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The effectiveness of ‘‘Multimove’’: A fundamental motor skill intervention for typically developing young children



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Introduction The decline in the quality of motor skills of young children has been observed in recent [1]. These findings underline the need for motor skill interventions in early childhood settings. This study examines the influence of ‘‘Multimove’’, a motor skill programme that strongly appeals to variation rather than sport-specific content, in 5- to 6-year-old children.

Methods The intervention group ($n=321$; 162 ♂ and 159 ♀; mean age = 5.93; SD = 0.58) received a weekly 45- to 75-min motor skill session over a period of 30 weeks, in addition to the regular physical education curriculum. The control group ($n=166$; 83 ♂ and 83 ♀; mean age = 5.97; SD = 0.57) did not participate in the program. Measures of the locomotor and object control skill, were assessed in a pre-post design by means of the Test of Gross Motor Development 2nd edition (TGMD-2). Likewise, measures of gross motor coordination were taken on both occasions using the Körperkoordinations Test für Kinder (KTK).

Results Preliminary analysis yielded a significant Group \times Time interaction for the locomotor ($F=19.987$; $P<0.001$) and object control ($F=13.958$; $P<0.001$) scales. The intervention group revealed significantly higher locomotor and object control scores at the post-test than at pre-test whereas the control group only improved in object control skill over time. However, no significant Group \times Time interaction was found for gross motor coordination measured with the KTK ($F=2.318$; $P=0.129$). Further analysis (age-groups, standard scores and retention-test data) will be presented at the conference.

Conclusion Preliminary findings show that the Multimove program has a positive effect on the fundamental motor skills of typically developing children, but does not seem to improve the gross motor coordination measured with a general test instrument like the KTK in this age group.

Disclosure of interest The authors have not supplied their declaration of conflict of interest.

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S5-8

L’équimotricité[®] : bases théoriques, principes d’action et constats informels



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Introduction L’évolution actuelle de la société amène une dégradation du niveau de développement moteur et de condition

physique des enfants. Ceci justifie l’attention consacrée à ces thématiques par un nombre croissant de chercheurs et la multiplication des organismes destinés à offrir aux plus jeunes des opportunités de pratiques appropriées. Une part importante de ces initiatives repose sur les principes de la psychomotricité appliqués généralement dans les activités proposées en salle et dans les écoles maternelles [1].

Expérience Souhaitant associer les bienfaits du contact entre l’enfant et le poney [2], nous avons contribué à développer une approche originale permettant aux enfants d’effectuer une grande variété de tâches psychomotrices. Elle a été décrite récemment par Saublens [3]. L’objectif de cette présentation consiste à en rappeler les fondements théoriques, à en préciser les principes fondamentaux ainsi qu’à décrire les effets relevés chez les enfants à partir d’observations de terrain, réalisées depuis plusieurs années. Âgés de 3 à 7 ans, les enfants participent à des séances hebdomadaires d’une heure, pendant des cycles de 3 à 10 mois. Par groupe de deux, ils se partagent un poney en s’échangeant régulièrement les fonctions de meneur (chargé de guider le poney) et de cavalier. Tous deux sont invités à réaliser différentes tâches motrices en se déplaçant sur des parcours de 3 à 5 minutes. Les tâches sont organisées sous différentes formes qui exploitent l’imaginaire (histoire) et stimulent les interactions entre les enfants et avec le poney.

Analyse critique L’expérience montre que les enfants améliorent rapidement leurs habiletés motrices fondamentales, qu’ils progressent au niveau de leurs relations avec leurs pairs et qu’ils prennent de l’assurance et se montrent plus épanouis. Au-delà des commentaires convaincus des parents, ce sont les sourires des enfants qui persuadent du bien-fondé de cette activité. Étant actuellement confinée essentiellement dans des activités extrascolaires, celle-ci est sporadiquement exploitée à l’école maternelle.

Conclusions L’équimotricité présente de grandes opportunités de développement des enfants et devrait faire l’objet d’analyses plus systématiques.

Mots clés Enfant ; Poney ; Motricité

Déclaration d’intérêts Les auteurs n’ont pas transmis de déclarations de conflits d’intérêts.

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S5-9

Difficult motor skill acquisition in 5 years old children can be modulated by educators



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Introduction Expansion of affordances and acquisition of new possibilities for action depend on motor learning and development. Adolph considers affordances as continuous, probabilistic functions, representing an individual’s likelihood of successful performance, across environmental increments. With this study we addressed the question of how the relation between educator and child in a difficult motor task, involving a process of expanding affordances, contributes to the acquisition of new possibilities for action [1,2,3].

Methods Sixty children 5 years old from 2 kindergartens in Treviso (Italy) were studied while performing structured and unstructured

physical activity during one hour lessons at a common playground; frequency of lessons was 1/week and the total period of observation was for three months. Children of group A could rely on a teacher to get on a very difficult tool, a bar supported by two mobile springs; the teacher told them that they could jump down if they lost the balance or were scared of walking the bar. After the jump, they were encouraged to go up again at the same point of the bar. Children of group B received no help and were left alone to find out the best strategy to accomplish the task. Time and number of errors were measured and children were video recorded.

Results At the beginning no children were able to climb on the bar. At the end of the 10 lessons, 20% only of the children of group B were able to climb on the bar by themselves, and none was able to walk. In group A, 80% of the children climbed on the bar by themselves, 17% requested help and three % could not climb. During free play, only children of group A used the spring bar.

Conclusions The data indicate that teacher-mediated experiences promote child expansion of body scale and affordances. The data also suggest that successful experiences encourage autonomous child training thus further expanding perception of motor skill competence.

Keywords Playground; Affordance; Motor development

Disclosure of interest The authors have not supplied their declaration of conflict of interest.

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S5-10

Exploring the effects and specificity of playground activities on motor skills in 5 years old children



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Introduction Levels of motor competence influence amount, intensity and level of physical activity performed by children. In turn, motor competence is built up on acquisition of both gross and fine motor skills. With this study we investigated in 110 five years old children the effects on motor skills of 10 sessions of outdoor motor activities played in the “Primo Sport 0246” playground (Treviso, Italy) where equipment and their distribution are controlled.

Methods One hundred and ten children 5 years old from 4 kindergartens in Treviso, Italy were studied. Of these, 71 (experimental group) played once a week for 10 consecutive weeks (March to May) in the “Primo Sport 0246” playground. Activities were organized as 30 minutes of free play and 30 minutes of controlled structured activities; the tools available to the children (monkey bars, hanging bar, climbing a net, climbing a rope, a rope ladder, gymnastic rings, balance tools) were aimed at training gross motor skills. The control group did not attend the playground. All 110 children were analyzed before and at the end of the 10-session period with sets of procedures aimed at measuring gross and fine motor skills [1–3].

Results Analysis of pre and post-training tests showed significant differences in the experimental but not in the control group in four gross motor tasks (one-leg balance-left foot, balance on beam, balance of platform, and putting a medicine ball). No significant differences were found in fine motor tasks.

Conclusions The data indicate that a (relatively limited) experience at the “Primo Sport 0246” playground positively stimulates improvements of gross motor skills but not fine motor skills. As the program in the playground was mainly focusing on training gross motor skills the results may demonstrate that increasing performance within fine motor skills may be regarded as specific.

Keywords Playground; Gross motor skills; Preschool children

Disclosure of interest The authors have not supplied their declaration of conflict of interest.

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