Abstract

Title: Assessment of individual game skills of ice hockey players on the example of puck control

Aims: The first aim of the thesis will be to create a tool to assess an individual player's skills in ice hockey.
The second aim will be to use the developed assessment tool to define standards for ice hockey players in terms of puck control.

Methods: In our thesis, we used item response theory, namely, Rasch analysis and Mokken analysis, which belong among non-parametric models of item response theory. We used Rasch analysis to select items from the item bank for the assessment tool. The reliability was calculated using Cronbach's alpha. We used Mokken analysis to confirm the results of Rasch analysis and reliability values.

Results: An assessment tool consisting of 17 items was developed. The diagnostic tool is constructed in the form of a Guttman scale based on the difficulty of the items. The diagnostic tool was used to define standards in terms of puck control in ice hockey for players aged 6–15 years. The methodology created for the development of the assessment tool is suitable for use in the development of diagnostic tools for the assessment of other ice hockey skills.

Keywords: Rasch model, Guttman scale, Mokken analysis, Items.