Basic **M**otor **C**ompetencies in **Eu**rope – Assessment and Promotion

Teacher training toolkit

Claude Scheuer & Sandra Heck

UNIVERSITÉ DU LUXEMBOURG

Co-funded by the Erasmus+ Programme of the European Union

Technical sheet

Title: Teacher training toolkit (English Version).

Authors: Claude Scheuer & Sandra Heck (Institute for Teaching and Learning - Department of Education and Social Work - University of Luxembourg; Campus Belval - MSH; 11, porte des Sciences; L-4365 Esch-sur-Alzette)

Number of pages: 16

Year: 2020

Cite as: Scheuer, C., & Heck, S. (2020). *Teacher training toolkit*. Esch-Alzette: University of Luxembourg. doi: 10.5281/zenodo.3768937

Project: Basic Motor Competencies in Europe – Assessment and Promotion

Project Coordinators: Erin Gerlach & Jeffrey Sallen (Faculty of Human Sciences - Educational Sciences & Didactics in Sports - University of Potsdam)

Principle Investigators: Erin Gerlach & Jeffrey Sallen (University of Potsdam, Germany); Christian Herrmann (University of Basel, Switzerland; Zurich University of Teacher Education, Switzerland); Claude Scheuer (University of Luxembourg, Luxembourg)

Funder: European Commission

Programme: Erasmus+ Sport: Collaborative Partnerships - 2017

Reference: 590777-EPP-1-2017-1-DE-SPO-SCP

Timeline: January 2018 - December 2019

Project Sheet: https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/590777-EPP-1-2017-1-DE-SPO-SCP

Website: http://mobak.info/bmc-eu/

Project partners:

The authors wish to acknowledge the contribution of the Basic Motor Competencies in Europe – Assessment and Promotion (BMC-EU) project team for the development of the tools here referenced for BMC-EU (2020).

No.	Institution	Involved researchers
1	European Physical Education Association [EUPEA], Switzerland	Tamás Csányi, Jana Vašíčková
2	Goethe-University of Frankfurt, Germany	Fabienne Ennigkeit, Christopher Heim
3	Hanze University of Applied Sciences, Groningen, Netherlands	Remo Mombarg, Berdien Moraal – van der Linde
4	Lithuanian Sports University, Kaunas, Lithuania	Arūnas Emeljanovas, Brigita Miežienė
5	Masaryk University, Brno, Czech Republic	Jaroslav Vbras, Petr Vlček
6	National and Kapodistrian University of Athens, Greece	Emmanouil Adamakis, Irene Kossyva
7	University of Basel, Switzerland	Christian Herrmann, Harald Seelig, Marina Wälti
8	University of Foggia, Italy	Dario Colella, Cristiana Simonetti
9	University of Liège, Belgium	Boris Jidovtseff
10	University of Lisbon, Faculdade De Motricidade Humana, Portugal	Marcos Onofre, Ana Quitério
11	University of Luxembourg, Luxembourg	Andreas Bund, Sandra Heck, Claude Scheuer
12	University of Potsdam, Germany	Erin Gerlach, Maike Niehues, Jeffrey Sallen
13	University of Salzburg, Austria	Günter Amesberger, Benjamin Niederkofler
14	Trnava University, Slovakia	Jana Labudova, Dana Masarykova

Table of contents

0 INTRODUCTION

In the frame of the BMC-EU project (*Basic motor competencies in Europe*), a teacher training toolkit consisting of a teacher training concept with an accompanying user manual (BMC-EU intellectual output 4) was developed in order to support the implementation of the modular support toolkit on the basis of the concept of basic motor competences (BMC-EU intellectual output 3; Scheuer & Heck, 2020). The aim of this support toolkit is to be implemented mainly at the level of regular physical education lessons to initiate adaptations regarding the content and methods in physical education instruction.

The teacher training toolkit contains materials to implement teacher trainings structured in a theoretical and a practical part. In a first step, teachers are familiarized with the MOBAK concept, measurement, test procedure, data procession and evaluation as well as with the interpretation of test results. In a second part, they learn how to get from the diagnosis of the students' basic motor competencies and the strengths and weaknesses identified in the assessment to concrete interventions by using the MOBAK support framework and the accompanying supportive handouts in form of a modular support toolkit, ready to be implemented in concrete educational situations to support students with additional needs in basic motor competencies.

As the teacher training toolkit aims to support and facilitate the implementation of the *Modular support toolkit for teachers* (Scheuer & Heck, 2020) based on the MOBAK concept and measurement (Herrmann, 2018), reference to the support toolkit and the *MOBAK Test manual* is given throughout this document.

1 TEACHER TRAINING CONCEPT

In the following, an overview of the teacher training contents is given, followed by possible scenarios for implementation of the theoretical and practical parts of the training.

1.1 OVERVIEW OF THE TEACHER TRAINING CONTENTS

Generally, the teacher training can be divided into two related parts: (1) a **theoretical part**, informing about the theoretical framework of the MOBAK concept and the corresponding support toolkit; and (2) a **practical part**, informing about the use of the support toolkit and the corresponding teaching materials, as well as an active phase of application of these materials.

1.1.1 Theoretical part

The first part of the teacher training is mainly characterized by the frontal transmission of relevant information and knowledge related to the conceptual aspects using the powerpoint presentations developed as part of the teacher training toolkit. The toolkit contains the following presentations, which can be used in that order in this part of the teacher training:

1. Master presentation
2. MOBAK – Concept and measurement
3. MOBAK Test procedure – Organisation, test procedure and valuation
4. Data procession – Evaluation
5. Guidelines for the interpretation of the test results
6. MOBAK General support framework
7. Modules of the support toolkit

The possible use and implementation of the respective presentations are described in chapter 2. The teacher training presentations are made available for download separately. Please follow this link to download the presentations: http://mobak.info/bmc-eu/ .

1.1.2 Practical part

The second part of the teacher training is mainly characterized by the practical and interactive implementation of the support toolkit and the corresponding teaching materials during three active phases of application of these materials.

1. Phase 1: **Coordination Request Controller (CRC)**
   During this first phase, participants are familiarized with the *MOBAK task description cards* and their use when it comes to the adaption of the MOBAK test tasks based on the principles of variation of the CRC.

2. Phase 2: **Competence-oriented approach**
   During this second phase, participants are familiarized with the *Activity cards with learning tasks* and their use when it comes to the implementation of competence-oriented tasks (competence acquisition tasks, learning reflection tasks, and application tasks).

3. Phase 3: **Application phase**
   During this third phase, participants are asked to develop a teaching sequence using different learning tasks to promote basic motor competences based on examples of MOBAK test results.

The complimentary teaching materials in form of the *MOBAK Task description cards* and the *Activity cards with learning tasks* are described in chapter 3. These materials are made available for download separately. Please follow this link to download the materials: http://mobak.info/bmc-eu/ .

1.2 GUIDELINES AND SCENARIOS FOR IMPLEMENTATION

In the following, guidelines and possible scenarios for implementation regarding the structure and the timing of the teacher training with different phases are given. Generally, it can be said that the teacher training should embrace at least five hours in total (two for the theoretical part and three for the practical part), in order to address all relevant phases and parts in a meaningful

way. Therefore, the basic scenario described in chapter 1.2.1 and 1.2.2 is based on a minimum implementation time of five hours. It is of course possible to extend the duration of the training and to implement it in several, separate sessions, as described in the alternative scenarios below.

1.2.1 Theoretical part

A possible minimum structure and timing for the theoretical part of the teacher training is described in table 1. For the implementation of this part of two hours, a seminar or classroom with a beamer is necessary.

Table 1. Minimum scenario for the theoretical part of the teacher training

Part	Item	Time	Topic	Resources and materials
-	-	5'	Welcome & introduction	
1	*MOBAK Test instrument*			
	1.1	10'	MOBAK – Concept and measurement	PPT presentation
	1.2	15'	MOBAK Test procedure – Organisation, test procedure and valuation	PPT presentation
	1.3	10'	Data procession – Evaluation	PPT presentation
	1.4	10'	Questions and answers	
2	**MOBAK Support framework**			
	2.1	15'	Guidelines for the interpretation of the test results	PPT presentation
	2.2	20'	MOBAK General support framework	PPT presentation
	2.3	20'	Modules of the support toolkit	PPT presentation
	2.4	10'	Questions and answers	
-	-	5'	Evaluation	Evaluation forms

Alternatively, the theoretical part of the training could be split into two sessions, with a first session on the *MOBAK Test instrument* prior to the implementation of the MOBAK test procedure by the teachers in their classes, as well as a second session on the *MOBAK Support framework* after the implementation of the MOBAK tests. In that case, session 1 could include a practical part on the implementation of the MOBAK test items within item 1.3 about the test procedure (table 2).

Table 2. Alternative scenarios for the theoretical part of the teacher training

Session	Time	Item	Topic
1	\multicolumn{MOBAK Test instrument}		
	2-3 hours	1.1	MOBAK – Concept and measurement
		1.2	MOBAK Test procedure – Organisation, test procedure and valuation
		1.3	Data procession – Evaluation
2	*MOBAK Support framework*		
	2-3 hours	2.1	Guidelines for the interpretation of the test results
		2.2	MOBAK General support framework
		2.3	Modules of the support toolkit
		2.4	Questions and answers

1.2.2   Practical part

A possible minimum structure and timing for the practical part of the teacher training is described in table 3. For the implementation of this part of three hours, a seminar or classroom with a beamer is necessary.

Table 3. Minimum scenario for the practical part of the teacher training

Part	Item	Time	Topic	Resources and materials
-	-	5'	Welcome & introduction	
-	-	10'	Warm-up	
3	*Coordination Request Controller (CRC)*			
	3.1	15'	*Theoretical introduction 1* Coordination Request Controller	Script based on the *Modular support toolkit for teachers*
	3.2	45'	*Practical implementation 1* Adjust MOBAK test tasks using the CRC	MOBAK task descriptions cards + equipment
4	*Competence-oriented approach*			
	4.1	15'	*Theoretical introduction 2* Competence-oriented approach	Script based on the *Modular support toolkit for teachers*
	4.2	45'	*Practical implementation 2* Development of learning tasks to promote basic motor competences based on examples of MOBAK test results and integrated into a teaching sequence	Activity cards with learning tasks + further resources, e.g. books, tablets, …
	4.3	30'	*Presentation and discussion* Presentation of the developed teaching sequences with examples of learning tasks	
-	-	15'	Synthesis and evaluation	Evaluation forms

8

Alternatively, the practical part of the training could be split into two separate sessions, with a first session focusing only on the competence area *Self-movement* and a second session focusing only on the competence area *Object control* (table 4). In that case, each of the two sessions could last between three and four hours.

Table 4. Alternative scenarios for the practical part of the teacher training

Session	Time	Item	Topic
3			***Self-movement***
	3-4 hours		Part 3.1: *Coordination Request Controller (CRC)*
		3.1.1	Theoretical introduction 1
		3.1.2	Practical implementation 1
			Part 3.2: *Competence-oriented approach*
		3.2.1	Theoretical introduction 2
		3.2.2	Practical implementation 2
		3.2.3	Presentation, discussion and synthesis
4			***Object movement***
	3-4 hours		Part 4.1: *Coordination Request Controller (CRC)*
		4.1.1	Theoretical introduction 1
		4.1.2	Practical implementation 1
			Part 4.2: *Competence-oriented approach*
		4.2.1	Theoretical introduction 2
		4.2.2	Practical implementation 2
		4.2.3	Presentation, discussion and synthesis

Besides the scenarios described above, further implementation scenarios focusing more on specific items are possible, as long as the general outline as it is described in this chapter is respected.

2   TEACHER TRAINING USER MANUAL

In the following, the contents and the possible use of the seven available powerpoint presentations in the teacher training are shortly described. The available materials can be adapted and implemented in a flexible way, following local and regional contexts.

2.1   MASTER PRESENTATION

The **Master presentation** is a general presentation structuring the entire workshop presentation. It contains a possible *Structure of the workshop* and general information about *The BMC-EU project*. Furthermore, the selected slides from all other presentations can be included here in the respective parts, thus allowing a flexible use adapted to the implementation context.

The structure of the master presentation is the following:

1. Structure of the workshop
2. The BMC-EU project
3. MOBAK – Concept and measurement
4. MOBAK Test procedure
5. Data procession - Evaluation
6. Guidelines for the interpretation of the test results
7. MOBAK General support framework
8. Modules of the support toolkit

2.2 MOBAK – CONCEPT AND MEASUREMENT

The presentation **MOBAK – Concept and measurement** describes the concept of basic motor competencies and the MOBAK measurement based on this concept. So first the competency structure model of basic motor competencies is explained by differentiating between *basic motor competencies* and *basic motor qualifications*. Then the MOBAK test setup and content for first and second grade (MOBAK 1-2) as well as third and fourth grade (MOBAK 3-4) with test items in the test areas *Self-movement* and *Object movement* are presented, completed by general information about the implementation of the test and test quality criteria.

The structure of the presentation is the following:

1. MOBAK concept: Basic motor competencies
2. MOBAK measurement: Test setup and content
    a. Test items
    b. Test implementation
    c. Test assessment and test evaluation
    d. Test quality criteria and test norms

For more information about the *MOBAK Concept and measurement*, please see the *MOBAK Test manual* (Herrmann, 2018).

2.3 MOBAK TEST PROCEDURE – ORGANISATION, TEST PROCEDURE AND VALUATION

The presentation **MOBAK Test procedure** informs about the organisation and the implementation of the test instrument, as well as about how to rate the performances of the tested children.

The structure of the presentation is the following:

1. Test organisation
2. Test implementation
3. Test rating

For more information about the *MOBAK Test procedure*, please see the *MOBAK Test manual* (Herrmann, 2018).

2.4 DATA PROCESSION – EVALUATION

The presentation **Data procession – Evaluation** provides information about how the MOBAK test data are processed by summing up the results in the different test items to a score in each of the two test areas, as well as to a *MOBAK Total score*, thus allowing a differentiated analysis of the children's performance.

The structure of the presentation is the following:

1. Evaluation of MOBAK 1-4
2. Data procession and evaluation
3. MOBAK Total score

For more information about the *Data procession and evaluation*, please see the *MOBAK Test manual* (Herrmann, 2018).

2.5 GUIDELINES FOR THE INTERPRETATION OF THE TEST RESULTS

The presentation **Guidelines for the interpretation of the test results** explains how the test results can be interpreted. This can be done be either diagnosing *educational needs of support* or by *comparison with the norm sample*. Furthermore, the results can be interpreted on the class (or group) level in comparison to the total sample values, as well as on the student (or individual) level in comparison to the average class (or group) results and the average total sample. The interpretation is explained with two concrete examples.

The structure of the presentation is the following:

1. Diagnostic of educational needs
2. Comparison with the norm sample
3. Interpretation of the test results on class level
    a. Qualification level
    b. Competence level
4. Interpretation of the test results on student level
    a. Qualification level
    b. Competence level

For more information about the *Guidelines for the interpretation of the test results*, please see the *Modular support toolkit for teachers* (chapter 1; Scheuer & Heck, 2020).

2.6   MOBAK GENERAL SUPPORT FRAMEWORK

The presentation **MOBAK General support framework** describes the theoretical background of the support concept in a general way. After an introduction, the two concepts that the support framework is based on are presented and explained: first, (1) *Competence-orientation* is defined with its central principles, followed by characteristics of competence-oriented tasks and specifics of competence-orientation in primary physical education settings; then the concept of a (2) *Coordination Request Controller (CRC)* based on five categories of pressure conditions is explained.

The structure of the presentation is the following:

1. Introduction
    a. Use of the test results for future physical education lessons
    b. Theoretical background of the support framework

2. Competence-orientation
    a. Definitions
    b. Central principles
    c. Competence-promoting tasks
    d. Competence-orientation in primary physical education settings

3. Coordination Request Controller (CRC)
    a. Principles
    b. Five categories of pressure conditions under which coordinative tasks have to be fulfilled:
        i. Precision pressure
        ii. Time pressure
        iii. Complexity pressure
        iv. Situational pressure
        v. Load pressure

For more information about the *MOBAK General support framework*, please see the *Modular support toolkit for teachers* (chapter 2.1; Scheuer & Heck, 2020).

2.7   MODULES OF THE SUPPORT TOOLKIT

The presentation **Modules of the support toolkit** provides information about the use of the support concept and describes how it can be put into practice, by providing examples based on the teaching materials developed in the frame of the project. Following the (1) *Competence-oriented approach*, information is provided about the different functions of educational tasks, followed by a concrete example. As for the (2) *Coordination Request Controller (CRC)*, the different steps of a CRC-analysis are explained. Finally, the implementation of concrete measures based on the use of the teaching materials is described and explained using concrete examples: (1) *Task description cards*, including a coordinative request profile and principles of variation;

(2) *Activity cards*, describing learning tasks including possible task variations and competence-oriented task formulations; and (3) an example for *Planning a teaching unit and sequence*.

The structure of the presentation is the following:

1. Competence-oriented approach
   a. Different functions of tasks:
      i. Diagnostic tasks
      ii. Competence acquisition tasks
      iii. Learning reflection tasks
      iv. Application tasks
   b. Example: Balancing

2. Coordination Request Controller (CRC)
   The CRC-analysis follows three main steps:
      i. The creation of a coordinative request profile (based on pressure conditions)
      ii. The development of principles of variation
      iii. The derivation of methodological measures and concrete examples

3. Implementation
   a. The creation of a coordinative request profile (based on pressure conditions)
      Example: Balancing
   b. The development of principles of variation
      Example: Throwing
   c. The derivation of methodological measures and concrete examples
      Example: Throwing (Throw off 1)
   d. Planning a teaching unit and sequence

For more information about the *Modules of the support toolkit*, please see the *Modular support toolkit for teachers* (chapter 2.2; Scheuer & Heck, 2020).

3 COMPLIMENTARY MATERIALS

For a successful implementation of the teacher training, a series of complementary materials are made available for download. In the following, the respective materials are listed and shortly described. Essential are the teaching materials in form of *MOBAK Task description cards* (3.1) and *Activity cards with learning tasks* (3.2), as they will be used and implemented by the trained teachers in their physical education classes. Besides this, some administrative documents accompanying the teacher training have been developed as well (3.3).

3.1 MOBAK TASK DESCRIPTION CARDS

In total, 16 *MOBAK Task description cards* describing the respective MOBAK test items, including a coordinative request profile as well as principles and ideas for variation, are available: 8 cards

for *MOBAK 1-2* and 8 cards for *MOBAK 3-4*, each with 4 cards for *Self-movement* and 4 cards for *Object movement* respectively.

The *MOBAK Task description cards* are made available for download separately. Please follow this link to download the cards: http://mobak.info/bmc-eu/ .

3.2 ACTIVITY CARDS WITH LEARNING TASKS

In total, 47 *Activity cards with learning tasks* have been developed to be implemented in physical education classes: 27 cards for the competence area *Self-movement* and 20 cards for the competence area *Object movement*. Each of these cards describe learning tasks for the respective motor skills, including possible task variations and competence-oriented task formulations

The *Activity cards with learning tasks* are made available for download separately. Please follow this link to download the cards: http://mobak.info/bmc-eu/ .

3.3 TEACHER TRAINING DOCUMENTS

In order to facilitate the organisation and implementation of the teacher training, some helpful documents have been developed:

1. An ***invitation letter for teachers***, informing about the aim of the teacher training;
2. A ***list of participants***, where participants can register and sign;
3. A ***confirmation of participation*** to acknowledge the participation of the teachers;
4. An ***evaluation form for teachers*** to evaluate the teacher training;
5. An ***evaluation form for the trainer trainers*** to evaluate the implementation of the teacher training.

The teacher training documents are made available for download separately. Please follow this link to download the cards: http://mobak.info/bmc-eu/ .

4 REFERENCES

Herrmann, C. (2018). *Test zur Erfassung motorischer Basiskompetenzen für die Klassen 1 - 4 (MOBAK)* (Hogrefe Schultests). Göttingen: Hogrefe.

Scheuer, C., & Heck, S. (2020). *Modular Support Toolkit for Teachers*. Esch-Alzette: University of Luxembourg. doi: 10.5281/zenodo.3725901

5 ANNEXES

5.1 TEACHER TRAINING PRESENTATIONS

The teacher training presentations are made available for download separately. Please follow this link to download the cards: http://mobak.info/bmc-eu/

5.2 MOBAK TASK DESCRIPTION CARDS

The *MOBAK Task description cards* are made available for download separately. Please follow this link to download the cards: http://mobak.info/bmc-eu/

5.3 ACTIVITY CARDS WITH LEARNING TASKS

The *Activity cards with learning tasks* are made available for download separately. Please follow this link to download the cards: http://mobak.info/bmc-eu/

5.4 TEACHER TRAINING DOCUMENTS

The teacher training documents are made available for download separately. Please follow this link to download the cards: http://mobak.info/bmc-eu/