RELIABILITY AND VALIDITY OF THE MATSON EVALUATION OF SOCIAL SKILLS WITH YOUNGSTERS (MESSY II) IN GREEK CONTEXT

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Abstract
The principal aim of this study was to confirm the "Matson Evaluation of Social Skills with Youngsters in a Greek elementary school context. The internal consistency of the MESSY II was also examined. 614 students of the last three grades of primary schools were participated the survey. The Greek version of MESSY-II was used. The validity and reliability of the questionnaire were checked by performing a confirmatory factor analysis and an internal consistency analysis. Also, descriptive statistics, T-test and One way Anova analysis were used. From the analysis we came to the following conclusions: a. The Greek version of MESSY II has shown stable psychometric properties, which partially support its use in Greek elementary school context. b. The sample does not present negative social skills. c. Gender turns out an element that differentiates the factors "Hostile", "Appropriate" and "Inappropriate Assertive” while class attendance for factors "Appropriate" and "Inappropriate assertive”.

Key words: social skills, questionnaire, elementary school, secondary educational level.

Introduction
The mass movements of population along with developments in science and technology, directly related to globalization, come up at frantic pace in today's societies with momentous consequences on their social lives. The educational community is greatly affected and they have no alternative but to keep up with the sweeping reforms should they remain a major factor in shaping societies. To this end, schools and universities are entrusted to provide their students with higher educational standards in order for the latter to respond successfully to present and future challenges. Such an education involves, among others, skills development for more efficient data processing, effective communication and adjustment to different school, university and working environments. According to all the above knowledge is essential for integration and progress in the modern world. These skills are well regarded in the international bibliography and are better known as life-skills which allow individuals to stand out in the society they live in. According to UNICEF (2003), life skills are a whole of social, cognitive and emotional sub-categories. A prominent place among them hold the skills which are seen as superior since they facilitate communication, verbal or non-verbal, and allow individuals, majorities or larger groups to express their views and feelings (Brooks,1984). According to Gresham και Eliot (1990 one possesses social skills when they display socially acceptable behaviour, that is when they smoothly interact with others and stay away from disruptive and antisocial behaviour. Riggio (1986) notes that all the acquired social skills develop into social abilities and strategies and each of them is not an entirety but a total of varied skills. The function of the social skills is not linear and therefore is not the sum of these skills that renders a person socially useful and appreciated. For the skills' acquisition to be effective they should be equally developed. According to the same researcher a key requirement for that is their classification. Cardarella and Merrell (1997) in their research gathered and developed five main aspects of social skillfulness: a. peers relationships, which is how to make friends, assist classmates and be engaged in conversations, b. self-control in compliance with social rules delivering judgment yet at the same time accepting constructive criticism and collaborating in different circumstances, c. applying academic standards such as thoroughly planned studies, completion of assignments, vigilance and consistency throughout the education years, d. showing respect for the rules established in a social group, e. keeping a watchful eye on any violation of freedom of any kind, safeguarding unrestricted expression of feelings, social interaction, welcome of different ideas. According to the researchers the acquisition of the above skills sets the benchmark of children's social integration. Family, school and other social groups make up the basis of social skills teaching (Brooks, 1984), with the family environment being the first grounds where they develop. According to Simons, Whitbeck, Conger και Conger (1991), children's upbringing determines the development of the skills mentioned and wards off criminal behaviour. Family paves the way in the beginning and school supplements and consolidates social learning. Segrin, Hanzal, Donnerstein, Taylor and Domshche (2007) point out that good rapport between teachers and students promotes skills' learning and reduces stress and depression as a result of social isolation. Schools very often have to cope with disruptive behaviour and the introduction of the skills has tackled the problem in many directions: Students communicate better with their peers, develop team spirit, take on responsibilities,
are restrained and improve school performance (Eliot & Gresham, 1991; van Vugt, Deković, Prinzie, Stams, & Asscher, 2012). Schools give the opportunity for social education. Arguably, the most significant school subject is PE, since by its nature young people come into direct contact and interact with each other more than the course of any other lesson. Children take part in games and regular activities. They enjoy learning through movements and plays (Eldar & Ayvaro, 2009). PE teaches how to behave in accordance with rules and also how to take the rough with the smooth as ingredients of positive social behaviour (Biddle, Wang, Kavussanu & Spray, 2003; Filippou, Rakka, Mavridis, 2016). Students are trained to teamwork, exchange of ideas and problem solving at both individual and group level provided lessons proceed in a relaxing atmosphere with the appropriate equipment so that the social skills can flourish (Gregoriadis, Grammatikopoulos, & Zachopoulou, 2013).

The years of schooling in primary and secondary education are crucial in instilling social skills Therefore it is essential that there are sport activities from school age to the final year of secondary education intending to improve physical, mental and emotional health of students (Lv & Takami, 2015). Magotsiou and Goudas (2007) confirmed with their study that if PE lesson planning aims primarily at the progress of social skills then irascible and disruptive students' behaviour in class tends to decline. They also state the significance of teamwork method of learning which if well planned results in maintaining the social values that PE so firmly supports. The principal aim of this study was to confirm the "Matson Evaluation of Social Skills with Youngsters (MESSY-II) (Matson, Neal, Worley, Kozlowski, & Fodstad, 2012) in a Greek elementary school context. The internal consistency of the MESSY II was also examined. The second aim was to examine students’ social skills, as well gender and class attendance as a differentiation factor.

Methods

Participants
614 primary school students of the final three grades across the country joined in the study. The schools were chosen at random but with taking into account the demographic proportion of the rural, urban and suburban areas of the country. These features are presented in table 1.

Table 1. Distribution of sample per gender and class attendance.

<table>
<thead>
<tr>
<th>Gender</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>96</td>
<td>99</td>
<td>115</td>
<td>310</td>
</tr>
<tr>
<td></td>
<td>15.54%</td>
<td>16.12%</td>
<td>18.72%</td>
<td>50.39%</td>
</tr>
<tr>
<td>Female</td>
<td>88</td>
<td>99</td>
<td>117</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>14.43%</td>
<td>16.12%</td>
<td>19.06%</td>
<td>49.61%</td>
</tr>
<tr>
<td>Total</td>
<td>184</td>
<td>198</td>
<td>232</td>
<td>614</td>
</tr>
<tr>
<td></td>
<td>29.97%</td>
<td>32.24%</td>
<td>37.78%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Results

Confirmatory analysis
A confirmatory factor analysis was performed through LISREL 8.80 on the three subscales of the MESSY - II. The hypothesized model consists of three latent variables, namely "Hostile", "Appropriate", and "Inappropriately Assertive". The total variance accounted for by the three factors model was 74.53%. Factor 1 (Hostile) accounted for 39.54% of the variance. Questions 2, 3, 5, 8, 11, 12, 13, 15, 16, 17, 21, 22, 23, 24, 30, 32, 36, 43, 44, 46, 52, 53, 60, 61, 62, 63 and 64 constitute this factor. Factor 2 (Appropriate) accounted for 20.80% percent of the variance. Questions 10, 19, 25, 26, 28, 33, 34, 37, 39, 40, 41, 42, 45, 47, 50, 51, 54, 56, and 59 form this factors. Factor 3 (Inappropriately Assertive) accounted for 14.19% of the variance. Questions 4, 6, 7, 14, 27, 29, 38, 48, 49, 55 and 57 constitute this factor. The fit indices which were considered and their acceptable
values are: namely minimum discrepancy (CMIN or $\chi^2$), degrees of freedom (D.F.), minimum discrepancy divided by the degrees of freedom ($\chi^2$/d.f.) <5, Root Mean Square Error of Approximation (RMSEA) <.08, Standardized Root Mean Square Residual (SRMR) <.05, and incremental indices Comparative Fit Index (CFI) >.90, Normed Fit Index (NFI) (Bentler, 1990; McDonald & Marsh, 1990; Mulaik et al., 1989; Zetou, Filippou, Filippou, Vernadakis, 2016). All are presented in table 3.

Table 3. Model Fit Indices

<table>
<thead>
<tr>
<th>Model</th>
<th>N</th>
<th>$X^2$</th>
<th>DF</th>
<th>$X^2$/DF</th>
<th>NFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>614</td>
<td>6,850.56</td>
<td>1536</td>
<td>4.46</td>
<td>.98</td>
<td>.97</td>
<td>.075</td>
<td>.033</td>
</tr>
</tbody>
</table>

Reliability analysis Questionnaire's reliability control was carried out by calculating the values Cronbach's $a$, for each factor separately. As appears in table 4, the values of the factors were satisfactory ($a>$ .70).

Table 4. Factors' Mean, Standard Deviation & Cronbach's $a$

<table>
<thead>
<tr>
<th>Factor</th>
<th>M</th>
<th>SD</th>
<th>Cronbach's $a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostile</td>
<td>2.20</td>
<td>1.02</td>
<td>.85</td>
</tr>
<tr>
<td>Appropriate</td>
<td>2.16</td>
<td>1.38</td>
<td>.89</td>
</tr>
<tr>
<td>Inappropriately Assertive</td>
<td>2.63</td>
<td>1.19</td>
<td>.86</td>
</tr>
</tbody>
</table>

Mean and standard deviation

As appears in table 4, the sample does not present negative social skills since the factor "Inappropriately Assertive" presents the highest $M$ ($M=2.63$ & SD=1.19) and factor "Hostile" the lowest ($M=2.20$ & SD=1.02).

Differences according to gender

To check whether there were statistically important differences on gender, T-tests for independent samples were performed. The results indicated that statistically significant differences between the two genders owed to "Hostile" ($t_{(612)}=2.57$ & $p<.05$), "Appropriate" $t_{(612)}=7.51$ & $p<.05$), and "Inappropriately Assertive" ($t_{(612)}=8.46$ & $p<.05$) factors. More specifically:

a. "Hostile": male students present higher mean ($M=2.31$ & SD=1.08) than female students ($M=2.10$ & SD=.95).
b. "Appropriate": male students present higher mean ($M=2.51$ & SD=1.48) than female students ($M=1.81$ & SD=1.15).
c. "Inappropriately Assertive": male students present higher mean ($M=3.02$ & SD=1.26) than female students ($M=2.25$ & SD=.97).

Differences according to class attendance

One-way analysis of variance was conducted to indicate any differences in class attendance of the sample.

Results revealed significant statistical differences on the subscales of:

a. "Appropriate" $F_{(2,611)}=5.75$, $p<.05$: male and female students of the 4th class had a higher score ($M=2.61$, SD=1.45) than male and female students of the 6th class ($M=2.12$, SD=1.26).
b. "Inappropriately Assertive" $F_{(2,611)}=5.55$, $p<.05$: male and female students of the 4th class had a higher score ($M=2.84$, SD=1.26) than male and female students of the 6th class ($M=2.44$, SD=1.13).

Discussion and conclusion

What motivated the writers to engage themselves in this project was lack of a reliable and practical assessment tool of social skills in Greek education fields. For this reason, it is considered vital that PE teachers should evaluate students' social skills. By doing so, educators can treat each case separately applying the proper method to each individual case. The reason that makes necessary the built-up of social skills is the overall long time a student spends at school—which substitutes for the role of the family in social balance and second the imposed acquisition of social skills in childhood since it is believed that healthy social relationships and social acceptance are formed in youth. (Matson, Neal, Fodstad, Hess, Mahan & Rivet, 2010). Any problems in social skills progress might lead to a wider range of issues, including troubled relationships, poor communication and antisocial behaviour in adulthood. So, the main aim of this work was to confirm the "Matson Evaluation of Social Skills with Youngsters (MESSY II) (Matson et al, 2012) in a Greek elementary school context.

The internal consistency of the MESSY II was also examined. The second aim was to examine students' social skills, as well as gender and class attendance as a differentiation factor. Regarding the validity of the factors and the structure itself, MESSY II has shown a structure of three oblique factors, coinciding with the findings of Matson et al, 2012). As far as reliability is concerned, results have shown the required internal consistency and temporal stability of the scale, with results similar to the findings of Matson et al, 2012). The finding of this study demonstrate that not only the skills' performance is not adequate but on the contrary it good, given that the "Hostile and Appropriate factor" measure $M=2.20$ and 2.16 respectively.

However, the "Inappropriately Assertive factor is relatively high, $M=2.63$ and PE teachers have to see to it as well as maintain the existing positive results of the survey. As for the students' gender it is a significant factor with males scoring lower than females. The results are in tune with other studies (Meland, Kalvd, Reikera, 2016) according to which girls develop social and linguistic skills at a faster pace than boys who call for greater support and encouragement to participate social skills activities. Researchers say that such differentiation maybe is due to two biological features: The prefrontal brain lobe growth which regulates self-control and impulse restraint takes longer for its final form compared to girls.
Secondly, there are different expectations from girls than boys (Meland, Kaltvedt, Reikera, 2016). Finally, which grade the student is in, is a major factor “Appropriate” and “Inappropriately Assertive” with 4th graders performing worse than 6th graders. This is expected because social skills are not innate. Learning to co-exist with others begins with birth and goes on for the rest of our lives. From the analysis of the results and the discussion that followed we come to the following conclusions: a. The Greek version of MESSY II has shown stable psychometric properties, which partially support its use in the Greek elementary school context. b. The sample does not present negative social skills. c. Gender turns out an element that differentiates the factors “Hostile”, “Appropriate” and “Inappropriate Assertive” while class attendance for factors “Appropriate” and “Inappropriate assertive”.

References


POUZDANOST I NEPOBITNOST MATSON EVALUACIJE DRUŠTVENIH VJEŠTINA S MLADEŽI (MESSY II) U GRČKOM KONTEKSTU

Sažetak

Ključne riječi: društvene vještine, upitnik, osnovna škola, sekundarna obrazovna razina.

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