INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION & DEVELOPMENT

OPEN ACCESS JOURNAL

Vol 10, Issue 3, (2021) E-ISSN: 2226-6348

Construction of the HoPA'S Program in Children 11 Years of Age: A Pilot Study

Nurul Diyana Sanuddin[1], Zulkhairi Mohd Azam[1], Hasmiza Abdul Majeed[2], Siti Aisyah binti Mazlan[3], Mohd Faridz Ahmad[4], Nurshahira Ibrahim[5]

[1]Faculty of Sports Science & Recreation, Universiti Teknologi MARA Cawangan Pahang, [2]Faculty of Sports Science & Recreation, Universiti Teknologi MARA Cawangan Negeri Sembilan, [3]Academy of Language Studies, Universiti Teknologi MARA Cawangan Pahang, [4]Faculty of Sports Science & Recreation, Universiti Teknologi MARA Cawangan Perlis, [5]Academy of Contemporary Islamic Studies, Universiti Teknologi MARA, Kampus Pahang, Malaysia

To Link this Article: http://dx.doi.org/10.6007/IJARPED/v10-i3/11259 DOI:10.6007/IJARPED/v10-i3/11259

Published Online: 21 August 2021

Abstract

Introduction: The alarming increase in Covid-19 cases has forced the government to implement movement control orders across the country. Due to these circumstances, the people's daily activities have been substantially affected, including those children. The pandemic has affected the children's activities, and they are unable to engage in outdoor and indoor activities. Moreover, the children's learning activities are also affected and need to be carried out through virtual education (*PDPR*). This virtual-based kind of learning will be more effective with guidance and support from the parents. However, this situation could lead to the feeling of stress and burdening the parents. Therefore, a systematic plan needs to be implemented to increase the children's physical activities and reduce the burden on parents during *PDPR*. **Objective:** The development of the HoPA'S Program (Home-Based Physical Activity) to increase physical activities among school children during the *PDPR*. In addition, the development of this program is a planned and systematic activity that will help children freely express ideas, especially in Physical Education or during Co-curriculum activities. **Methodology**: In this study, the validity of the content of the SPARK program is based on the construction model of Sidek and Jamaludin (2005). The HoPA'S Program content creation process begins with the objective and concludes with a draft union. In the initial stages of the content development of the program, researchers determine the purpose, objective of this program, and the appropriate types of activities that are applied to enhance the students' physical activities. Therefore, the development of the HoPA'S Program is through 2 phases, namely program construction and validity of the content. **Research findings:** Thus, the results of the expert assessment on HoPA'S Program contents have a high content legality value of .86. Therefore, this value can be explained that the HoPA'S Program is highly relevant to the learning and teaching process for Physical Education subjects and co-curricular activities. In conclusion, the program is expected to provide opportunities for children to undergo natural

learning through cognitive, social theories that contribute to the learning and teaching process of Physical and Health Education subjects and their considerable impact on children's physical activity.

Keywords: HoPA'S Program (Home-Based Physical Activity), School Children, Physical Activity

Introduction

The current outbreak of the coronavirus disease 2019 (Covid-19) had begun in Wuhan, China, and then spread through to the entire world, involving 353,000 cases and 15,000 casualties were detected worldwide (Pavon & Baeza, 2020), including Malaysia. In this time of pandemic crisis, the Malaysian Government had imposed the Movement Control Order (MCO) since March 18, 2020, on the whole nation in the hope to counteract the quick spreading of this viral disease (Naderipour et al., 2020) that had an effect all sectors including the education sector. Due to these circumstances, the teaching process still needs to be carried out to avoid students' learning process, especially primary school students, far behind as education is one of the critical factors in building a good nation (Baiyere & Li, 2016). Thus, the government had introduced home-based learning (HBL). It indirectly changes the traditional way of education to the modern way of learning via electronic/technology (Di Vaio et al., 2020). E-learning can be classified as either synchronous or asynchronous as it can extend to which a course is bound by place and/or time (Assareha & Bidokht, 2011). Thus, e-learning is covered under a more extensive term of technology-based learning through websites, learning portals, video conferencing, YouTube, mobile apps, and thousand types of free available websites for blended learning tools (Shahzad et al., 2020).

During the pandemic crisis, the knowledge was delivered insufficiently, especially on the practical implementation such as physical activity as teachers have to transfer the face-to-face learning theoretically or practically into the online system. Previously, a study by Carrillo & Flores (2020) had highlighted the need for a comprehensive view of the pedagogy of online education that integrates technology to support teaching and learning. Therefore, a systematic and effective program needs to be built in the subject of physical education that is appropriate for the age of primary school children to produce a positive effect on the improvement of physical fitness and health. (Fu et al., 2016). In addition, there was some evidence to suggest that physical education subjects do not have a positive effect on the improvement of physical activities among primary school children (Marques et al., 2017). For children and youth, physical activity is closely coupled to school-related activities, active transport, and sport participation (Hoffmann et al., 2019) since schools are a significant institution and are responsible for promoting physical activity among children to adolescents as approximately 97% of primary school students take physical education subjects (Hastie, 2017). The school environment is ideal for implementing physical activity interventions due to the possibility of reaching a vast number of children who are spending most of their time in schools (Hills, Dengel & Lubans, 2015). Physical activity has an essential role in the well-being as for maintaining physical capacity and health during a person's lifetime (Brandon et al., 2004; DiBrezzo et al., 2005; Gregg et al., 2003; Hruda, Hicks & McCartney, 2003; Pedersen & Saltin, 2006; Puggaard, 2003; Whelton et al., 2002). The modes, regularity, and intensity of physical activity change with increasing age, so that the total time spent in physical activity might decrease (Frisard et al., 2000; Landi et al., 2004; Sherwood & Jeffery, 2000). Therefore, involvement in regular physical activity during childhood and adolescence is associated with various physiological and psychological variables.

Due to that, the SPARK Program had been introduced as it had been designed for optimal physical activity participation facilitated by providing students' choices and providing Physical Education teacher training throughout the school year (McKenzie et al., 1997). Sallis and McKenzie built the SPARK program in 1991; it was developed from a public health point of view in response to society's need to improve physical activity and physical fitness (Sallis et al., 1997). It is not only applicable during Physical Education subjects, but it can also be used after school hours to encourage the generalization of physical activity and physical fitness among students (Kahan & McKenzie, 2017). SPARK is the abbreviation of Sports, Play, and Active Recreation for Kids (Sallis et al., 1997), one of the programs that shows an improvement in physical fitness activities in school. It consists of two main features: fitness-related physical activities and skill fitness activities requiring enthusiasm, cooperation, and fun in running the program (Herrick, Thompson, Kinder & Madsen, 2012). In addition, the SPARK program had begun as a research-based Physical Education program for primary schools only but now had been expanded towards Physical Education programs among secondary schools. The knowledge and learning gained while in the Physical Education class needs to be provided more systematically and effectively. It can attract children to do physical activities, increasing involvement in physical fitness activities and encouraging interest in a healthy lifestyle (Doozan & Bae, 2016). Accordingly, systematic learning and programming studies for physical education subjects are very poorly conducted (Chin & Ludwig, 2013). Thus, it suggests that a proactive measure should attract children to be actively involved in physical activity. Thus, this study aims to develop a HoPA'S Program (Home-Based Physical Activity) during *PDPR* to improve physical fitness activities among primary school children.

Methodology

Validity is a fundamental factor in quantitative research. According to Azizi and colleagues (2007), validity is one of the essential concepts to determine the context of construct measurement or ideas such as attitude, motivation, perception, fitness, and achievement. Validating the content of the HoPA'S Program is based on the module construction model of Sidek and Jamaludin (2005). Figure 1 below denotes the process of building the content module of the HoPA'S Program. The process of preparing the content of the HoPA'S Program begins with goal building and ends with draft consolidation. At the initial stage of the content construction of this program, researchers determine the purpose, needs, and main objectives of this program and the type of appropriate activities applied to improve students' physical fitness activities. The construction of the overall content of this program refers to the need for learning and teaching objectives for the subject of Physical Education and Health based on three essential domains in this program: fitness, skills, and fun.

This content design was prepared, and researchers identified several types of theories involved in the construction of program content: ecological model, social theory, and cognitive social theory. The theories have been applied in the content of this program to produce an effective learning and teaching process. Next, students need to understand and learn each activity carried out to increase physical fitness activities and adopt a lifestyle through the knowledge and skills acquired previously. In selecting activities for this program, researchers have selected eight (8) types of activities based on physical fitness activities and skills fitness activities. The selection of activities and strategies used in this program is based on the researcher's domain to affect the learning process positively. To obtain the effectiveness of this program, the next stage is the study of program content, whether

researchers in this study can use the program. Then, a process of program testing and improvement is carried out. If the program's content is found not to achieve the objectives set by the researcher, the previous process needs to be done again. To obtain the best results to identify program content that can be used in this program, researchers have referred to three field experts consisting of senior lecturers of Universiti Teknologi MARA Pahang Branch to analyze and discuss the identification of learning and teaching process needs for students. For the subject of Physical Education and Health. The content and types of activities in the HoPA'S Program, developed by the researchers, were reviewed, re-examined, and corrected based on the feedback and advice of selected experts. The content and activities of the HoPA'S Program, used by researchers to determine the achievement of content validity, is by using a survey instrument in the form of a Likert scale (Appendix D), which has five scales, namely 5 (Strongly agree), 4 (Agree), 3 (Disagree), 2 (Do not agree) and 1 (Strongly Disagree). The expert evaluation used is based on the formula proposed by Sidek and Jamaluddin in 2005 as below:

$$\frac{\text{Total Expert Score (X)}}{\text{Maximum Score (45)}} \times 100\% = \text{Achieving Expert Content Validity.}$$

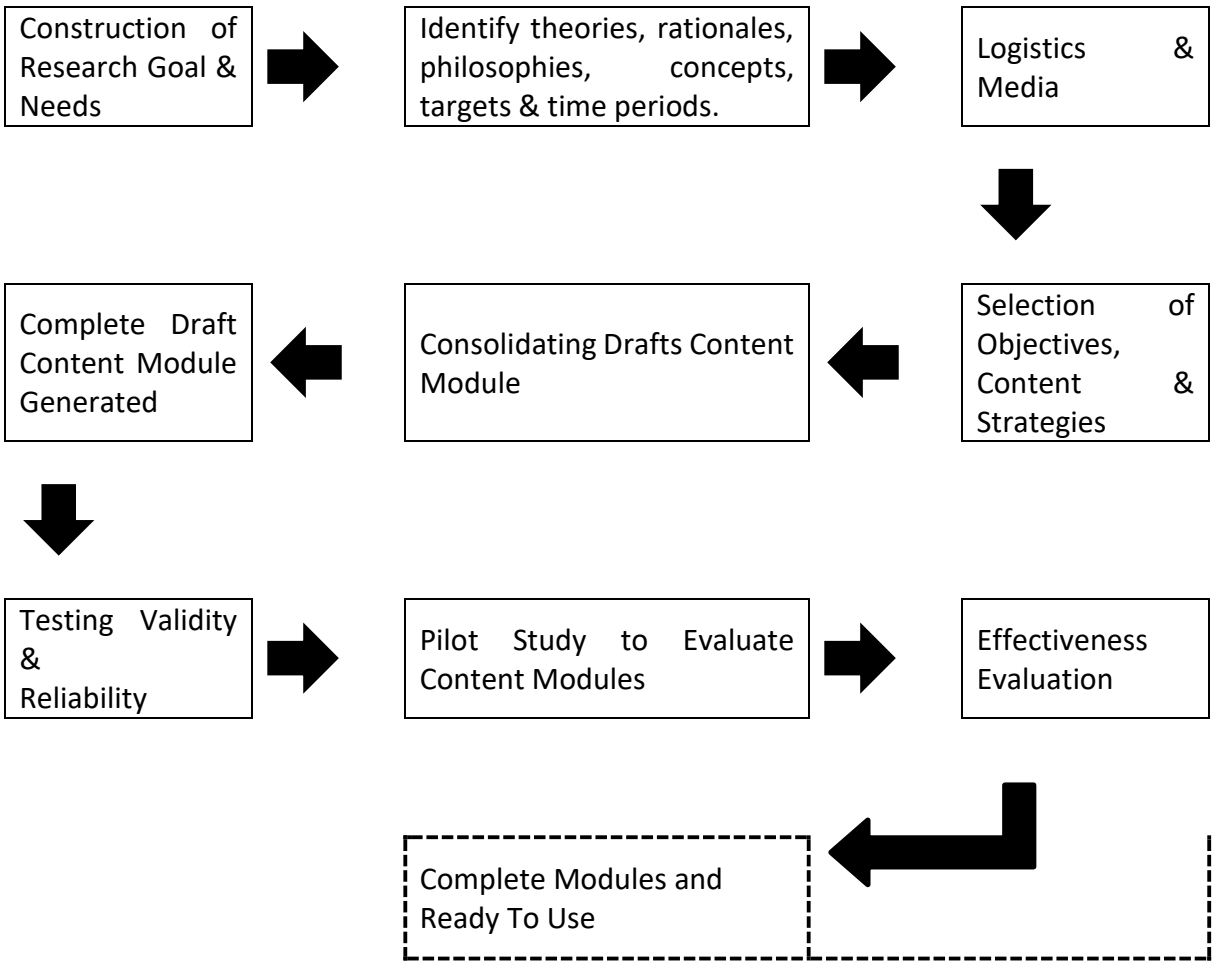

Figure 1: HoPA's Program Content Module Construction Process

Table 1 below shows the content validity value of the SPARK Program based on the evaluation results by the three experts whom the researchers have selected.

Table 1
Validity of HoPA'S Program content (Expert)

Score/ Expert	Expert 1	Expert 2	Expert 3
Item 1	5	5	4
Item 2	4	4	4
Item 3	5	5	4
Item 4	4	4	4
Item 5	4	4	4
Item 6	5	5	4
Item 7	5	4	5
Item 8	4	4	4
Item 9	5	4	4
r Value	0.91	0.86	0.82

Overall Value *r* = *.86*

According to Tuckman (1978), a value of .60 is considered to have mastered or achieved a high level of achievement. Therefore, the results of expert evaluation of the content of the HoPA'S Program have a high content validity value of .86. Therefore, this value can explain that the content of the HoPA'S Program is very relevant to be used in the learning and teaching process for the subject of Physical Education and Health, and it is very suitable for use in the present study.

Conclusion

In conclusion, HoPA'S Program is expected to provide opportunities for children to experience learning naturally through exploration, the discovery of new concepts, enrichment, and construction of experiences. In addition, the application of social cognitive theory in the learning and teaching process for the subject of Physical Education and Health applied in HoPA'S Program can affect and enhance children's interest to engage in physical activity. Fisher (2011) stated that a strong social relationship between children would occur when a fun learning experience is given during the learning process itself because it can avoid children's boredom with the subjects learned, and even via this program can arouse the interest of children against the learning carried out. A variety of previous studies (Dennison et al., 1988; Pate et al., 1999; Robertson-Wilson et al., 2003) suggest that an important implication for health practitioners is that good physical activity habits are formed early. Furthermore, it is reported that individuals who were physically inactive during adolescence are more likely to be inactive in their adulthood (Gordon-Larsen et al., 2004). Hence, HoPA'S Program with the high content validity value may substantially impact the engagement of children's physical activity.

Acknowledgments

This research was funded by Geran Lestari Khas 2020 from Universiti Teknologi MARA (UiTM) Cawangan Pahang.The authors would like to acknowledge and thank all of the participants for their valuable contribution to this project.

References

Assareha, A., & Bidokht, M., H. (2011). Barriers to e-teaching and e-learning. Procedia Computer Science 3, 791–795.

Baiyere, A., & Li, H. (2016). Application of a virtual collaborative environment in a teaching Case. In AMCIS 2016: Surfing the IT Innovation Wave - 22nd Americas Conference on Information Systems.

Brandon, L. J., Boyette, L. W., Lloyd, A., & Gaasch, D. A. (2004). Resistive training and long-term function in older adults. Journal of Aging and Physical Activity, 12(1), 10–28.

Carrillo, C., & Flores, M. A. (2020) COVID-19 and teacher education: a literature review of online teaching and learning practices. European Journal of Teacher Education, 43(4), 466-487.

Chin, J. J., & Ludwig, D. (2013). Increasing children's physical activity during school recess periods. *Revista Panamericana de Salud Pública*, 34(5), 367-374.

Dennison, B. A., Straus, J. H., Mellitis, P., & Charney, E. (1988). Childhood physical fitness tests: Predictor of adult physical activity levels? Pediatrics, 82, 324-330.

Di Vaio, A., Boccia, F., Landriani, L., & Palladino, R. (2020). Artificial intelligence in the agri-food system: Rethinking sustainable business models in the COVID-19 scenario. Sustainability 12(12), 48-51.

DiBrezzo, R., Shadden, B., B., Raybon, B., H. & Powers, M. (2005). Exercise intervention designed to improve strength and dynamic balance among community-dwelling older adults. Journal of Aging and Physical Activity, 13(2), 198–209.

Doozan, A., & Bae, M. (2016). Teaching Physical Literacy to Promote Healthy Lives: TGfU and Related Approaches. *The Physical Educator*, 73, 471-487.

Fisher, A. (2011). Critical thinking: An introduction. Cambridge University Press.

Fu, Y., Gao, Z., Hannon, J. C., Burns, R. D., & Brusseau Jr, T. A. (2016). Effect of the SPARK Program on Physical Activity, Cardiorespiratory Endurance, and Motivation in Middle-School Students. Journal of physical activity & health, 13(5).

Gordon-Larsen, P., Adair, L. S., Nelson, M. C., & Popkin, B. M. (2004). Five-year obesity incidence in the transition period between adolescence and adulthood: The National Longitudinal Study of Adolescent Health. Am. J. Clin. Nutr., 80, 569–575.

Gregg, E. W., Gerzoff, R. B., Caspersen, C. J., Williamson, D. F., & Narayan, K. M. V. (2003). Relationship of walking to mortality among US adults with diabetes. Archives of Internal Medicine, 163(12), 1440–1447.

Hastie, P. A. (2017). Revisiting the National Physical Education Content Standards: What Do We Really Know About Our Achievement of the Physically Educated/Literate Person? Journal of Teaching in Physical Education, 36(1), 3-19.

Herrick, H., Thompson, H., Kinder, J., & Madsen, K. A. (2012). Use of SPARK to Promote After-School Physical Activity. *Journal of School Health*, 82(10), 457-461.

Hills, A. P., Dengel, D. R., & Lubans, D. R. (2015). Supporting public health priorities: Recommendations for physical education and physical activity promotion in schools. Prog. Cardiovasc. Dis., 57, 368–374.

Hruda, K. V., Hicks, A. L. & McCartney, N. (2003). Training for muscle power in older adults: effects on functional abilities. Canadian Journal of Applied Physiology, 28(2), 178–189.

Kahan, D., & McKenzie, T. L. (2017). School and neighborhood predictors of physical fitness in elementary school students. Journal of school health, 87(6), 448-456.

Landi, F., Cesari, M., Onder, G., Lattanzio, F., Gravina, E. M., & Bernabei, R. (2004). Physical activity and mortality in frail, community-living elderly patients. Journals of Gerontology. Series A, 59(8), 833–837.

Marques, A., Gómez, F., Martins, J., Catunda, R., & Sarmento, H. (2017). Association between physical education, school-based physical activity, and academic performance: a

systematic review (Asociación entre la educación física, la actividad física en la escuela, y el rendimiento académico: una revisión sistemática). Retos, (31), 316-320.

McKenzie, T. L., Sallis, J. F., Kolody, B., & Faucette, N. (1997). Long-term effects of a physical education curriculum and staff development program: SPARK. Research. Res Q Exerc Sport. 68, 280–291.

Naderipour, A., Abdul-Malek, Z., Ahmad, N. A., Kamyab, H., Ashokkumar, V., Ngamcharussrivichai, C., & Chelliapan, S. (2020). Effect of COVID-19 virus on reducing GHG emission and increasing energy generated by renewable energy sources: A brief study in Malaysian context. Environmental technology & innovation, 20, 1-8.

Pate, R. R., Trost, S. G., Dowda, M., Ott, A. E., Ward, D. S., Saunders, R., & Felton, G. (1999). Tracking of physical activity, physical inactivity, and health-related physical fitness in rural youth. Pediatric Exercise Science, 11, 364-376.

Pavon, D. J., & Baeza, A. C. (2020). Physical exercise as therapy to fight against the mental and physical consequences of COVID-19 quarantine: Special focus in older people. Progress in Cardiovascular Diseases, 63, 386−388.

Pedersen, B. K., & Saltin, B. (2006). Evidence for prescribing exercise as therapy in chronic disease. Scandinavian Journal of Medicine and Science in Sports, 16(1), 3–63.

Puggaard, L. (2003). Effects of training on functional performance in 65, 75 and 85-year-old women: experiences deriving from community-based studies in Odense, Denmark. Scandinavian Journal of Medicine and Science in Sports, 13(1), 70–76.

Robertson-Wilson, J., Baker, J., Derbyshire, E., & Côté, J. (2003). Childhood Physical Activity Involvement in Active and Inactive Female Adults. Tracing Physical Activity, 9(1)1 – 8.

Sallis, J. F., McKenzie, T. L., Alcaraz, J. E., Kolody, B., Faucette, N., & Hovell, M. F. (1997). The effects of a 2-year physical education program (SPARK) on physical activity and fitness in elementary school students. Sports, Play, and Active Recreation for Kids. *American Journal of Public Health*, 87(8), 1328-1334.

Shahzad, A., Hassan, R., Aremu, A. Y., Hussain, A., & Lodhi, R., N. (2020). Effects of COVID-19 in E-learning on higher education institution students: The group comparison between male and female. Qual Quant. 1-22.

Sherwood, N. E., & Jeffery, R. W. (2000). The behavioral determinants of exercise: Implications for physical activity interventions. Annual Review of Nutrition, 20, 21–44.

Sidek, M. N., & Jamaludin, A. (2005). Pembinaan modul: Bagaimana membina modul latihan dan modul akademik. Serdang: Penerbit Universiti Putra Malaysia.

Whelton, A., White, W. B., Bello, A. E., Puma, J. A., & Fort, J. G. (2002). Effects of celecoxib and rofecoxib on blood pressure and edema in patients ≥65 years of age with systemic hypertension and osteoarthritis. American Journal of Cardiology, 90(9), 959–963.