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THE IMPLEMENTATION OF COOPERATIVE LEARNING THROUGH TEAM GAMES TOURNAMENT (TGT) SUPPORTED BY FLASHCARD MEDIA TO INCREASE THE GROSS MOTOR SKILLS OF SLOW LEARNER STUDENTS FROM 4TH GRADERS AT SDN 003 KARANGAN

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ABSTRACT
This study aimed to improve the gross motor skills of students with slow learner characteristics through the implementation of the Team Games Tournament (TGT) cooperative learning model assisted by flashcard media. The study employed Classroom Action Research (CAR) based on the Kemmis and McTaggart model, conducted in two cycles consisting of planning, implementation, observation, and reflection. The participants were six fourth-grade students at SDN 003 Karangan. Data were collected through observation and gross motor performance tests and analyzed descriptively using quantitative methods by comparing the results across cycles. The TGT model was implemented through five stages: class presentation, teams, games, tournament, and team recognition, with flashcards used as visual media at each stage. The results showed an improvement in students' gross motor skills from Cycle I to Cycle II. The average score increased by 16.30%, while classical mastery improved from 50% to 83.33%, exceeding the predetermined success indicator of ≥70%. Therefore, the implementation of the TGT model assisted by flashcard media effectively improved student'gross motor skills.

INTRODUCTION

Gross motor skills are one of the fundamental aspects of development at the elementary school level because they play a role in supporting physical activity, learning readiness, and the social development of students. Amorim et al. (2024) explained that gross motor skills are one of the psychomotor components that have an important influence on the development of children's abilities. According to Wang and Wang (2024), gross motor skills are the body's ability to perform movements that use large muscles, most or all of the body parts influenced by the child's own

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maturity. The mastery of locomotor, non-locomotor, and manipulative movements is not only related to physical fitness, but also contributes to the development of students' cognitive functions, coordination, and self-confidence. According to Bao et al. (2024), the mastery of motor skills is related to the activation of several brain areas, such as the prefrontal cortex, cerebellum, and basal ganglia which play a role in motor control and cognitive function. This shows that motor training not only impacts movement abilities but also supports the development of brain function. This principle ensures that children's motor nerves continue to receive the stimulation needed to develop. Zhou and Tolmie (2024) state that gross motor skills contribute to the development of executive function so that motor development needs to be a concern in the learning of elementary school-aged children. Therefore, Physical Education, Sports, and Health (PJOK) learning needs to be designed to be able to provide active, meaningful learning experiences that are in accordance with the characteristics of students.

One group of students requiring adjusted learning services are students who show slow learner characteristics. Slow learner children are another term for students who are less responsive in the process of acquiring knowledge so that these students need a longer duration of time than other peers their age (Maliki, 2022). This group generally experiences obstacles in processing information, requires longer learning time, requires repetition of instructions, and more easily understands material through concrete and visual learning experiences. These conditions cause students to often experience difficulties following learning activities that demand quick responses, including in motor learning in PJOK subjects. According to Ainurramadhani et al. (2026), learning for slow learner students needs to be done through material repetition, the use of simple language, the utilization of concrete media, as well as the adjustment of tasks according to students' abilities.

The identification of slow learner students is generally done through an Intelligence Quotient (IQ) examination. Conceptually, slow learner children are often described as students who have intellectual abilities in the IQ range of around 70–89 and show a slower learning speed compared to their peers (Kaznowski, 2004; Borah, 2013). However, not all schools have access to psychological services or facilities for conducting IQ tests. Murdiyanto et al. (2023) explain that the identification of slow learners does not only depend on IQ test results, but can also be done through a combination of interviews with teachers, analysis of learning outcomes, observation of the learning process, and the administration of academic tests. Therefore, the identification of students in this study refers to the characteristics that appear during the learning process as well as information obtained from the classroom teacher as the party who best understands the students' learning development.

The results of initial observations in class IV of SDN 003 Karangan showed that students' gross motor skills were still not optimal. Most students experienced difficulties maintaining balance, were late in following instructions, went off track when doing zigzag running, and required repetition of instructions before being able to perform the requested movements. Besides being influenced by students' learning characteristics, this condition is also related to the learning process which is still dominated by verbal instructions without the support of visual media or learning models capable of increasing active student involvement. As explained by Mumpuniarti (2023), new information received by slow learner children tends to disappear quickly if it is not immediately practiced or repeated through a multisensory approach involving various senses simultaneously. Ngatman et al. (2025) explain that physical education teachers act as facilitators who adjust activities, difficulty levels, as well as provide clear visual instructions according to students' abilities.

The Team Games Tournament (TGT) cooperative learning model is one alternative that has the potential to overcome these problems. TGT is a tournament or game learning model held in the classroom to spur students in carrying out learning (Agustryani et al., 2020). This model emphasizes learning activities through group collaboration, games, healthy competition, and the provision of awards so as to increase learning motivation and student

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participation. According to Slavin (2015), there are five main components in the TGT model that can be adapted in gross motor learning, namely class presentation, teams, games, tournament, and team recognition.

The TGT model is expected to be more optimal if combined with flashcard media that present visual movement examples, making it easier for students to understand instructions and practice movements gradually. Flashcard media are simple media useful for displaying text and descriptions designed with attractive colors (Wahyuni, 2020). According to Nurmulkiah and Chamidah (2025), learning becomes more meaningful when the material is related to objects known to students in everyday life so that concepts that were originally abstract can be understood more concretely.

Previous research has shown that the TGT model is effective in improving students' learning outcomes, motivation, and social skills. However, research integrating the TGT model with flashcard media to improve the gross motor skills of students showing slow learner characteristics is still limited. Therefore, this study aims to determine the implementation of the Team Games Tournament cooperative learning model assisted by flashcard media in improving the gross motor skills of fourth-grade students at SDN 003 Karangan. The novelty of the research lies in the integration of a game-based cooperative learning model with visual media as a PJOK learning strategy tailored to students' learning characteristics. Furthermore, this research also uses Vygotsky's constructivism learning theory, which emphasizes that the learning process occurs optimally through social interaction. In the context of slow learner students, the use of the Team Games Tournament (TGT) model facilitates the creation of a Zone of Proximal Development (ZPD), where students can overcome their motor barriers through peer tutoring in heterogeneous groups.

Based on this description, this study aims to improve gross motor skills through the implementation of the Team Games Tournament cooperative learning model assisted by flashcard media for slow learner students in class IV of SDN 003 Karangan. Theoretically, the research is expected to contribute to the development of educational science, specifically related to inclusive learning strategies for slow learners through gamification and cooperative approaches. Practically, the results are expected to provide a more active learning experience to support the improvement of students' gross motor skills as an alternative PJOK learning model for students showing slow learner characteristics.

METHOD

This research uses a Classroom Action Research (CAR) approach with the Kemmis and McTaggart (2010) model which is carried out through two cycles. Each cycle consists of four stages, namely planning, action, observation, and reflection. Cycle II is carried out as a follow-up to the reflection results in cycle I to improve learning deficiencies so that the research success indicators can be achieved.

The research was conducted at SDN 003 Karangan, East Kutai Regency, East Kalimantan in the even semester of the 2025/2026 academic year. The research subjects were six fourth-grade students who showed slow learner characteristics based on the classroom teacher's observation results, analysis of learning outcomes, as well as learning characteristics that appeared during the learning process. These characteristics include being slow in understanding instructions, requiring repetition of material, and experiencing difficulties following motor activities according to the teacher's directions.

The research action took the form of implementing the Team Games Tournament (TGT) cooperative learning model assisted by flashcard media in Physical Education, Sports, and Health (PJOK) learning. The implementation of the action followed the five main TGT syntaxes, namely class presentation, teams, games, tournament, and team recognition. In each syntax, flashcards were used as visual media to help students understand, remember, and practice gross motor movements gradually. Learning activities were focused on developing locomotor, non-locomotor, and manipulative movement skills through cooperative activities involving games and inter-group competitions.

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Table 1 Description of Learning Activities and Flashcard Functions

Syntax	Teacher Activity	Student Activity	Flashcard Function
Class Presentation	Providing an explanation about the gross motor skills to be performed and showing the Flashcard	Paying attention to the teacher's explanation and carefully observing the flashcard shown	Visual media
Teams	Dividing students into groups, explaining rules, and distributing flashcards	Observing the flashcards, discussing and practicing the movements	Discussion and practice media within groups
Games	Preparing games, explaining game rules, providing opportunities to perform movements	Following the game in turns, performing movements according to the flashcard images, and giving support to teammates	Game cards
Tournament	Guiding the course of the tournament, giving scores, observing student abilities according to the gross motor skill assessment criteria	Following the tournament according to the rules, demonstrating movements confidently, and striving to get the best score	Competition evaluation media
Team Recognition	Calculating the score of each team, announcing the best team, giving appreciation to all students	Listening to the tournament results, accepting the tournament results sportingly, giving appreciation to other teams	Reflection media

Research data were collected through observation and performance tests. Observations were used to obtain information regarding the implementation of learning as well as teacher and student activities during the action. Performance tests were used to measure students' gross motor skills in non-locomotor, locomotor, and manipulative aspects. The research instruments went through an expert validation process before being used in data collection.

Data analysis was carried out descriptively and quantitatively by comparing the results of the gross motor skills test in the initial condition, cycle I, and cycle II. Observation results were analyzed descriptively to describe changes in learning activities during the action. The success of the research was determined based on individual achievement and classical mastery. Each slow learner student is said to have achieved mastery if they reach a percentage of ≥61% or achieve the "Good" criteria on the gross motor assessment instrument based on Arikunto's (2013) rating scale, while classically, this research is declared successful if ≥ 70% of the total number of fourth-grade slow learner students at SDN 003 Karangan have achieved the "Good" criteria (average achievement percentage ≥ 61%) which is based on the standards set by the school.

RESULTS AND DISCUSSION

Student Observation Results.

In cycle I, slow learner students still experienced difficulties focusing their attention when the teacher explained so they did not understand the tournament flow well. Nevertheless, students began to show attention towards

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the use of flashcard media. In cycle II, students' attention and understanding of the game rules increased. Students were able to follow the tournament according to procedures and showed higher enthusiasm and active participation during learning.

Teacher Observation Results.

In cycle I, the implementation of learning was not yet optimal, especially in providing motivation, movement demonstration, delivery of tournament instructions, classroom management, and equal distribution of attention to students. In cycle II, the teacher successfully improved these aspects through the provision of motivation, clearer demonstrations, easier-to-understand instructions, optimization of flashcard use, as well as more effective classroom management and student assistance.

Improvement of Gross Motor Skills

The implementation of the Team Games Tournament (TGT) cooperative learning model assisted by flashcard media showed an improvement in the gross motor skills of students showing slow learner characteristics in each action cycle. Before the action was given, most students were not able to perform locomotor, non-locomotor, and manipulative movements according to the established indicators. Initial test results showed only two out of six students reached the fair category, while the other four students were still in the poor and very poor categories. This condition indicates that students' gross motor skills still required learning interventions that were more suited to their learning characteristics.

Table 2 Recapitulation of Pre-action Gross Motor Skills Percentage

No.	Initials	Non-Locomotor	Locomotor	Manipulative	Average	Criteria
1.	Student 1	40.00%	50.00%	33.33%	41.11%	Fair
2.	Student 2	40.00%	50.00%	33.33%	41.11%	Fair
3.	Student 3	40.00%	33.33%	33.33%	35.55%	Poor
4.	Student 4	40.00%	33.33%	33.33%	35.55%	Poor
5.	Student 5	20.00%	16.67%	33.33%	23.33%	Poor
6.	Student 6	20.00%	16.67%	16.67%	17.78%	Very Poor

The implementation of the action in Cycle I began with the application of the five Team Games Tournament model syntaxes, namely class presentation, teams, games, tournament, and team recognition. The teacher utilized flashcards as visual media to demonstrate the movement stages so that students gained a more concrete picture before practicing. During the learning process, students began to show increased participation in group activities, although some still required the teacher's help when maintaining balance, following the zigzag running track, or coordinating ball throwing and catching movements.

Table 3 Recapitulation of Cycle I Gross Motor Skills Percentage

No.	Initials	Non-Locomotor	Locomotor	Manipulative	Average	Criteria
1.	Student 1	80.00%	66.67%	50.00%	65.56%	Good
2.	Student 2	80.00%	66.67%	50.00%	65.56%	Good
3.	Student 3	80.00%	50.00%	66.67%	65.56%	Good
4.	Student 4	60.00%	50.00%	50.00%	53.33%	Fair
5.	Student 5	60.00%	33.33%	50.00%	47.78%	Fair
6.	Student 6	40.00%	33.33%	33.33%	35.56%	Poor

The evaluation results in Cycle I showed an improvement in gross motor skills compared to the initial condition. The students' average ability increased, but only two students had reached the "Good" criteria, meaning the classical mastery had only reached 50.00%, which indicated that the research success indicator had not been fulfilled.

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Reflection on the implementation of the action showed that some students still needed clearer movement examples, more repetitive practice, and assistance during game and tournament activities. This condition became the basis for improving the action in Cycle II.

Learning improvement in Cycle II was carried out by providing more detailed explanations and demonstrations, modifying the flashcards, increasing the opportunities for group practice, and increasing the intensity of assistance during games and tournament activities. This strategy made it easier for students to understand the movement sequence and be more confident when performing motor activities independently. The learning activities became more conducive because students helped each other in groups and showed higher enthusiasm compared to the previous cycle.

Table 4 Recapitulation of Cycle II Gross Motor Skills Percentage

No.	Initials	Non-Locomotor	Locomotor	Manipulative	Average	Criteria
1.	Student 1	80.00%	83.33%	66.67%	76.67%	Good
2.	Student 2	80.00%	83.33%	66.67%	76.67%	Good
3.	Student 3	80.00%	66.67%	83.33%	76.67%	Good
4.	Student 4	80.00%	66.67%	66.67%	71.11%	Good
5.	Student 5	80.00%	50.00%	66.67%	65.56%	Good
6.	Student 6	60.00%	50.00%	66.67%	58.89%	Fair

The Cycle II evaluation results demonstrated a more optimal improvement in gross motor skills. The students' average score increased by 16.30% compared to Cycle I, while the number of students who achieved the "Good" criteria increased to 5 students, so that the classical mastery increased from 50.00% in Cycle I to 83.33% in Cycle II, meaning it had exceeded the research success indicator of ≥70%. This improvement indicates that the application of the Team Games Tournament model assisted by flashcards was able to gradually improve the gross motor skills of slow learner students through cooperative, fun learning activities that suited the students' learning characteristics.

Table 5 Recapitulation of the Gross Motor Skills Percentage Increase Between Cycles

No.	Initials	Cycle I	Cycle II	Increase
1.	Student 1	65.56%	76.67%	11.11%
2.	Student 2	65.56%	76.67%	11.11%
3.	Student 3	60.00%	76.67%	16.67%
4.	Student 4	53.33%	71.11%	17.78%
5.	Student 5	47.78%	65.56%	17.78%
6.	Student 6	35.56%	58.89%	23.33%
	Average			16.30%

The research results indicate that the Team Games Tournament cooperative learning model combined with flashcard media was able to improve the gross motor skills of students showing slow learner characteristics. This improvement was not only reflected in the performance test results but was also seen during the learning process through the students' increased participation in group activities, their courage to join the games, and their ability to perform movements more independently. These findings show that learning combining physical activity, social interaction, and visual stimuli is able to reduce students' difficulties in understanding movement instructions.

The success of the action was influenced by the characteristics of the Team Games Tournament model which places students as active subjects in the learning process. Through the teams activities, students gained the opportunity to learn with peers, creating a process of helping each other when experiencing difficulties performing movements. Furthermore, the games and tournament stages provided a fun learning experience while increasing students'

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motivation to repeat movements without feeling burdened. Providing awards at the end of learning also served as positive reinforcement that encouraged students to participate more actively in every activity.

The use of flashcards made an important contribution to the improvement of gross motor skills. The visual media helped students build movement representations before practicing, thus reducing reliance on the teacher's verbal instructions. For students showing slow learner characteristics, presenting information visually is easier to understand because it can be observed repeatedly during the learning process. This condition supports students in remembering movement sequences, improving body coordination, and reducing errors when performing motor activities.

These research findings are in line with various previous studies showing that the Team Games Tournament model can increase student involvement in learning through group collaboration and educational games. In addition, the results of this study also strengthen the view that the use of visual media can make it easier for students who experience learning barriers to understand instructions that are abstract in nature. The integration of these two components produces a more concrete and interactive learning experience suited to the characteristics of students who require gradual and repetitive learning.

The results of this study align with the social constructivism theory proposed by Vygotsky, which states that the learning process takes place optimally through social interaction with teachers and peers. In this study, this interaction appeared when students discussed, gave movement examples to each other, provided assistance to group mates, and received guidance from the teacher during the learning process. The teacher provided scaffolding through movement demonstrations, the use of flashcards, giving feedback, and assistance during practice, while peers provided support through cooperation in groups. This assistance enabled students to perform movements they were previously unable to do independently. As the action was implemented in each cycle, the assistance provided gradually decreased because students began to understand and were able to perform movements better. This condition demonstrates the development of students' abilities according to the concept proposed by Vygotsky.

Overall, the average score increase of 16.30% and classical mastery of 83.33% indicate that the implementation of the Team Games Tournament cooperative learning model assisted by flashcard media can improve the gross motor skills of fourth-grade slow learner students at SDN 003 Karangan. These findings also show that the combination of cooperative learning models and visual media can be an alternative PJOK learning strategy in inclusive elementary schools.

CONCLUSION

The implementation of the Team Games Tournament (TGT) cooperative learning model assisted by flashcard media can improve the gross motor skills of students showing slow learner characteristics in class IV of SDN 003 Karangan. This improvement was seen in the locomotor, non-locomotor, and manipulative movement aspects which developed gradually during the two cycles of action. The implementation of learning through the five TGT syntaxes (class presentation, teams, games, tournament, and team recognition) provided opportunities for students to learn collaboratively, actively, and pleasantly. The use of flashcards as visual media helped students understand movement instructions more easily, increased concentration, and reduced reliance on the teacher's verbal directions.

The research results showed that the students' average gross motor skills increased by 16.30%, while the classical mastery increased from 50.00% in Cycle I to 83.33% in Cycle II, meaning it had exceeded the established research success indicator. Thus, the Team Games Tournament cooperative learning model assisted by flashcard media can be used as an alternative PJOK learning strategy to improve the gross motor skills of students showing slow learner characteristics, particularly in elementary schools implementing inclusive education services.

PJOK teachers are advised to consistently integrate visual media such as flashcards in conveying physical activity instructions. This learning model and media are proven to be very helpful in bridging the limitations of verbal

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information processing in slow learner students. Schools also need to facilitate the procurement of varied teaching aids and learning media, especially those supporting gross and fine motor stimulation for students with special needs in inclusive classes. Future researchers are advised to develop variations of visual media and learning games to improve other developmental aspects, such as social skills, fine motor coordination, or physical fitness of students.

The research results provide practical implications, namely strengthening the social constructivism learning theory, where interaction through group games (Team Games Tournament) can be a good support for the motor development of children with learning barriers (slow learners). In addition, the use of visual media (flashcards) is proven to be a connecting bridge for the verbal information processing limitations in slow learner students. This research also provides practical implications for PJOK teachers that the Team Games Tournament cooperative learning model assisted by flashcards can be used as an alternative learning strategy for PJOK teachers in inclusive schools. The success of this research illustrates that motor activities do not have to be done monotonously, but can be packaged in the form of tournaments. Besides improving learning outcomes, this model also creates a more interactive learning atmosphere through group collaboration, games, and the provision of awards, so that it matches the learning needs of students in inclusive classes. For schools, the results of this research can be used as an additional reference in developing learning that is friendlier to the needs of slow learner students. The results of this study can also be used as a reference in formulating more inclusive PJOK learning programs so that all students get equal opportunities to maximize their gross motor skills according to their respective potentials.

The limitations of this study relate to the research subjects and the generalization of results. This research only focused on slow learner students in class IV of SDN 003 Karangan with a very limited sample size of only six students, so the gross motor skills found in this research cannot be broadly generalized to the entire population of slow learner children in other schools or regions. The limitation also lies in the fact that this is not a diagnostic study. The researcher used operational terms based on the subjects' characteristics found in the field which serve as the school's basis for providing learning services. The researcher realizes that determining a slow learner diagnosis ideally requires psychological assessment, thus making it one of the limitations.

REFERENCES

Agustryani, R., Herliana, M.N., & Soraya, N. (2020). *Pengaruh model team game tournament (TGT) terhadap peningkatan responsibility siswa dalam pembelajaran penjas kelas VIII SMP Negeri 4 Kota Tasikmalaya*. Jendela Olahraga, 5(1), 30–34. https://doi.org/10.26877/jo.v5i1.5225

Ainurramadhani, I. E., Asrulloh, A. F., Setyowati, M., Rohmah, S. K., & Harsiwi, N. E. (2026). Peran guru kelas dalam menangani hambatan belajar siswa *slow learner* pada kelas inklusif tanpa guru pendamping khusus di sekolah dasar. *JURNAL PENDIDIKAN IPS, 16*(3), 255–262. https://doi.org/10.37630/jpi.v16i3.4412

Amorim, N., Marques, A., & Santos, S. (2024). Beyond the Classroom: Investigating the Relationship between Psychomotor Development and Academic Achievement in 4–12-Year-Olds. *Children*, *11*(8), 973. https://doi.org/10.3390/children11080973

Arikunto, S. 2013. *Prosedur penelitian: Suatu pendekatan praktik*. Jakarta: Rineka Cipta.

Bao, R., Wade, L., Leahy, A.A. *et al.* Associations Between Motor Competence and Executive Functions in Children and Adolescents: A Systematic Review and Meta-analysis. *Sports Med* 54, 2141–2156 (2024). https://doi.org/10.1007/s40279-024-02040-1

Borah, R. R. (2013). Slow learners: Role of teachers and guardians in honing their hidden skills. *International Journal of Educational Planning & Administration*, 3(2), 139-143.

Sosioedukasi
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Volume 15 No. 3. September 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

Kaznowski, K. (2004). Slow learners: Are educators leaving them behind? NASSP Bulletin, 88(641), 31-45. https://doi.org/10.1177/019263650408864103

Kemmis & Mc. Taggart. 2010. *The Action Research Planner*. Geelong. Deaken Univercity Press.

Maliki. (2022). Strategi Mengajar Siswa Lambat Belajar. *Jurnal Pendidikan Inklusif*, 3(2), 90-97

Mumpuniarti, dkk. *Diferensiasi pembelajaran*. Yogyakarta: UNY Press, 2023.

Mursidi, A., (2026). Digitalization as an Educational Strategy for Local Cultural Preservation: A Study on the Role of Digital Platforms in Shaping the Cultural Literacy of the Younger Generation. International Journal of Special Education. Vol 41. (4S) 740-754.

Murdiyanto, T., Wijayanti, D. A., & Sovia, A. (2023). Identify slow learners in math: Case study in rural schools. *International Journal of Interactive Mobile Technologies* (iJIM), 17(6), 45–60. https://doi.org/10.3991/ijim.v17i06.36903

Ngatman, N., Sugiyanto, S., Nevitaningrum, N., Danangjaya, D., & Solikhin, M. N. (2025). Development of gross motor skills and nutrition literacy among inclusive junior high school students. *Pedagogy of Physical Culture and Sports*, *29*(5), 482–498. https://doi.org/10.15561/26649837.2025.0510

Nurmulkiah, F., & Chamidah, A. N. (2025). Enhancing Number Recognition Through Contextual Learning: A Classroom Action Research with Slow Learner Children in Kindergarten. *Journal of Innovation and Research in Primary Education*, *4*(3), 1826–1837. https://doi.org/10.56916/jirpe.v4i3.1752

Slavin, R. E. (2015). *Cooperative learning: Theory, research and practice*. London: Routledge.

Wang, L., & Wang, L. (2024). Relationships between Motor Skills and Academic Achievement in School-Aged Children and Adolescents: A Systematic Review. *Children*, *11*(3), 336. https://doi.org/10.3390/children11030336

Zhou, Y., & Tolmie, A. (2024). Associations between Gross and Fine Motor Skills, Physical Activity, Executive Function, and Academic Achievement: Longitudinal Findings from the UK Millennium Cohort Study. *Brain Sciences*, *14*(2), 121. https://doi.org/10.3390/brainsci14020121