Validation study of the Questionnaire of Educational and Learning Capital (QELC) in Israel

Nurit Paz-Baruch¹

Abstract
The Actiotope Model of Giftedness regards giftedness as a product of the interaction between the individual and the environment. The aim of this study is to evaluate the validity of the Questionnaire of Educational and Learning Capital (QELC) on 187 primary school students from Israel and to examine whether the educational and learning capitals of the students are associated with general intelligence and academic achievement. In the study correlations were found between social, infrastructural, didactic, organismic, actional, episodic and attentional capitals. No correlations were found, however, between general intelligence and other subscales of the QELC. The results of reliabilities and the two-factor CFA model affirmed the validity of the educational and learning capital using the Hebrew version of QELC.

Keywords: giftedness, actiotope, QELC, general intelligence, academic achievements

¹ Correspondence concerning this article should be addressed to: Dr. Nurit Paz-Baruch, Department of Education, RANGE Center (Research and Advancement of Giftedness and Excellence), University of Haifa, Haifa, 34080, Israel; email: nuritb1@hotmail.com
Introduction

Traditional approaches advocate the perception that giftedness is related to internal entities (Ziegler & Baker, 2013). By contrast, ecological and systemic approaches consider not only the person but also the environment (Davidson, 2009). These models address not only the person's faculties but the impact of the environment to which the person functionally adapts (Gruber, Jansen, Marienhagen, & Altenmueller, 2010; Vicente & Wang, 1998; Ziegler, 2005). The Actiotope Model of Giftedness regards giftedness as a product of the interaction between the individual and the environment in which he or she acts (Ziegler & Baker, 2013; Ziegler, Stoeger & Grassinger, 2011; Ziegler, 2005).

The Questionnaire of Educational and Learning Capital was developed to assess students' educational and learning capital based on the Actiotope Model of Giftedness (Vladut, Liu, Leana-Taşcılar, Vialle & Ziegler, 2013). A cross-cultural validation study performed by Vladut et al. (2013) affirms that the QELC retains satisfactory psychometric properties as well as construct and concurrent validity. No study has yet addressed the educational and learning capital of students in Israel. The present study aimed to examine the validity of QELC in Israel and the possible links between the educational and learning capitals of the student's general intelligence and their academic achievements.

Theoretical background

Giftedness is not only relative inherent to the individual, but also relative to the environment with which that individual actively interacts (Ziegler, Vialle, & Wimmer, 2013). The Actiotope Model addresses giftedness, or excellence, as the consequence of a large number of successful adaptations to environmental determinants (Ziegler, 2005). Therefore, individuals who have attained excellence are those with the most effective action repertoires at their disposal. Furthermore, to successfully pursue excellence in a particular domain a broader range of complex and challenging goals needs to be conquered (Ziegler, 2005; Ziegler, Vialle, & Wimmer, 2013).

Both exogenous and endogenous resources are key factors in the pursuit of excellence. These resources were termed by Ziegler and Baker (2013) "educational capital" and "learning capital", respectively. Educational capital implements external resources used to build up an effective action repertoire. Five forms of educational capital were distinguished by Ziegler and Baker (2013): economic, cultural, social, infrastructural, and didactic. Learning capital implements internal resources which refer exclusively to the individual and his/her ability to expand the scope of education and learning. Learning capital includes: organismic, actional, telic, episodic, and attentional resources (Ziegler, 2005).
Educational capital

Economic capital refers to every kind of wealth, property and money, as well as any other valuables, that can be used by the society to sustain educational and learning processes (Ziegler & Baker, 2013; p. 13). Several studies have shown that the socioeconomic status of families has a strong impact on students’ academic achievements (Bornstein & Bradley, 2003; Sirin, 2005). The family’s socioeconomic status sets the stage for students’ academic performance both by directly providing resources at home and by indirectly providing the social resources that are needed to succeed in school (Coleman, 1988).

Cultural capital includes value systems, thinking patterns, models and the like, which can facilitate or hinder the attainment of learning and educational goals (Ziegler & Baker, p. 27). The research literature contains several suggestions regarding the way culture influences the emergence of excellence. For example, Steele, James and Barnett (2002) assert that women in male-dominated academic majors reported feeling threatened by negative gender stereotypes and were more likely than male students to consider changing their major. Stereotypes held by teachers based on cultural differences among their students, is another example of the effect of cultural capital on student's achievements in school. Leopold and Shavit's study (2011) showed that teachers in Israel tend to be culturally prejudiced, favoring native-born students over immigrants from the Former Soviet Union, for example, and assigning higher grades to the former.

Another form of educational capital is social capital that comprises all persons and social institutions that can directly or indirectly contribute to the success of learning and educational processes (Ziegler & Baker, 2013, p.28). Social educational capital includes, besides teachers, mentors or engaged parents, scholarships, sponsorships and associations.

Numerous studies document the positive influence of social capital on children's and adolescents' well-being (e.g. Parcel, Dufur, & Cornell Zito, 2010; Israel, Beaulieu, and Hartless 2001). Israel, Beaulieu & Hartless, (2001) demonstrated that the students who are more likely to attain higher test scores and to stay in school without dropping out are those that discuss school programs and school issues with their parents, whose parents expect them to attend college and who restrict the amount of TV time at home. Crosnoe (2004) found that student-teacher bonding at school compensates for parent-adolescent emotional distance. Kim and Schneider (2005) noted that active parental participation in postsecondary school guidance programs is more beneficial to students whose parents have a lower level of educational attainment.

Infrastructural capital relates to materially implemented possibilities for actions that permit learning and education to take place (Ziegler & Baker, 2013, p. 28). It includes preschools equipped with high-quality play and learning materials, schools with superior learning media, and more. School resources, including learning materials, computers, student-teacher ratio and other factors have been shown to be important (e.g., Krueger, 2003). For example, the “Dovrat Committee” (2005) in Israel argued that gaps in academic accomplishments between Jewish and Arab students could be bridged by improv-
ing the resources allocated to the Israeli Arab schools. In response, the Ministry of Edu-
cation issued a 5-year plan aimed at improving education in the Israeli Arab schools.

The last form of educational capital is *didactic capital* which addresses the assembled
expertise involved in the design and improvement of educational and learning processes
(Ziegler & Baker, 2013, p. 29). Previous research has shown that a technology-rich
learning environment can promote higher-order thinking skills, learning motivation, and
teamwork (Rosen, 2009; Rosen & Salomon, 2007). One example is the Israeli learning
environment program named "Time To Know" aimed to enrich didactic capital. The
program consists of an interactive core curriculum and a digital teaching platform de-
dsigned for computerized classrooms. Rosen and Beck-Hill (2012) found that the program
favored teacher-student interaction and enriched the number and types of teaching mod-
els employed per class.

**Learning capital**

Learning capital represents endogenous resources intended to assist students in con-
structing an effective action repertoire. The first form that Ziegler and Baker (2013, p.
35) proposed is *organismic learning capital*, which consists of the physiological and
constitutional resources of the individual. Recent research has documented a positive
relationship between physical fitness and academic achievement or other cognitive per-
performance measures (Castelli, Hillman, Buck, & Erwin, 2007; Shephard, 1997). Exercise
was found to be an important contributing factor to different aspects of children’s mental
functioning, central to cognitive development (Tomporowski, Davis, Patricia & Naglieri,
2008).

Another form of learning capital proposed by Ziegler and Baker (2013) is *actional capi-
tal*. By definition, *actional capital* means the action repertoire of a person – the totality
of actions they are capable of performing (Ziegler & Baker, 2013, p. 60). These include
cognitive activities, such as arithmetic skills, movement sequences in sports, and linguist-
sic skills (Ziegler & Baker, 2013; p. 35).

*Telic capital* refers to the availability of learning goals. For example, students who are
alienated from school may have very few or, in extreme cases, no learning objectives
(Ziegler & Baker, 2013; p. 35). The study of Ziegler, Stoeger and Grassinger (2011) on
learning strategies showed that students who demonstrated a more adaptive Actiotope
reported preferential use of goal setting in their learning process, planned their learning
more thoroughly, and made more frequent use of monitoring and regulating strategies
during their learning process.

*Episodic capital* addresses the simultaneous goal and situation-relevant action patterns
that are accessible to the individual (Ziegler & Baker, 2013, p.31). Episodic learning
capital is associated with the experience gained by the student and focuses on the mean-
ingful use of his action repertoire.

Ziegler et al. (2014) maintain that *episodic learning capital* denotes the cognitive re-
sources that help the individual choose the appropriate actions for achieving desired
goals in a given situation. Attainment of excellence is a relevant example of *episodic learning capital*. Most researchers relate to excellence as the end result of a lengthy learning process. As the individual grows and develops, he/she employs at least 10,000 active, concentrated hours of learning episodes (Ericsson, Charness, Feltovich, & Hoffman, 2006; Ericsson, 2007).

Ultimately, Ziegler and Baker (2013) proposed the *attentional capital* that highlights the quantitative and qualitative attentional resources that the individual can apply to learning (p. 35). Gifted students are able to stay focused on an assignment and to selectively attend to relevant stimuli while filtering irrelevant stimuli in a rapid manner (Schweizer, et al., 2000; Schweizer & Moosbrugger, 2004).

**Aims of the study**

The *Questionnaire of Educational and Learning Capital (QELC)* was developed to assess students’ educational and learning capital based on the Actiotope Model of Giftedness (Vladut et al., 2013).

To date, no study has examined the QELC in Israel. The first aim of this study is to investigate the validity of the Hebrew QELC version on fifth grade students. A second aim is to examine the interrelationships between educational and learning capitals, general intelligence and academic achievement.

**Method**

**Participants and procedure**

The participants in this study were 187 fifth grade students from Israel (88 girls, 98 boys; mean age = 10.70, *SD* = 0.4). The students were from five different randomly selected primary schools located in northern Israel. All of the participants completed the Israeli version of the QELC. One hundred twenty-two participants also completed the Raven test and a mathematical achievement test. Participants were volunteers who were not rewarded for their participation in the study. The students and their parents signed informed consent forms.

**Measures**

*Questionnaire of Educational and Learning Capital (QELC)*

The QELC consists of 10 subscales. Each subscale measures one of the 10 types of capital using five different items. All items on the QELC were presented along with a 6-point Likert-type scale ranging from 1 (completely disagree) to 6 (completely agree). The scores ranged from 5 to 30, higher scores reflecting higher levels of the relevant capital. Recently, a cross-cultural validation study showed that the psychometric qualities of the
QELC were predominantly acceptable and that it is, indeed, a reliable cross-cultural questionnaire (Vladut et al., 2013).

**General intelligence**

The entire research population was examined using Raven’s Advanced Progressive Matrix Test (RPMT) (Raven, Raven & Court, 2000). Shortened Raven test containing 30 items (adopted from Zohar, 1990) was used. Each item has a 3 x 3 matrix with a missing cell. For each item, the participant selects the option from among eight possible answers, which completes the given matrix. Items are presented in black ink on a white background, and become increasingly more difficult to solve as the participant progresses through each set. The test time limit is 15 minutes. The range varies from 0 to 30 and denotes the number of problems solved correctly.

**Mathematical achievement test**

The mathematical achievement test was composed of 18 arithmetic problems based on the country's fifth grade curriculum in mathematics. The test time limit was 50 minutes. Some questions were simple exercises requiring basic techniques while others were more complicated, requiring a high level of thinking, problem-solving, reasoning, and integration of information skills and the solicitation of previously assimilated knowledge within new contexts.

The tasks included four operations with whole numbers (addition, subtraction, multiplication, and division), including multistep word problems, entailing comprehension of the place value system, basic understanding of fractions, distinguishing between angles, and knowledge of the properties of triangles and squares.

**Data analyses**

The statistical analyses were performed in two steps.

**Step I:**

The first analysis included reliabilities of the 10 scales of the QELC and correlations between the QELC subscales, general intelligence and mathematical achievement tests. Additionally, an independent T-test was used to examine gender differences in the QELC scales.

**Step II:**

Confirmatory factor analysis (CFA) was performed to examine a two-factor model inclusive of the latent variable of educational capital, composed of economic, cultural, social, infrastructural and didactic forms, whereas the latent variable of learning capital was composed of organismic, actional, telic, episodic and attentional forms. The 'goodness
of fit' model was assessed using the following indicators: comparative fit index (CFI), the Tucker-Lewis index (TLI) and the root mean square error of approximation (RMSEA).

Results

Step I: Reliabilities, descriptive statistics and correlations

The reliabilities of the 10 scales for all the participants ranged within \(0.625 \leq 0.811\) (Cronbach’s \(\alpha\) is displayed in Table 1). An independent T-test was conducted to examine gender differences in the QELC scales. In economic capital girls perceived that they had significantly higher levels (\(M=25.65, SD=3.79\)) than boys did (\(M=24.44, SD=4.30\)) (\(t(184.85)=-1.99; p < .05\)). Additionally, in telic capital, girls perceived having significantly higher levels (\(M=22.62, SD=5.19\)) than boys (\(M=24.35, SD=3.65\)) (\(t(174.39)=-2.65; p < .05\)).

<table>
<thead>
<tr>
<th>Form of Capital</th>
<th>Example item</th>
<th>Cronbach's (\alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Capital</td>
<td>Economic</td>
<td>My family invests money in order that I can improve my academic performance.</td>
</tr>
<tr>
<td>Cultural</td>
<td>I know a lot of people who think that learning and studying are very important.</td>
<td>.742</td>
</tr>
<tr>
<td>Social</td>
<td>I always know where I can find support and advice for learning and studying.</td>
<td>.726</td>
</tr>
<tr>
<td>Infrastructural</td>
<td>My studying environment is well suited to school.</td>
<td>.687</td>
</tr>
<tr>
<td>Didactic</td>
<td>I have very good classroom instruction in all my subjects.</td>
<td>.753</td>
</tr>
<tr>
<td>Learning Capital</td>
<td>Organismic</td>
<td>I feel physically fit when I am learning and studying for school.</td>
</tr>
<tr>
<td>Actional</td>
<td>I know a lot of strategies for learning and studying.</td>
<td>.693</td>
</tr>
<tr>
<td>Telic</td>
<td>I always know precisely what my next learning or studying goal is.</td>
<td>.757</td>
</tr>
<tr>
<td>Episodic</td>
<td>I already have a lot of experience on how to learn and study the right way.</td>
<td>.811</td>
</tr>
<tr>
<td>Attentional</td>
<td>I can focus completely on my learning and studying for school.</td>
<td>.796</td>
</tr>
</tbody>
</table>
Table 2:
Means (M), standard deviations (SD), and correlations for the subscales of the QELC, general intelligence and mathematical achievement test

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Intelligence</td>
<td>17.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.66)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Mathematical achievement test</td>
<td>71.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(20.00)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td>25.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural</td>
<td>23.98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.39)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>23.24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.60)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>24.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.81)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Didactic</td>
<td>23.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.09)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organismic</td>
<td>23.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actional</td>
<td>23.72</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.22)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telic</td>
<td>23.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.59)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Episodic</td>
<td>23.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.80)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attentional</td>
<td>20.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(5.59)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: *P<0.05; **P<0.01
Table 2 contains the means ($M$), standard deviations ($SD$) and correlations for the subscales of the QELC in Israel. Correlations between economic capital and each of the educational capitals (cultural, social, infrastructural and didactic) were low or moderate (ranging from 0.241 to 0.437). Correlations between cultural, social, infrastructural and didactic capital were moderate or high (ranging from 0.509 to 0.661). Correlations between each of the learning capital forms (organismic, actional, telic, episodic, and attentional) were moderate or high (ranging from 0.545 to 0.754). High correlation was found between actional, telic and episodic capital (ranging from 0.690 to 0.774).

Significant weak correlation was found between students' scores on the Raven test and infrastructural capital ($r = .182$). No correlations were found between student's scores on the Raven test and other subscales of the QELC (Table 2). Significant correlations were found between students' scores on the mathematical achievement test and social, infrastructural, didactic, organismic, actional, episodic and attentional capitals. Economic, cultural educational capitals and telic learning capital were not correlated to the mathematical achievement test (Table 2).

**Step II: Confirmatory Factor Analysis**

Confirmatory Factor Analysis was performed based on data obtained from 187 fifth-grade students who completed the QELC. We hypothesized a two-factor model in which the latent variable of educational capital comprises the economic, cultural, social, infrastructural and didactic forms, while the latent variable of learning capital comprises the organismic, actional, telic, episodic and attentional forms (Figure 1).

Factor loading estimates showed that nearly all indicators were strongly related to their supposed latent factors. Only the economic capital was a low indicator (0.48). High correlation between the educational and learning capital dimensions (0.93) is shown. The fit indices suggested that the two-factor CFA model fits the data well for the most part: $\chi^2(23) = 39.67, p= 0.17$, CFI = 0.96, TLI = 0.97, RMSEA = 0.062.

**Discussion**

This study evaluated the validity of the QELC on primary school students in Israel and examined whether the educational and learning capitals of the students tested were associated with general intelligence and academic achievement. The results of both the reliabilities and the two-factor CFA model confirmed the validity of the educational and learning capital using the Hebrew version of QELC. The results display no correlation between general intelligence and other subscales of the QELC, except for a significant weak correlation with infrastructural capital. A linkage between academic achievements in mathematics and social, infrastructural, didactic, organismic, actional, episodic and attentional capitals is suggested. Gender differences were found with regard to economic and telic capitals.
Based on prior theoretical assumptions a two-factor CFA model was constructed. The fit indices indicated that the two-factor CFA model fit the data well to a great extent. These findings are in line with results of Vladut et al. (2013) which confirmed the validity of the QELC construct in China, Germany and Turkey.

Gender differences were found with regard to economic and telic capitals, in favor of the girls. It seems that girls set more goals and regulating strategies in their learning process compared to boys. These results are in line with Vladut et al. (2013) and Leana-Taşcilar (2015) studies. Ablard and Lipschultz (1998) found that girls reported greater use of self-regulated learning strategies.

Correlation analysis showed that there were significant correlations between academic achievements in mathematics and the infrastructural and didactic educational capitals. However, no correlations were found between cultural and economic educational capitals and academic achievements in mathematics. It seems that the didactic resources at school and the learning materials both at home and at school are what may underlie

Figure 1:
Two-factor CFA model of Educational and Learning Capital for the Hebrew version
higher achievements. These findings corroborate previous studies that highlight the importance of environmental factors for learning (e.g. Stoeger & Sontag, 2012).

Furthermore, correlations were found between academic achievements in mathematics and the social capital but not as regards the cultural capital. Social educational capital refers to the way in which society has a direct influence on the child and the extent to which parents or friends assist children in learning, whereas the cultural educational capital focuses on values and attitudes that can assist or delay students' achievements (Ziegler & Baker, 2013). These findings suggest that academic achievements of Israeli students are influenced by social, rather than cultural, resources.

This study shows that the economic capital was not correlated with achievements in mathematics. This can be explained by the fact that parents of students with learning difficulties and those of high achievers equally invest financial resources in their children's learning. For example, The Israel National Council for the Child (2013), published statistics revealing that 40% of students in fifth through ninth grade are assisted by private tutoring in English and/or mathematics. Further research is needed to examine the relationship between economic capital and academic achievements.

The results reveal links between academic achievements in mathematics and organismic, actional, episodic and attentional capitals, but not with telic learning capital. These results are in line with research conducted by Leana-Taşcılar (2015) that examined correlations between the educational and learning capitals of 4th, 7th, and 10th graders. It seems that high achieving students were more likely to report using strategies for studying and having expertise in effective learning and studying strategies. However, these students did not report setting learning goals for themselves. These findings depict a unique and interesting image of the learning culture of Israeli students.

The current study found no correlation between general intelligence and the educational and learning capitals. This finding indicates that general intelligence and educational and learning capitals are two separate entities and supports the assumption of the Actiotope Model of Giftedness which maintains that giftedness is sustained by the interaction between the individual and the environment (Ziegler & Baker, 2013; Ziegler, 2005). The lack of a distinct connection between general intelligence and educational and learning capitals highlights the importance of QELC as an additional tool for identifying gifted children.

To sum up, the study affirms that the QELC can derive psychometric assets in an Israeli sample. The correlation analyses confirm that the QELC is a useful tool for detecting gifted students and they validate the assumption that academic success is influenced by both the individual and the environment. These study findings can be grounded directly in school practice, as they shed light on important aspects of teaching and learning processes that hold promise for enriching opportunities for attaining excellence and giftedness.

Acknowledgments

The author wishes to thank Prof. Dr. Albert Ziegler and Prof. Roza Leikin for guidance in performing the study.
References


