education. Sport, ethics and philosophy, 11(1), 75-91.

Mercer, J. (2017). Integrated Risk Management Model for the Therapeutic Schools and Programs: Why the risk is worth taking. Journal of Therapeutic Schools and Programs, 1(2), 1732.

Petersen, D. (1982). Human Error-Reduction and Safety Management. STPM Press, New York, N.Y.

Petersen, D. (1982). Human Error Reduction and Safety Management. Garland STPM Press.

Reason, J. (1990). Human Error. Cambridge University Press.

Santhanadass, A. R. (2015). Kesahan dan kebolehpercayaan instrumen penilaian Pendidikan Luar (Master dissertation, Universiti Pendidikan Sultan Idris).

Yemini, M., Oplatka, I., & Sagie, N. (2018). Project Monitoring, Control, and Evaluation: The Unique Aspects of Projects in Schools. In Project Management in Schools (pp. 103-128). Palgrave Pivot, Cha.