

Preschool Physical Routines to Promote School Readiness

Materials Produced are available by request

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Participating teachers

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Project Description

Following several years of informal discussion and informal observation of Preschool and Cycle One students, the P.E. and Resource teacher investigated the connection between physical skills and classroom readiness. Professional reading lead to a greater understanding of how gross motor actions affect brain development and help students meet the physical and intellectual demands of the Cycle One classroom, as well as how the delayed development of physical skills can affect such things as fine motor skills, speech, attention and concentration, motor planning, visual perception and processing, and can create sensory-seeking behaviours.

Through professional reading and discussions with the Eastern Townships School Board Occupational Therapists, screening tools and remediation activities, as well as parent information letters, were created and implemented. We believe that the work done this year will allow us to better identify and remediate students with gross motor difficulties, and refer them to the school-based Occupational Therapist if needed.

Though we were not able to complete our remediation as planned due to the COVID shutdown, we are ready to apply the tools created this year in the Fall, and to share what we learned with the Preschool team in order to develop a common understanding of the foundational nature of gross motor development so that our school team can make it a priority.

Project Goals

The goals of the project were threefold:

-To identify areas in which students may struggle

In the initial stages of the project reviewed documents from the ETSB Occupational Therapist and connected the content of these documents to the MEES Preschool

Education program. We spent time looking for connections between the MEES documents and professional resources we found and established that as the MEES documents combine fine and gross motor learning, we would need to look deeper into other resources to define what gross motor abilities we want to investigate and how these foundational skills lead to increased classroom readiness.

Competency 1 of the Preschool Education Program is "To perform sensorimotor actions effectively in different contexts," and since there are a limited number of criteria selected for evaluation, observation of our school population leads us to believe that there are other, foundational skills that might be missing from this document.

Using the LEARN Quebec document "Helping Students Who Have Special Needs or are At-Risk in Kindergarten: A Teacher's Toolkit" (<https://www.learnquebec.ca/special-needs-in-k>) we were able to further define some of the skills and abilities that need to be observed and taught to students in the pre-k and kindergarten classes, and the toolkit provides a framework for observing students and identifying possible strategies for remediation, but this tool is less suited to whole class evaluations.

This led us to a review of the RSEQ "Myg et Gym: En forme au primaire" program for preschool (<http://rseq.ca/viesaine/iso-actif/en-forme-au-primaire/>), already being used by Martin (our Physical Education Specialist and project participant). From his standpoint, it was deemed to be the best tool available which allows us to move beyond observation and into data that is normed: more than 3 000 Quebec students were involved in the process of establishing quintile achievement levels based on age and gender. We choose this tool to remove subjectivity from our observations, and combine it with documents produced by the ETSB Occupational Therapist to create a tool to determine a baseline of functional skills that could be reused later in the school year.

Building from the documents listed above, we developed an evaluation tool to measure the students' current level of functioning in a way which would allow us to know if there were gains over the school year. This tool reflects our priorities for overall development.

This tool, produced as single page spreadsheets for K4 and K5, allows us to collect data easily in the gymnasium or the classroom

-To construct class routines

After much professional reading and discussion, we created a document which classroom teachers can use as a ready-reference to implement varied routines in class, divided into three sections: Balance, Coordination, and Strength and Stamina.

-To provide support and remediation

During the project we spend a great deal of time discussing the best way to correct and remediate ineffective gross motor actions and determined that for our purposes we needed a multilayered approach:

Exercises: in which the action is broken down for the student into micromovements, and is corrected by the teacher (such as picking up a beanbag with feet while lying down, or using alternating feet to descend stairs)

Activities: in which the student is given opportunity to repeat the motion with a goal (such as hitting a target or jumping over a line)

Games: in which students have to use multiple movements to execute a series of tasks with a goal and a time limit (such as Hungry Hippos)

As supporting documents we created a Preschool Phys Ed Planning template, and began to develop a list of games which worked the various skills we had identified as fragile in our student cohort. We had planned to make videos and take photos of these games, but the school closure prevented us from doing so.

The P.E. Teacher evaluated students using our screening tool and was able, during term 2, to do some remediation by pulling students out of the regular kindergarten classroom for small group instruction. We were encouraged by early results, but the COVID Shutdown put an end to our ability to continue this aspect of the project.

Unable to continue as planned, we used what we had learned to support our students learning at home. During the closure, we contributed to a new school website aimed to provide at-home learning activities to families, making sure that physical activity and routines remained accessible to students in different living circumstances. These included websites with motor activities and videos what students and their families can move to. <https://sites.google.com/edu.etsb.qc.ca/des/home>

As part of the distribution of the MEES learning kits, we made sure that students at all levels had access to physical education activities, and the Physical Education Teacher

participated in class video conferences to reinforce the message that movement was good for the body and for the brain.

We took time in May to transform the Gross Motor Routines that had been created pre-Covid into classroom movement routines which could be done while respecting the physical distancing guidelines. This document was shared with the preschool teachers, two of whom are experienced teachers and two of whom are new to teaching and were hired post-closure. These routines are being implemented multiple times a day, with limited materials and using the space around the students' desks. So far, the routines are appreciated by staff, add movement breaks to the day of the students, and allow for practice of routines for balance, coordination, and strength and stamina.

The following elements of the project are not completed due to the circumstances:

- completing a list of games for preschool P.E. classes that develop the targeted skills (including photos and videos, intended to be shared with teachers)
- completing an explicative document detailing the connection between motor skills and classroom readiness.

Project Outcomes

As teachers involved in this project (Resource Teacher and Phys. Ed Teacher), we have a better understanding of the many ways in which physical activities promote classroom readiness. In early stages of the project, the volume of information available and the many areas to develop was overwhelming, and neither of us was fully prepared for the depth and complexity of the subject matter. We wanted to understand, as fully as possible, the different aspects of physical development of young children, and the vestibular and proprioceptive inputs necessary for children to develop optimally. We were fortunate to have the support of the ETSB Occupational Therapists (Nadia Gagnon-Houle and Rachel Lassemba) to provide us with research and articles. As this topic relates to both our teaching tasks in specific ways, we wanted to understand as much as we could about this topic as the implications for the physical and academic development of the student are significant.

Over the course of the project, the teachers involved:

- developed a greater understanding of the developmental milestones of K4 K5 students
- developed a better understanding of how physical development prepares the brain for academic learning
- developed greater instructional agility for classroom-based and gymnasium based activities

-reflected on our professional practice to determine how we can bring what we learned to our school team to benefit students

We are optimistic that the following elements of the project that were produced this year can be implemented at the start of next school year:

-Gross Motor Screening tools for K4 and K5 allow us to have a snapshot of skills and identify who needs additional support

-Parent communication Letters for K4 and K5 parents have been prepared to provide information on their child's progress. Titled "Gross Motor Early Intervention" these letters will go to parents in January and June, at the same time parents receive information about their child's progress.

<https://drive.google.com/file/d/1h7oSvWT60gw46ZC3Y6AjDoYLbP17xAtQ/view?usp=sharing>

<https://drive.google.com/file/d/1hPGKS43BkG7WmHv1T1B3T8fWIKrXyaAf/view?usp=sharing>

-Information for possible referrals to professionals can be taken from the screening tools and provide a basis for collecting information on student abilities, and may help identify students who need a follow-up with the ETSB Occupational Therapist.

Reinvestment

Our reading leads us to believe that this area is one which all teachers should seek to better understand, and that the Preschool Program should place a greater emphasis on gross motor skills as prerequisites for Cycle One classroom readiness.

As our understanding of these skills as crucial to academic success, one aspect of the project we struggled with was the seeming lack of teacher-friendly tools to explain the specific skills that must be developed and the activities and exercises which fulfill that purpose. Even the RSEQ program, which seeks to identify students with challenges, provides neither information on how these skills are fundamental to classroom success nor ways in which to address the needs identified. Teacher materials are often vague and have little explanation or research given to support recommendations, given the impression that, as one colleague expressed to us, "any movement is good." This may

falsely lead teachers to repeat activities that students find easy instead of making these progressively harder, and to avoid activities that are more challenging, rather than offer a wider and more varied menu of movement, and to insist on repeating exercises that children cannot do.

When discussing our project with colleagues as parents as it developed, we found that though there was openness to adding gross motor routines, there was some resistance to giving them priority. Sharing research was helpful. For example, “The Handwriting Book” written by a team of pediatric Occupational Therapists includes a list of Fine Motor activities for handwriting, the majority of which do not involve holding a pencil! <http://www.functionalskillsforkids.com/p/thehandwritingbook.html>

We began, and hope to continue, to develop teacher-friendly information about gross motor skills that we can share with our school team in August.

We are also concerned that though this is a critical stage of physical development, anecdotal information leads us to believe that preschool P.E. is often a course which is reassigned to staff without a background in Physical Education. If a trained P.E. specialist is not available, Phys. Ed classes may consist of games more than exercises designed to build foundational skills. We believe that it would be extremely beneficial to have an accessible repertoire of preschool games for teachers to use in P.E. classes, and that these should be accompanied by documents explaining the value and importance of the subskills, and with tools to guide observations of student skills and progress. We believe that this is an area which other teacher teams could add to this project, and one which we hope to continue to explore in our professional practice.

In short, preschool Physical Education is not understood as fundamental to the academic development of students, and needs to be put front and center in the preschool day.

Selected bibliography:

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