

Involvement of PE teachers in motor testing. A pilot study with the MOBAK-1

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Introduction

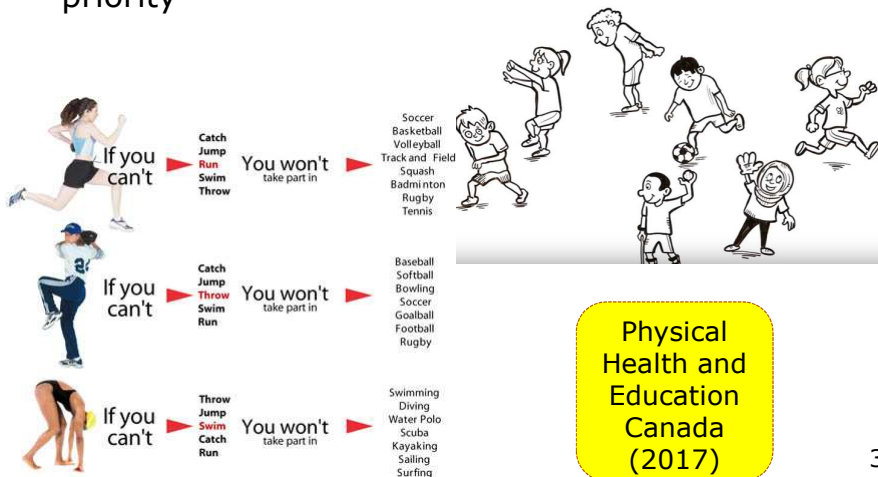
- Fundamental motor patterns are prerequisites to specific motor/sports skills and a determinant of the involvement in physical activity
- If children fail to develop their motor skills prior to the growth spurt in puberty, they will have limited ability to develop sport-specific skills at older ages and stages of training and development
- Obviously, this will significantly impact their desire to continue in lifelong PA and limit their opportunities to develop as an athlete

Clarck & Metcalfe (2002)

Sport for Life Society (2016)

Introduction

- Nowadays, physical literacy is recognized as a priority



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Evaluating children's physical and motor competencies

- Motor assessment
 - Follow-up of the children development
 - Identification of potential delays



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Evaluating children's physical and motor competencies

- At school, tests are often used for educational and/or research purposes
 - Identifying the teaching goals
 - Determining teaching effectiveness
 - Assessing !!!!
 - Comparing children's development
 - Measuring effects of a programme



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Motor assessment in school settings

- Several test batteries have been developed in order to measure motor development of young children
 - M-ABC, KTK, TGMD ...
 - Based on the assessment of performances
- Evaluation of the motor competencies

Herremann & Seelig (2014)



MOBAK - 1
Basic motor competencies in first grade



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	M-ABC	KTK	TGMD	BOTMP	CEReKi	MOBAK-1
Simplicity	x	x	x		x	x
Rapidity	x	x	x		?	x
Specificity	+/-	x	?	+/-	?	?
Needed space	x	x			x	?
School validity						?
Gross motor skills	x	x	x	x	x	x
Locomotion tests			x		x	x
Objects movements	x		x		x	x
Balance	x	x		x	x	x
Fine motor skills	x			x		
Perceptive skills	+/-				x	
Impairment identification	x	x		x		
Quantitatif	x	x	x	x	x	x
Qualitatif	x		x		x	x

Purpose of the presentation

- Determine how the PE teachers organize the MOBAK-1 tests
- Identify potential improvements



Methods

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- 7 primary school PE teachers were trained to use the MOBAK-1 tests in their classes (Liege's area)
 - Description of the tests with video examples of the expected movements and common errors
 - Analysis of the reliability of the teachers evaluating pupils' performances showed on video

PE	Gender	Age (y)	Teaching exp. (y)	1 st grade (n)	2 ^d grade (n)	Primary schools
T1	M	26	4	6	9	Dpt of educ.
T2	F	39	17	16	10	Dpt of educ.
T3	M	51	25	52	34	Catholic sch.
T4	F	32	10	74	6	Dpt of educ.
T5	F	33	10	40	39	Dpt of educ.
T6	M	29	7	49	50	Dpt of educ.
T7	M	37	12	28	15	Dpt of educ.

Methods

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- Post-training questionnaire
- PE teachers received a specific testing equipment
- Implementation of the test (265 1st and 163 2^d grades pupils - 6-8 year-old)
- Informal observation during one testing session
- Phone interview at the end of the testing (10-15')
- Content analysis
- Inter-observer reliability



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Findings – Teachers' training

- All PE teachers have a testing experience
 - Only 2 plan the tests at the beginning and at the end of an unit
 - Combined with other aspects (behaviour, ...), performances are used to provide the marks
- Catching and Rolling reached the reliability requirements within the first 10 trials while 15 to 16 videos were necessary for the six other tests
- Two teachers seemed to have more difficulties that could be related to their lack of experience (P1) or a potential lower interest (P7)

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Findings – Testing preparation

- 6/7 were really satisfied by the information provided by the researchers (3.86/4)
- 5/7 were confident about how to manage the evaluation (3.57/4)
- Before implementing the tests with their classes, all teachers read again the guidelines
 - P3 focused only on equipment setting and evaluation process
 - All others checked the whole guideline
 - No of them needed to re-watch the videos


I really re-read everything



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Findings – Testing organization

- P2, P3, P4, P5, P7 worked alone
- P1 received a support from P2
- P6 worked with a colleague + one PE student

Self preparation (reading guidelines + questions to P6) 

- 1 lesson (P1, P5, P6, P7)
- 1 to 2 lessons (P4)
- 2 lessons (P2)
- 3 lessons/class (P3)



Lesson time
Number of pupils
Pupils' behaviour
+/- 15 pupils per lesson (35')

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Findings – Testing organization

- More time than expected (P3, P5, P7)
- Pupils one/one (P1, P2, P4, P5, P6)
- In- or de-creasing alphabetical order (P3)
- Groups of 3 (P4) or 6 (P6) => good solution for pupils' behaviour
- PE teachers provided all information before each test
- Demonstration (P1, P2, P3, P5)
- Involvement of the pupils to check their understanding (P2)
- Pupil's demonstration (P3)

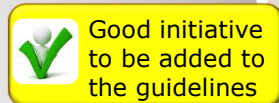


Testing is like teaching=teacher 'feelings' are central but it influences the process => results

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Findings – Testing organization

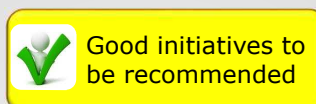
- No cues' recall during testing (P2, P5)
- Recall when repeated errors (P1, P3, P4, P6)
- Additional cues during the testing (P4)
- Encouragement of the pupils (P1)
- Immediate feedback (P1, P3, P4, P6) => 'self-perception'
- P3, P5 modified a test (adding a perpendicular line for sidestepping)
- Ask to the next pupil to be ready
- Throwing: next pupil collect the
- balls and give them (P1, P5, P6) or drop them in a recipient (P3)



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Findings – Testing organization

- Keep the equipment on place (P3, P5)
- Activity proposed to occupy the waiting pupils (table games – P4; drawings – P2)
- P6 wrote a number on the hand of each child to facilitate the circulation of the pupils
- P6 worked with two 'assistants' => effectiveness and good behaviour of the pupils



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Findings – Barriers

- Needed time
 - Modification of the teacher courses planning (P6)
 - Longer lessons (recess time – P7)
 - Setting equipment was time consuming (P3, P5)
- Pupils' behaviour
 - Excitation due to waiting time (P1-2-4-5-7)
 - Rolling balls (throwing) increase pupils' excitation (P1-3-5-6)
 - Lack of concentration (respect of the cues)
 - Difference between schools
 - Impact on the quality of the trials => influence on the validity of the data



Wulf (2013)
McCarthy et al (2013)

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Findings – Barriers

- Equipment
 - Use of the mats of the jumping test (P3-5-6)
 - Target of the throwing test (P1)
 - Uneven floor for bouncing test (P5)
- Evaluation of the trials
 - Time to react was shorter than during the training session (P1)
 - One child starts before the readiness of the teacher (P5)



PE teachers do not
have the same
chances to succeed

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Findings – Suggestions

- Pupils' waiting time
 - A team work (P2-4)
 - Divide in subgroups (P3)
 - Organize a circuit (P4)
- Change balls (throwing)
 - Tennis balls => balls with scratch (P3) or soft (P6)
- Change jumping test
 - Using traditional hopscotch (P5-6)
 - Increase distance between 'flags' (P3)

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Findings – Overall opinion

- Nice tests
 - Well imagined (P2)
- Adapted to the pupils' age
 - Some tests were too difficult for 1st grade pupils and too easy for their 2^d grade classmates (P7)

These tests are well adapted. It's PE teacher's role to find ways to achieve (P1)



Conclusion

- PE teachers were able to implement the tests
- Individual adjustments
- Standardization is a big issue according the diversity of the teaching context
- No certainty that their data could be used for research purpose
- First priority is to manage pupils' behaviour
- 5/7 PE teachers are ready to use the MOBAK-1 battery in their professional practice

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Kiitos

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Pictures

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