Validation of performance assessment instrument on futsal game in extracurricular activities

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Abstract

The research is aimed at evaluating the content validity and performance of an assessment instrument, based on futsal games in extracurricular activities. This is very important because of its ability to review objectively and also the application as a material for coach evaluation. In addition, the method used was research evaluation, with documents as the subject, and Delphi technique was applied in data collection by 5 experts. Furthermore analysis involved the use of formula Content Validity Ratio (CVR), which was developed by Lawshe, and the results showed the values obtained to be above 0.05, with indicators of Decision Making being 1.00, Skill = 1.00, Support = 0.60 and Re-position = 1.00. In conclusion, the performance assessment instrument based on futsal game in extracurricular activities was observed to have high value validity contents.

Keywords: content validity, performance assessment, futsal game.

INTRODUCTION

Extracurricular activities are very important in the accommodation of students' interests and talents, as they assist in proper development, and adolescents often improve skills and competencies through participation.
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In addition, some studies suggest the propensity of a very positive impact on students' academics and self-confidence (Chan, 2016; Tanner, 2017), hence, it is recommended at schools, with the inclusion of those that are physical activity-based. Other studies report a positive impact of physical activities on students, as it is able to enhance their fitness, as well as the likeliness to obtain good grades (Ayan, Carral, & Montero, 2015; Morita et al., 2016; Pellicer-Chenoll et al., 2015).

Numerous sports activities include futsal as the most significant interest, being one of the invasion games and some experts attribute decisions making, skills, support and re-position as its essential factors (Ali A., 2011; Ando, Mishio, & Nishijima, 2018; Keolahragaan & Yogyakarta, n.d.; Memmert & Harvey, 2008; Oslin, Mitchell, & Griffin, 2016). Therefore, it is necessary to perform some related exercises, in order to properly optimise them, and enhance the play of futsal.

During training process assessment, there is need to determine progress, and the results of learning are possibly measured through two means, including sport skills (Ali A., 2011; Arias-Ester & Castejón, 2014), and performance/authentic assessment (Adib, Rusilowati, & Hidayah, 2018; Nurgiyantoro, 2008; VanTassel-Baska, 2013). Based on the results of the sport skill test, numerous assays have been developed to evaluate the invulnerability of invasion games, although performance assessment of futsal is rarely studied or developed. Subsequently, the evaluation of sport skill test has not been able to accurately measure the overall futsal game, because of the limitation of measuring only the skill factor and not decision makers and support. Previous research conducted by (García-López, González-Villora, Gutiérrez, & Serra, 2013), reported that “Assessment tools related to decision making, which have been validated by experts are highly recommended for development, in order to assess the performance of sports games”.

The purpose of this study is to test the contents validity of the performance assessment instrument on futsal game because the
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reliability of instruments are needed for further investigations (Zamanzadeh et al., 2015).

METHOD

Method involved the evaluation of subjects in the form of documents, and data collection required a Delphi technique, with 5 experts. This was adopted as a systematic way of obtaining an agreement (Pendidikan, 1994), and data analysis uses the formula of Content Validity Ratio (CVR), which was developed by (LAWSHE, 1975), stipulating:

\[
CVR = \frac{ne - (N:2)}{N:2}
\]

Description:
CVR : Content Validity Ratio
ne : The number of panelists who answered "Important "
N : Total number of panelists

Research Procedure

The first step involved drafting performance assessment on futsal game, by (1) Conducting preliminary research, and initial data collection for literature review, as well as analysis of the assessments performed by the teacher or trainer. (2) Evaluation of resulting documents from journals collected in step 1.

The second step entails the formulation of performance assessment content by 5 experts, with the use of a Delphi technique, providing an evaluation of important, quite and not important categories.

The third step involved the assay of (1) quantitative data in the form of expert evaluation, as instances where the answer is important, its worth is attributed as 1, while 0 where it is quite or not important, and the subsequent analysis is performed using the CVR formula. (2) Qualitative data which was in the form of advice was used to improve the language and content of the assessment instrument based on the performance of futsal games.
The fourth step entails the preparation and improvement of draft tools for performance evaluation revised through the previous stage.

**RESEARCH RESULT**

Based on calculations with CVR formula, the results obtained are seen in table 1.

1. Decisions making

\[
CVR = \frac{ne - (N:2)}{N:2} \quad CYR = \frac{(5 - (5:2))}{5:2} = 1.00
\]

Description:

CVR : Content Validity Ratio  
ne : The number of panelists that answered "Important "  
N : Total number of panelists

2. Skill

\[
CVR = \frac{ne - (N:2)}{N:2} \quad CYR = \frac{(5 - (5:2))}{5:2} = 1.00
\]

Description:

CVR : Content Validity Ratio  
ne : The number of panelists that answered "Important "  
N : Total number of panelists

3. Support

\[
CVR = \frac{ne - (N:2)}{N:2} \quad CYR = \frac{(4 - (5:2))}{5:2} = 0.60
\]

Description:

CVR : Content Validity Ratio  
ne : The number of panelists that answered "Important "  
N : Total number of panelists

4. Re-position

\[
CVR = \frac{ne - (N:2)}{N:2} \quad CYR = \frac{(5 - (5:2))}{5:2} = 1.00
\]
Description:

CVR : Content Validity Ratio

ne : The number of panelists that answered "Important"

N : Total number of panelists

Table 1. Results of CVR Analysis.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Indicator</th>
<th>Expert 1</th>
<th>Expert 2</th>
<th>Expert 3</th>
<th>Expert 4</th>
<th>Expert 5</th>
<th>CVR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Futsal game</td>
<td>Decisions making</td>
<td>Important</td>
<td>Important</td>
<td>Important</td>
<td>Important</td>
<td>Important</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Skill</td>
<td>Important</td>
<td>Important</td>
<td>Important</td>
<td>Important</td>
<td>Important</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Support</td>
<td>Important</td>
<td>Important</td>
<td>Enough important</td>
<td>Important</td>
<td>Important</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>Re-position</td>
<td>Important</td>
<td>Important</td>
<td>Important</td>
<td>Important</td>
<td>Important</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Based on table 1, it is concluded that items of Decisions making, skill, support and re-position have very good content validity, as a result of the CVR scores obtained, being more than 0.500 (Tomoliyus, Sumaryanti, & Jadmika, 2016). In addition, these are further specified as performance-based instrument, appropriate for measuring futsal game.
The Construction performance Assessment Instrument on futsal game performance

**Task**
A total of 3 students were instructed to play futsal against 3 others, for 3 minutes, and the size of a field as well as the actual futsal field was similar.

- **Decisions Making**
  - It is always right to pass ball
  - Sometimes it's right
  - It is never right

- **Skill Implementation**
  - Being always efficient in every movement
  - Sometimes
  - Never

- **Support**
  - Always searching for a place that is free of opponents
  - Partaking in this sometimes
  - Never seeking

- **Re-Position**
  - Always return to starting position
  - Participating sometimes
  - Never getting involved with this

**Sheet Observation**
Instructions for filling in the Sheet observation

Provide a value of 3, on instances where it is always right / efficiency / free places / always return to the initial position.

Give a value of 2, if sometimes right / efficiency / looking for a free place / return to the initial position.

Give a value of 1, in cases were it is always inaccurate / not efficient / not looking for a free place / not returning to the initial position.

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>MD</th>
<th>SI</th>
<th>S</th>
<th>ReP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Skor Nilai:** \( N = \frac{\Sigma x}{2} \times 25 \)

Explanation:
- \( N \) = total/ value score
- \( \Sigma x \) = assessment score total (MD, SI, S, ReP)

Construction of the instrument was based on expert evaluations.

**DISCUSSION**
The results show the futsal game performance assessment instrument possesses a CVR value above 0.50, based on several factors.
These include decision making (1.00), Skill (1.00), Support (0.60), and Return to position (1.00), hence, it is said to be of high validation.

This is supported by (Ghauri & Gronhaug, 2010), stating the use of appropriate instruments in that measurement processes require to high content validations, while Retnawati (2017) also reported this as a requirement for full performance assessment instruments. In addition, high authentication was attributed as the basis [Azwar, 2012], and prior to this development, other validity content needs to be fulfilled (Zamanzadeh et al., 2015). This is based on the ability to reflect the contract variable measured in each selected item (Newman, Lim, & Pineda, 2013).

**CONCLUSION**

Based on the results and discussions, it is concluded that performance assessment instrument based on futsal game possess high value validity contents, thus, the enhanced probability of being used for subsequent evaluation.

**REFERENCES**


