



Online Seminar: Forms of Support and Physical Activity for Early Childhood with Disabilities

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Abstract

Background: Early childhood with disabilities requires inclusive and adapted physical activity to support optimal motor, social, and emotional development. Limited understanding among educators and parents constrains effective implementation, while digital learning platforms provide accessible alternatives for expanding knowledge and professional discourse.

Aims: This community service activity aimed to enhance participants' understanding of forms of support and adapted physical activities for early childhood with disabilities through an online seminar, while fostering awareness of inclusive practices and interdisciplinary collaboration.

Methods: The activity was conducted in the form of an online seminar using the Zoom Meeting platform. The seminar involved expert speakers in adapted physical education and was attended by lecturers, teachers, and university students from Indonesia and Malaysia. The program consisted of structured presentations followed by interactive discussion and question-and-answer sessions to facilitate knowledge exchange and practical reflection.

Result: The seminar was attended by 60 participants who demonstrated high engagement and active participation throughout the sessions. Discussions revealed improved understanding of adapted physical activity principles, early identification of disabilities, and practical strategies for providing appropriate support for children with diverse needs. Participants reported that the examples and explanations provided were relevant and applicable to educational and home contexts.

Conclusion: The results show that online seminars function as effective and inclusive platforms for sharing knowledge on adapted physical activity for early childhood with disabilities, translating initial objectives into meaningful learning outcomes and highlighting prospects for hybrid programs and stakeholder involvement.

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INTRODUCTION

The preparation of scientific work is a series of scientific thinking processes carried out by individuals or groups, which must comply with scholarly principles and ethics and be recognised and adhered to by the academic community (de los Santos et al., 2025; Wolpe, 2006). Scientific writing is also an essential part of academic activities aimed at conveying ideas, research findings, or experiences to a wider audience. In practice, such writing must fulfil fundamental principles, including being logical, systematic, and objective. A well-written scientific paper must meet several criteria, namely logical reasoning, systematic structure, and objective presentation (Burhaein, 2022; Mack, 2018). Every idea presented must be scientifically accountable and organised according to a coherent line of reasoning based on empirical data from the field. One of the most important aspects

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of scientific work is publication. Publication represents the final and essential stage in the process of scientific writing (Casadevall et al., 2024; Yousuf et al., 2024). Publication not only serves as a medium for disseminating information, but also as a tangible contribution to the development of science and the improvement of educational quality in society. In the current era, publication has also become one of the benchmarks of academic performance, as well as a means of building connectivity among researchers and practitioners across various fields.

In the context of early childhood education, particularly for children with disabilities, special attention is required in providing developmental stimulation through a comprehensive approach. Experts in Physical Education agree that Physical Education, Sports, and Health (PJOK) is an inseparable part of education as a whole, with its primary focus on utilising physical activity as a means to achieve general educational objectives (Gustian et al., 2024; Khory et al., 2023). Inclusively and adaptedly designed physical activities constitute an effective form of intervention to support children's motor, social, and emotional development. Unfortunately, many educators and parents still lack an adequate understanding of this approach, both theoretically and practically. In inclusive classrooms, where learners with diverse special needs learn together, it is crucial to ensure that all students have equal opportunities to actively participate in physical activities. Teachers can adapt the learning environment by adjusting the physical and/or social context in which children learn (Bertills & Björk, 2024; Engelbrecht et al., 2025; Esengulova et al., 2025).

This online seminar was organised as a form of community service, with the aim of providing education and a platform for sharing experiences related to disability-friendly physical activities for early childhood. The seminar is expected to serve as a bridge for teachers, parents, students, and other relevant stakeholders to gain a deeper understanding of strategies for implementing appropriate, measurable, and impactful physical activities that positively support the development of children with special needs.

METHOD

The webinar was conducted remotely in an online format. It was held on 27 June 2024. The series of activities concluded after all materials had been delivered comprehensively. Throughout the webinar, all participants attended the presentations delivered by the scheduled speakers via the Zoom Meeting platform, the access link to which had been previously distributed by the organising committee. The activity was concluded with an interactive discussion session in the form of a question-and-answer segment between participants and speakers, providing space for clarification, deeper exploration of the material, and the exchange of insights relevant to the seminar theme.

The total number of webinar participants was 60 people, consisting of three lecturers (who served as speakers and Head of LPPM UMNU Kebumen) and 58 students (Indonesia & Malaysia). More detailed demographic data of the webinar participants can be seen in Table 1.

Table 1. Demographic Data of Webinar Participants

No.	Participant Name (as displayed on Zoom)	Status/Profession
1.	Ali Md Nadzalan	Lecturers/ Speaker
2.	Maryanti	Students
3.	Masino	Students
4.	Diniahnanie	Students
5.	Ihsanul Hanif Adi Prasetya	Teacher/Students
6.	Risdianto Hermawan	Lecturer/ Head of LPPM UMNU Kebumen
7.	Erick Burhaein	Lecturers/ Speaker
8.	Siti Nurjuliana	Students
9.	Endang Irianti	Students
10.	Siti Roikah	Students
11.	Argo Widayat	Students
12.	Harith Danish	Students
13.	Zaenal Jaiz	Students
14.	Ammar Rafi	Students

15. Arif Budiman	Students
16. Evi Yuliyanti	Students
17. Yusuf Abdullah	Students
18. Dayanaa Batrisyia	Students
19. Rahimie Yasri	Students
20. Fakhry	Students
21. Aldy Kurniawan	Students
22. Alya Farzana	Students
23. Sri Parwati	Students
24. Nurul Athirah	Students
25. Auni Batrisya	Students
26. Adam Hariz	Students
27. Umi Hidayatul Karim	Students
28. Febi Nurrohmah	Students
29. Muhd Rais	Students
30. Musolih Imus	Students
31. Harith Irfan	Students
32. Adam Bailhaqil	Students
33. Nadia Afiqah	Students
34. Najwa Nadhirah	Students
35. Mohamad Haz	Students
36. Arif Hasan	Students
37. Hafiz Figry	Students
38. Husna Faizah	Students
39. Hafis Aqil	Students
40. Marwah Hidayah	Students
41. Muhammad Izr	Students
42. Aris Budi Prayitno	Students
43. Khairul Farhan	Students
44. Auliyatun Nisa	Students
45. Agus Rianto	Students
46. Bagus Nur Fadillah	Students
47. Hanif Prasetya	Students
48. Nur Aqilah	Students
49. Amir Haikal	Students
50. Yassingih	Students
51. Wahyu Zah Putri	Students
52. Muhammad Rad	Students
53. Putri Lulu Mubarakah	Students
54. Fatin Aisyah	Students
55. Tengku Nurani	Students
56. Julian Nio	Students
57. Agus Hendrianto	Students
58. Nurul Nabilah	Students
59. Siti Nur Zaena Ulfah	Students
60. Flamfdh	Students

RESULTS AND DISCUSSION

Results

The results of the webinar activities began with an opening session followed by the first presentation entitled "Introduction to Physical Activity," delivered by Prof. Madya Dr. Ali bin Md Nadzalan (UPSI Malaysia) as the first speaker. After the opening remarks and the first presentation, the second session was continued by Dr. Erick Burhaein, M.Pd., AIFO (UMNU Kebumen). The material

presented focused on “Forms of Support and Physical Activities for Early Childhood with Hearing Impairments.” This activity is documented in [Figure 1](#).

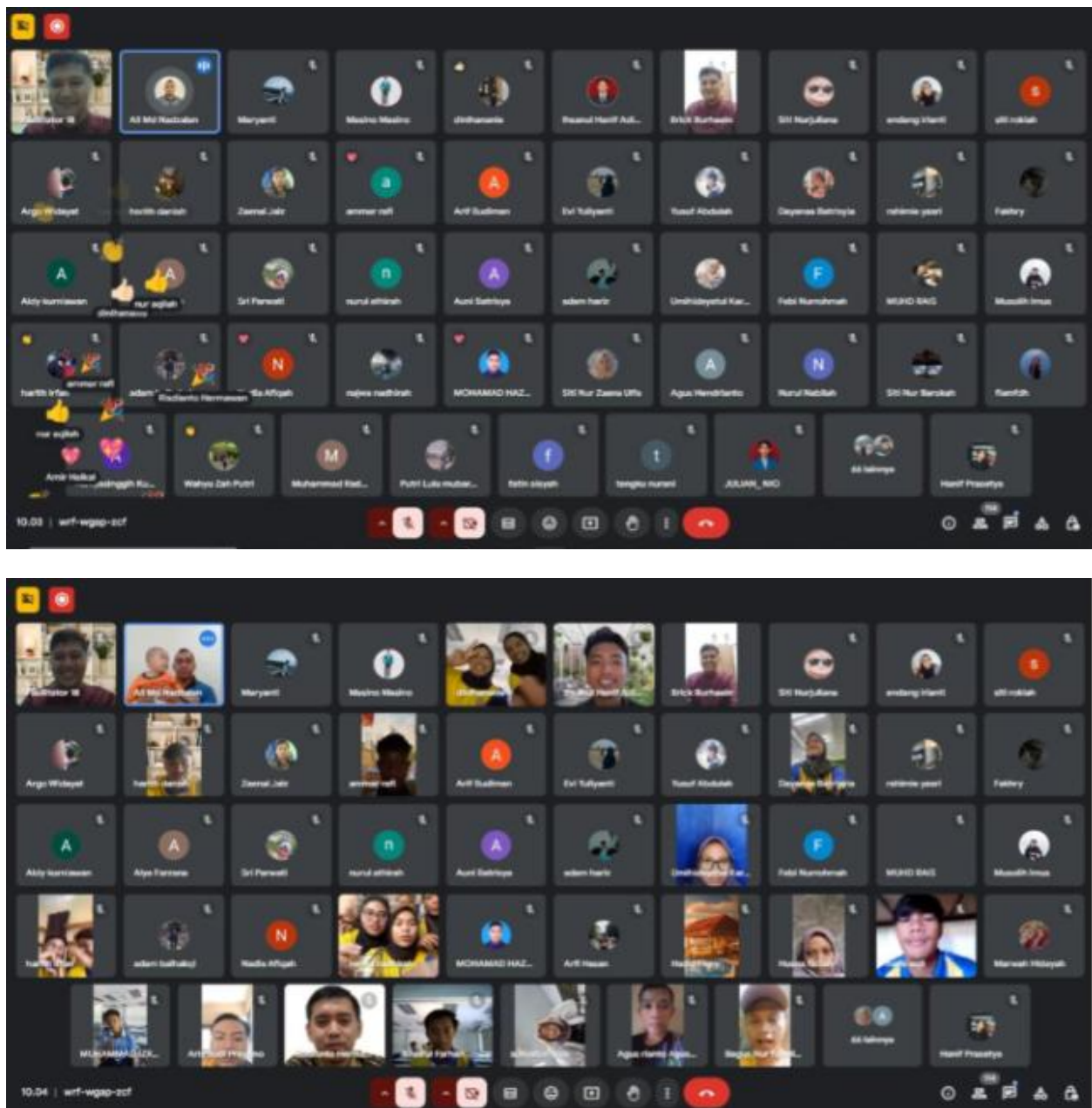


Figure 1. Discussion conditions during the webinar

During the implementation of the webinar, participants showed strong enthusiasm in listening to the presentations and engaging in question-and-answer discussions with both speakers. Of the total participants, there were three questioners in the first session and four questioners in the second session. All questioners were students. Questions addressed to the first speaker were related to various types of physical activities and effective ways of implementing them. Questions directed to the second speaker were more varied, as they focused on forms of support for physical activities for children with special needs. Because the level of support for children with special needs is quite diverse, an engaging discussion took place, ranging from assistance for physical activities for children with mild hearing impairments to those with severe hearing impairments. Questions raised by participants also concerned variations in providing support for children with hearing impairments.

All questions submitted by participants received clear and comprehensive responses from the speakers. The discussion process took place interactively and in a two-way manner, especially between the speakers and the participants who asked questions. The speakers did not only provide

theoretical answers, but also conveyed concrete and applicable examples relevant to the context of the questions. This approach helped bridge participants' lack of understanding, making the material easier to comprehend and applicable in practice, particularly in the field of adapted physical education. The condition of the webinar forum during the discussion session can be seen in [Figure 1](#).

Discussion

Adapted physical education is an approach specifically designed to ensure that every individual ([Bittner et al., 2020](#); [NCPEID, 2020](#); [Peng, 2020](#)), including young children with disabilities, receives fair access to physical activities. In the context of early childhood education, physical activity is not only a means of developing gross and fine motor skills, but also an important medium for strengthening children's social, emotional, and cognitive aspects ([Oktarifaldi et al., 2024](#); [Sutapa et al., 2021](#)). In the seminar material, participants were invited to understand the importance of early identification of disability conditions. Early detection allows for more targeted interventions so that children's needs can be optimally met ([Maharaeni & Susetyo, 2024](#); [Sadoo et al., 2022](#)). This activity emphasised the urgency of collaboration between schools, medical professionals, and parents in the referral process and further handling ([Hallaråker et al., 2025](#); [Mazon et al., 2022](#)).

In addition, seminar participants were introduced to a framework for physical activity interventions that can be applied at home and at school, which are adapted and flexible in nature ([Smith et al., 2023](#)). Children have specific characteristics that are distinct from adults; they are always active, dynamic, enthusiastic, and curious about what they see, hear, and feel, and they seem never to stop exploring and learning ([Huxtable et al., 2023](#)). The recommended activities do not require expensive equipment or facilities, but instead utilise simple objects around the child. Examples include gross motor games using soft balls, walking or crawling activities with light obstacles, and balance exercises using soft mats. Play activities have a significant contribution to the development of six main aspects in children, including self-awareness, emotional development, social skills, communication abilities, cognitive development, and skills ([Alotaibi, 2024](#)). The health benefits of physical activity for children and adolescents have been widely documented.

Participants also received explanations regarding the basic principles of adapted physical education, namely accessibility, active participation, and an individualised approach. This means that every child has the right to be involved, even with differing abilities. Inclusive physical activities help children feel accepted and valued, and enhance their self-confidence. Optimisation of adapted physical education learning can be achieved through synergy between neuroscience-based learning, traditional games, and character education for children with mild disabilities.

Discussions during the seminar also indicated a growing awareness among teachers and parents of the importance of a supportive environment. Many participants conveyed challenges in the field, such as limited facilities, insufficient teacher knowledge, and stigma towards children with disabilities. However, through this seminar, they began to see that change can start from small interventions carried out consistently. Although the number of special schools is limited, the presence of inclusive schools can be one solution to ensure that children continue to receive educational services. As a form of reinforcement, the material also highlighted the importance of continued training and cross-sector collaboration, including the involvement of local communities. Collective awareness is key to building an inclusive and sustainable culture of physical education. At every level of the learning process, emphasis needs to be placed on training learners to develop critical thinking skills.

Implications

The results of this community service activity imply that online seminars can function as an effective and inclusive medium for disseminating knowledge related to adapted physical activity for early childhood with disabilities. The increased engagement and quality of discussion observed during the seminar indicate that digital platforms are capable of facilitating meaningful learning, professional reflection, and cross-sector dialogue among educators, parents, and students. These implications highlight the potential of online-based educational interventions to reduce knowledge gaps, expand access to expertise, and promote inclusive perspectives in early childhood physical education, particularly in contexts where face-to-face training opportunities are limited.

Contribution of Community Service

This community service activity contributes substantively to the development of awareness and practical understanding regarding forms of support and physical activity for young children with disabilities. By bringing together speakers with expertise in adapted physical education and participants from diverse educational backgrounds, the seminar strengthened the capacity of stakeholders to design and implement disability-friendly physical activities. Furthermore, this activity reinforces the role of higher education institutions as facilitators of inclusive knowledge transfer and social advocacy, offering a scalable model of community service that integrates academic insight, professional practice, and community engagement through digital platforms.

Limitations

Despite its positive outcomes, this activity has several limitations that warrant consideration. The online format limited opportunities for direct observation and hands-on practice, which are often essential in understanding adapted physical activities for children with disabilities. In addition, participant diversity was largely limited to students and educators, with relatively minimal direct involvement from parents of children with disabilities. The evaluation of seminar impact was also primarily qualitative, relying on participation intensity and discussion dynamics rather than standardized measurement tools. These limitations suggest that the findings should be interpreted as indicative rather than conclusive.

Suggestions

Based on these limitations, future community service initiatives are recommended to combine online seminars with follow-up practical workshops, either in hybrid or face-to-face formats, to enhance experiential learning. Expanding participant representation to include parents, caregivers, and health professionals would also enrich the interdisciplinary perspective of such activities. Additionally, the use of structured evaluation instruments, such as pre- and post-seminar assessments, is suggested to more systematically measure changes in participants' knowledge and attitudes. Through these improvements, similar programs can achieve deeper impact and contribute more effectively to the advancement of inclusive physical activity practices for early childhood with disabilities.

CONCLUSION

This community service activity was designed to respond to the needs identified in the Introduction, namely the limited understanding and practical competence of educators, parents, and students regarding adapted physical activity for early childhood with disabilities. The Results and Discussion demonstrate that these expectations were successfully achieved through the implementation of an online seminar that functioned as an inclusive learning forum, facilitating knowledge exchange, critical reflection, and practical insight into forms of support and disability-friendly physical activities. High participant engagement, active discussion, and the relevance of questions raised indicate that the seminar effectively increased awareness and literacy related to adapted physical education in early childhood contexts.

The coherence between the initial objectives and the observed outcomes reinforces the validity of this community service initiative. As evidenced in the discussion, the seminar not only conveyed theoretical foundations of adapted physical education but also provided applicable strategies that can be implemented both at school and at home. The emphasis on early identification, individualised support, and collaborative roles among teachers, parents, and other professionals reflects a comprehensive approach to supporting the physical, social, and emotional development of children with disabilities. In this regard, the activity fulfilled its role as a bridge between academic knowledge and community practice.

Looking ahead, the outcomes of this seminar offer promising prospects for further development and broader application. Similar initiatives may be expanded through hybrid or face-to-face formats to strengthen experiential learning, complemented by structured evaluation instruments to assess learning impact more systematically. Future community service and research activities are also encouraged to explore longitudinal effects of educator training and parental involvement on children's physical activity participation and developmental outcomes. Overall, this

activity demonstrates that online-based community service can serve as a scalable, meaningful, and sustainable strategy to advance inclusive physical activity practices and contribute to a more equitable educational environment for early childhood with disabilities.

AUTHOR CONTRIBUTION STATEMENT

EB conceptualized the community service activity, coordinated the seminar implementation, delivered core materials, and drafted the original manuscript. IHAP contributed to participant coordination, assisted in seminar facilitation, and supported data documentation and organization. AMDN provided conceptual input on adapted physical activity, served as a keynote speaker, and critically reviewed the manuscript for intellectual and practical content. All authors reviewed and approved the final version of the manuscript and agreed to be accountable for all aspects of the work.

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