



## THEORETICAL FRAMEWORK OF INTERCULTURAL COMPETENCE ASSESSMENT TOOLS

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### ABSTRACT

The modern globalized and digitalized world required coaches and physical education pedagogues to apply different elements of intercultural competence in their everyday professional life. This necessitated the need for specialized training. **PURPOSE:** The goal of the present theoretical analysis was to provide detailed understanding and identify key components of various questionnaires in order to build-up a pedagogical model for acquiring intercultural competence among students in the field of sport and physical education. We have chosen to review validated and reliable tools, which would give us a complete picture related to our future research and model testing. **METHODS:** We have done a comparative theoretical analysis based on reliability, structure dimensions, and scope of the questionnaires. We have outlined specific features, strengths and weaknesses. **RESULTS:** As a result, we have revealed the existence of many assessment tools of intercultural competence but they need to be precisely selected and described in order to their potential usage in different contexts. Furthermore, the tools used independently could not give accurate and reliable information. They should be an integrated part of the global assessing model in accordance with the measurement goal. **CONCLUSION:** Referring to the comparative theoretical analysis, we could conclude that good and detailed knowledge about the content of existing assessment tools is a prerequisite for effective design of test batteries for measuring intercultural competence.

**Key words:** intercultural competence, assessment tools, pedagogical model

### INTRODUCTION

Sport pedagogues, managers and teachers of physical education work in a sociocultural environment and are required to have good interpersonal, intercultural, lingual and communication skills. These skills are key elements of intercultural competence (IC). There is not a single definition of the term “intercultural competence”. According to Hammer, the intercultural competence is the people’s ability to adapt in an appropriate way to the cultural differences (1). Deardorff defined the term as the one’s ability to interact efficiently with people with different cognitive, emotional and behavioural perceptions in intercultural situations (2). Bennett and Bennett considered the IC as the ability to communicate

efficiently in cross-cultural situations in accordance with the cultural context (3). Fantini defined the term as a unity of foreign language and communication skills (4). Many definitions attempt to define the term “intercultural competence”. In this regard, Spitzberg and Changnon summarized the existing definitions and proposed a classification of the different models (5). According to their classification, existed five groups of IC models: compositional models (described the main elements without the relations between them); co-orientation models (described the influence of the communication and intercultural skills on the intercultural interaction); development models (described the development process of IC); adaptation models (described the people’s ability to change and adapt their behaviour in the interaction with people with different cultures); causal models (described the relations between the elements of IC). On the other hand, Barrett concluded that

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the main elements of intercultural competence, which were commonly mentioned in the term definitions, were attitudes (acceptance of different cultures), knowledge (culture and communication theory), skills (foreign language, communication and sociolinguistic), and behaviour (flexibility in the interactions with people with different cultures) (6). Arasaratnam reflected on the commonly used variables of IC. She revealed that self-awareness; positive attitudes towards other cultures; skills for active listening; empathy; cognitive flexibility; ability to accept the differences; language literacy; ethnocentrism were outlined as basic elements of intercultural competence (7).

The modern world we live in requires people to have a higher level of intercultural competence in order to adapt quickly to the changing conditions of the external environment and to be competitive to the labour market. For this reason, in the process of educating sport pedagogues, sport managers and physical education teachers need to pay attention to the design, the improvement and the assessment of the intercultural competence that will help those specialists to apply their professional knowledge in practice. There is no uniform methodology to assess intercultural competence, which should be considered in the design process of an experimental pedagogical model for building IC among coaches, sport managers and physical education teachers. The developed tools investigated different elements in different intercultural contexts and areas of human activities. For this reason, the researchers should possess detailed knowledge about the structure and the application of the tools in order to use the most appropriate one in accordance with the research goals.

## METHODS

The aim of the current research paper is to analyse the existing tools for intercultural competence assessment in relation to be used in the design process and testing of an experimental pedagogical model for building IC in the field of physical education and sport. In this regard, we made a comparative theoretical analysis based on several criteria: reliability, structure and scope. In the analysis were included seven questionnaires, which we considered as appropriate for the future testing of the pedagogical model. We indicated the weaknesses and strengths of the studied tools, too.

## RESULTS

After detailed study of the existing tools for intercultural competence assessment, we chose seven questionnaires, considered as appropriate in order to be applied in the design process of an experimental methodology for building IC among futures specialists in the field of physical education and sport.

At the end of the nineties Hammer and Bennett developed *Intercultural Development Inventory* (IDI), which was used to study people's orientation towards other cultures (8). Firstly, the questionnaire consisted of 60 items, but after the confirmatory analysis, the authors reduced them to 50 items. Ten demography questions were included, too. The scientists used a five-pointed Likert scale. They based the questions on real statements of people with different cultures. A high degree of reliability of reliability was calculated using Krombach's Alpha. Six dimensions were determined: denial (refusing to interact with people from different cultures) and defence (non-accepting of people from different cultures),  $\alpha = 0,85$ ; minimization (accepting the existing differences among cultures, but the own culture was considered "better")  $\alpha = 0,83$ ; reverse (accepting the existing differences among cultures, but the foreign culture is accepted as "better"),  $\alpha = 0,80$ ; acceptance (accepting foreign cultures) and adaptation (adapting the behaviour towards different cultures),  $\alpha = 0,84$ ; encapsulated marginality (multicultural identity with confused cultural perspectives),  $\alpha = 0,80$ . This assessment tool was used in many researches in the field of higher education. Egle and Egle, for example, investigated the foreign language competence and the intercultural sensitivity of the students in relation to the applying programs for studying abroad (9). Altshuler and al. used the test among physician trainees with the aim to report the changes of their intercultural sensitivity (10).

*Intercultural Competence Questionnaire* (ICQ) is a tool that assesses the intercultural competence in organizational context. The questionnaire consisted of 23 questions with seven-pointed Likert scale. Four dimensions were formulated - interpersonal skills, team effectiveness, intercultural uncertainty, and intercultural empathy. The test was validated and a high level of reliability was calculated ( $\alpha = 0,88$ ). This tool was used in a research of the intercultural competence in the business field (11). Giromini and Brusadelli adapted and validated the test among Italian students and

revealed „interesting associations between interpersonal competence and constructs such as well-being, emotion dysregulation and empathy“ (12).

*Intercultural Readiness Check* (IRC) is a tool that assesses people's ability to build and maintain good work relationships with individuals from different cultures. It consisted in 28 items and five-pointed Likert scale was used. Six dimensions were investigated - intercultural sensitivity, intercultural communication, intercultural relationship building, conflict management, leadership and tolerance for ambiguity. The test was validated and the level of reliability was calculated, too. The values of Cronbach's Alpha for most of the factors were close and above 0,80. Only for conflict management it was 0,59, and for leadership - 0,70. The tool was generally applied in research into the business field in order to be achieved organically (11).

Kelly and Meyers developed *The Cross-Cultural Adaptability Inventory* (CCAI) with the aim to assess people's readiness to interact with partners from different cultures and to adapt to foreign cultures (13). The questionnaire had 50 items and six-pointed Likert scales was used. Four dimensions are revealed - emotional resilience, flexibility and openness, perceptual acuity, and personal autonomy. High level of reliability is calculated ( $\alpha=0,90$ ). However, the authors argued about the reliability of the tool (14). Davis and Finney reported statistically significant differences between individual factors in their study (15), but on the other hand, Bazgan and Norel found "adequate reliability using test and retest" (16). The scale was used as a tool in many scientific researches in the field of education and medicine. For example, it was used to assess the effect of training on increasing the intercultural effectiveness of immigrant physicians from in Canada (17). The CCAI was used for measuring the cultural competence of future dentists, too (18). In 1976, Ruben developed *Behavioural Assessment Scale for Intercultural Competence* (BASIC), with the aim to assess intercultural communication skills, considering people's

behaviour (19). The tool consisted in eight items and seven dimensions - display of respect, interaction posture, orientation to knowledge, empathy, task-related roles, relational roles, interaction management, and tolerance for ambiguity. The BASIC originally was designed to assess the IC skills of two roommates – one native and the other – foreigner. That which may be of interest was the fact that the instrument had not been used as a tool for self-assessment but as a tool, which the subjects had used to assess each other's skills (20). Three types of behaviour were distinguished - competent communicators in intercultural situations, communicators with potential for successful intercultural communication and communicators with difficulties in intercultural communication (21).

Intercultural sensitivity was the object of Bhawuk and Brislin research that developed the *Intercultural Sensitivity Inventory* (ICSI). The tool was aimed to examine people's ability to recognize the specific characteristics of intercultural interaction and to adapt appropriately their behaviour. The questionnaire consisted of 46 items with seven-pointed Likert scale. The value of the reliability coefficient for the College of Business sample was 0,84 (22). The questions were unified into two groups. The first group consisted of 16 questions, which were equal and aimed to examine people's opinion about the living in USA and China. The second group questions aimed to assess the flexibility and open-mindedness. The research was applied with MBA students and students who lived in foreign dormitories. As a result, the researchers concluded that collectivism and individualism were the basis of intercultural sensitivity. On the other hand, Sincorope and al. pointed that the tool did not consider the influence of foreign language skills and competences on building intercultural sensitivity (21).

Altshuler and al. used the tool to examine the extent to which the intercultural sensitivity of pediatric trainees had increased because of specialized intercultural training (23). Greenholtz applied the instrument to assess intercultural competence in the context of transnational education (24).

**Table 1.** Description of intercultural assessment tools

<b>Assessment tool</b>	<b>Reliability (Cronbach's alpha)</b>	<b>Purpose</b>	<b>Structure</b>	<b>Dimensions</b>	<b>Application field</b>
IDI	> 0,80	To measure the orientations towards cultural differences	50 items with 10 demographic questions; Self-assessment	<ul style="list-style-type: none"> <li>- Denial;</li> <li>- Defence;</li> <li>- Minimization;</li> <li>- Acceptance;</li> <li>- Adaptation;</li> <li>- Encapsulated marginality</li> </ul>	Education field; Individual and group development of IC;
ICQ	0,82	To measure the IC effectiveness	23 items with 7-point Likert Scale Self-assessment	<ul style="list-style-type: none"> <li>- Interpersonal skills;</li> <li>- Team effectiveness;</li> <li>- IC uncertainty;</li> <li>- IC empathy</li> </ul>	Business field;
IRC	>0,80	Ability to establish and maintain effective working relationships with people who have different cultural backgrounds.	102 items with 5-point Likert scale; Self-assessment	<ul style="list-style-type: none"> <li>- IC sensitivity;</li> <li>- IC communication;</li> <li>- IC relationship building;</li> <li>- conflict management;</li> <li>- leadership;</li> <li>- tolerance for ambiguity</li> </ul>	Education and business field;
CCAI	0,90	Assesses one's readiness to interact with members from another culture and one's ability to adapt to another culture.	50 items with 6-point Likert scale ; Self-assessment	<ul style="list-style-type: none"> <li>- emotional resilience;</li> <li>- flexibility and openness;</li> <li>- perceptual acuity;</li> <li>- personal autonomy</li> </ul>	Education, medicine and other contexts to promote cultural awareness;
BASIC	0,80	to assess individuals' intercultural communication Competence based on their actions.	8 items with 4-point and 5-point Likert Scale; Peer assessment	<ul style="list-style-type: none"> <li>- display of respect;</li> <li>- interaction posture;</li> <li>- orientation to knowledge;</li> <li>- empathy;</li> <li>- self-oriented role behaviour;</li> <li>- interaction management;</li> <li>- tolerance for ambiguity</li> </ul>	Individual development of intercultural communication between roommates with different cultures;
ICSI	0,84	individual's ability to respond to, recognize, and acknowledge cultural differences in intercultural encounters	46 items with 7-point Likert Scale; Self-assessment	collectivism and individualism	Education, medicine and business field;
IES	0,87	competencies critical for effective interaction with people who are different from one another	20 items with 5-point Likert Scale; Self-assessment	<ul style="list-style-type: none"> <li>- Behavioural flexibility;</li> <li>- Interacting relaxation;</li> <li>- Interacting Respect;</li> <li>- Message Skills;</li> <li>- Identity Maintenance ;</li> <li>- Interaction Management</li> </ul>	Education, Individual and group development of IC;

In 2010, Tamara Portalla and Guo-Ming Chen developed the *Intercultural Effectiveness Scale* (IES). Firstly, the questionnaire had 76 questions but after the validation, the number of questions reduced to 20. Five point Likert Scale was used. The reliability parameter was

calculated and its value was 0,87 (25). Six dimensions were revealed: message skills; interaction management; behavioural flexibility, identity maintenance, interaction relaxation and interacting respect. The tool was used in numerous scientific researches. The IES

was used as a main tool in a research of the intercultural effectiveness of local and foreign students of Middle East Technical University, Turkey (26). The tool was applied in another research as one of four instruments to investigate the effectiveness of intercultural training during English language classes in Shanghai Dianji University (27). Bates and Rehal applied the IES with the aim to assess the level of intercultural skills and competences of Carnegie Mellon University students (28).

For the purpose of the current study, three main criteria were set – reliability level, structure and scope (**Table 1**). Summarizing the theoretical information we could conclude that for each assessment tool a high level of reliability of internal consistency of the questionnaires was calculated using Crombach's Alpha parameter. When designing a research methodology the researchers should consider that, the authors argue about the CCAI reliability. A Likert scale was used to all assessment tools in order to reveal to which extent the given statements have been related to the respondents. All questionnaires were designed as self-assessment tools, except the BASCI tool where the research subjects assessed each other's skills and competences. Most of the examined tools were used in order to track the effect of

intercultural competence training mainly in the field of education and health care. However, three of the instruments (ICQ, IRC, and ICSI) were applied in the business field and could assess employees' skills and the competences to work efficiently in intercultural teams.

Based on the theoretical analysis, we could unify in four groups the intercultural dimensions that the presented tools examined - communication competence, intercultural attitudes, emotional interactions and intercultural behaviour (**Table 2**). We related the IES, IRC and ICQ tools to the group that examined communication skills in an intercultural environment. The questionnaires that reflected people's ability to distinguish and accept cultural differences, to be flexible and adaptive in the intercultural interactions we assigned to the group of intercultural attitudes. We related in this group the CCAI, BASIC, and IES tools. The questionnaires that assess people's ability to identify and adapt appropriately his/her behaviour in order to achieve effective intercultural interaction belong to the group of intercultural behaviour dimensions. We associated in this group the IDI, IRC, ICSI, and IES assessment tools.

**Table 2.** Dimensions of intercultural assessment tools

Dimensions	IC assessment tools
Communication competence	IES, IRC, ICQ
IC Attitudes	CCAI, BASIC, IES
Emotional Interactions	CCAI, IDI, ICQ
IC Behaviour	IDI, IRC, ICSI, IES, BASIC

Referring to the comparative theoretical analysis, we could indicate the strengths and weaknesses of the presented IC assessment tools (see table 3) On the one hand, these seven tools possessed a high level of reliability. They did not require many resources and were relatively cheap research methods. These tools did not take much time respondents to fill the questionnaires and scientists to process the results. The questionnaire structure allowed the researchers to conduct the inquiry online using the possibilities of the contemporary IT platforms. This gave the opportunity to access a large number of respondents regardless of time and place. On the other hand, however, the tools

should be adapted and validated to the specific research conditions before applying them. They were not applicable to all fields of human activity. For this reason, it was obligatory for the researchers to define correctly the aim and the tasks in order the researchers to choose the best assessment tool. Additionally, the scientists should consider that the answers to the questions depend on the emotional status of the respondents. Therefore, this type of assessment tools should be used in combination with other research methods in order to gain detailed and reliable information concerning the research goals.

**Table 3. Strengths and weaknesses of intercultural assessment tools**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- High test reliability;</li> <li>- Easy to implement;</li> <li>- Do not take much time</li> <li>- Access to more respondents</li> <li>- Relatively cheap research methods</li> </ul>	<ul style="list-style-type: none"> <li>- Strong dependence on the current condition emotional state of the respondents;</li> <li>- Not directly applicable to all areas of human activity;</li> <li>- Need for validation to the specific conditions and field of activity</li> </ul>

## DISCUSSION

The intercultural competence was a research subject to many authors and in relation to this were designed many reliable tools to assess it. These tools could be applied in diverse areas of human activities. Important prerequisite is the tools to be adapted to the concrete conditions and to be used as a unified part of a specifically designed research methodology. Matveev attempted to summarize the IC assessment tools, too. He concluded that there was a multitude of questionnaires, which allowed assessing the intercultural competence. Each one of them focused on different dimensions (11). On the other hand, Rahimi revealed that some of the tools had „inadequate validity evidence“(14). For this reason, it is necessary for all scientists to do additional research concerning the validity of the tools and to assess people’s skills and the competences in real intercultural settings. The examined tools were applied in different areas – education, medicine, management, etc. The detailed knowledge of the assessment tools, their scope and dimensions are a prerequisite for successful design of an experimental pedagogical model for building IC among sports managers, coaches and physical education teachers. Before that, however, the researchers should validate and adapt the questionnaires to the Bulgarian conditions, unifying them in one test battery.

## CONCLUSION

The assessment of intercultural competence level requires the application of specific tools. Many tools exist that could assess diverse intercultural dimensions. The choice of suitable research tools depends on the detailed knowledge of the content of each questionnaire. Moreover, using the tools independently may give incorrect and non-reliable information. This necessitates the integration of the selected tools into a common test battery, which is a prerequisite for a careful and effective development of a pedagogical model for building intercultural skills among future

specialists in the field of sports and physical education.

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