1 From IPPTP to IPPTP-R

The “International Physical Performance Test Profile (IPPTP)” was developed in 1985 by Klaus Bös and Heinz Mechling and published in the “Technical Studies” of the International Council of Sport Science and Physical Education (ICSSPE) (Bös & Mechling, 1985).

As a direct result, the IPPTP was used in Greece (Bös et al., 1997; Papavassiliou, 2001) and in Luxembourg (Wydra et al., 2005; Wydra & Leweck, 2007). However, it can be stated that the IPPTP has not become widespread and accepted internationally. The same is true for the Eurofit test (van Mechelen et al., 1991), although far more test applications have been published for the Eurofit.

The basic concepts of IPPTP and Eurofit are convincing, as is the selection of test tasks. Reasons for the lack of widespread use are mainly the difficult access to simply written test manuals as well as the lack of digital development and thus a lack of simplified automated collection, processing, and evaluation of test data.

In Germany, a national initiative was launched by the Conference of Sports Ministers in 2006 with the aim of creating a readily available test instrument for widespread use in schools and sports clubs. The German Association for Sports Science (dvs) placed a respective commission with an adhoc committee under the leadership of Prof. Dr. Klaus Bös (KIT).

In 2009, this adhoc committee presented the “Deutscher Motorik-Test 6–18” (German Motor Test 6–18) (GMT 6–18) as a result of their work (Bös, 2009). In the meantime, the GMT 6–18 has been administered to about 250,000 children and adolescents, standardized throughout Germany, and digitized. A new edition was published in 2016 (Bös, 2016).

Data collection for the GMT 6–18 can be done via smartphone or tablet. The data are stored in a database, which enables their further scientific processing in anonymized form (cf. Chap. 4).

Increasingly, the GMT 6–18 is also being used in other countries. Therefore, a way was sought to make the updated test more easily accessible internationally.

This is now being done with the present English-language version, which is based on the current edition of the GMT 6–18. This further development of the IPPTP is published internationally under the name “IPPTP-R”.

Concept and test tasks of the IPPTP-R

The test concept of the IPPTP-R is based on the ability-oriented approach (Bös & Mechling, 1983; Gundlach, 1968) with the motor system as a complex, multidimensional construct that cannot be described using one parameter. Latent abilities are measured via the measurable skill level.

The IPPTP-R consists of eight test tasks, which are presented in Table 1. The test tasks are categorized by abilities and task structure.

Seven motor-ability domains and four task categories are considered in the selection of test tasks. At the first level, the task categories are differentiated into locomotor and partial body movements. On a second level, locomotion movements are differentiated into walking, running and jumping, and partial body movements are differentiated into upper extremities and trunk according to the muscles used.

Using the eight test tasks, all rows and columns of the matrix of abilities and task structure are represented by at least one test task. If the concept of fitness is defined more broadly, fitness also includes constitutional prerequisites (Bouchard et al., 2012; Oja & Tuxworth, 1995; Tittlbach et al., 2017). Therefore, height and weight are included in the IPPTP-R and BMI is calculated from them.