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Quality of School Life. A Cross-cultural Study of Greek and Scottish Secondary School Pupils

A. KARATZIAS, V. PAPADIOTI-ATHANASIOU, K. G. POWER & V. SWANSON

Introduction

Quality of School Life (Q.S.L.), which had been used as an indicator of pupils' welfare (Anderson, 1982), could be defined as a general sense of well-being resulting from pupils' involvement in school life and their engagement in the school environment. To date, some theoretical formulations theories have been developed to conceptualise Q.S.L. (Michalos, 1985). The present research follows the school satisfaction approach in relation to the construction of the scale used. School satisfaction/dissatisfaction is the cognitive appraisal of Q.S.L. (Huebner, 1994a) and is considered a subjective construct (Baker, 1998).

Past research has shown that high levels of school satisfaction are positively associated with acceptance of educational values, commitment to school (Wehlage *et al*., 1989; Goodenow & Grady, 1992), greater motivation to learn (Keys & Fernandes, 1993), and levels of learning, since pupils become more receptive to knowledge (Samdal, 1998). It has also been associated with lower school drop-out rates (Okun *et al*., 1986; Ekstrom *et al*., 1986) and higher achievement according to one's ability (Voekl, 1995). Pupils who perceive their school positively are also less likely to experience health problems (Jessor, 1991; Nutbeam & Aaro, 1991). Lower levels of school satisfaction have been found to be linked to behavioural problems, poor school achievement (Baker, 1998), school alienation (Fine, 1986) and development of unhealthy behaviour (Samdal *et al*., 1998), since pupils tend to rebel against the school authority and may turn to 'marginalised' peer groups (Perry *et al*., 1993).

Why Compare Scotland and Greece?

Scotland and Greece differ in their life style and culture. Greece is a collectivist culture, because of its Eastern influences, whereas Scotland is an individualistic one. Furthermore, Scotland has a well-established secondary educational system, whereas in Greece there have been major reforms recently (e.g. entrance system to higher education). There has been much protest by Greek pupils and teachers about secondary and higher education recently. As noted in Cameron *et al*. (1983), the educational system in Greece has followed the traditional model (classical studies, moral education), which may not satisfy the needs of pupils and their parents or those of modern life (e.g. scientific progress). Secondary education

focuses on the acquisition of knowledge. The educational system in Scotland, on the other hand, is predominantly modern and includes social and cultural competence and self-development (The Scottish Office, 1992).

Cross-cultural comparisons of Q.S.L. levels among European countries may provide authorities with evidence about areas of school dissatisfaction that need to be improved and which policies work best for pupils, although differences between countries may also be due to cultural, methodological and response factors.

Previous Cross-cultural Research on Q.S.L.

Previous cross-cultural research on General Quality of Life (Q.O.L.) and on Q.S.L. has revealed significant differences across nations (Diener *et al*., 1995). Veenhoven (1995), in a comparative study of university students in 38 nations and of the general population in 28 nations, found that there were differences between the UK and Greece as regards happiness and life satisfaction. On a scale of 1–7, ratings were higher for British students than for Greek students (5.22 and 5.20 respectively, and 4.42 and 4.83 respectively). In the general population, the British seemed happier and more satisfied with their life than the Greeks (5.68 and 5.45 respectively and 4.37 and 4.54 respectively).

Samdal *et al*. (1998), in a study about student satisfaction in Finland, Latvia, Norway and Slovakia among 11-, 13- and 15-year-olds, found that students from Latvia and Norway are more satisfied with their school than those from Finland and Slovakia, although high levels of satisfaction were reported in all countries. But in all countries the older students tended to be more satisfied than the younger ones. In addition, the proportion of girls who were satisfied outweighed boys in all the countries. The authors attributed their findings to differences in the educational systems and recent reforms in some countries (e.g. Latvia), but attributed gender differences to pupils' school expectations, which mostly favours girls. But there is no cross-cultural study on Q.S.L. in secondary schools for Scotland and Greece.

Explaining Q.S.L. Cross-cultural Differences

One of the theories that explains cross-cultural differences in relation to general happiness is the Folklore theory (Veenhoven, 1995) where life satisfaction is the reflection of nationally-held notions which depend on tradition and culture rather than on the current circumstances of the country. Inglehart (1990) suggested that France, Italy and the US could be characterised as cultures of 'happiness', despite unfavourable living conditions for a relatively large part of the population.

Differences in culture and political systems could also account for cross-cultural differences in students' perception of school (Hirch, 1994). For example, Eastern European schools have focused on knowledge acquisition in a rather authoritarian setting (traditional views). Western educational settings, on the other hand, are more concerned with students' development (Hirch, 1994). There is also student involvement in teaching practices, which has been found to be associated with higher satisfaction (Voekl, 1995). One might therefore expect lower school satisfaction in Eastern Europe, despite recent political changes, than in Northern or Western Europe (Samdal *et al*., 1998). However, there have also

been studies which found no differences between countries with different educational and political systems. Entwistle *et al*. (1989), in a comparative study on Hungarian (n = 602) and British (n = 516) 12–15-year-old students, found that pupils perceived their schools very similarly.

Diener *et al*. (1995) discussed why there may be cross-cultural differences in general well-being. First, some collectivist cultures may devalue individual expression and impose conformity to group ideas. Second, response style in some cultures may permit more intense expression of attitudes. Third, some cultures may perceive positive responses as more desirable. Fourth, the time people have spent thinking about a particular domain of life may influence their responses. Social desirability could also influence responses in relation to a particular life domain. In collectivist cultures, people are more likely to respond more positively so as to be seen in a favourable light by researchers. Finally, differences may be due to objective conditions related to a particular life domain.

Individual school culture may also be responsible for cross-cultural differences. Dawson (1985), in a study of 86 maladjusted pupils drawn from 6 schools, found that the levels of school satisfaction were very different across schools. These differences could be attributed to pupils' experiences as a result of the school environment and culture. Ainley *et al*. (1991) found that differences in Q.S.L. between schools cannot be explained by differences in background between pupils.

We shall now present some of the previous research on the association between Q.S.L. and the variables of interest. Due to lack of research on Q.S.L. and secondary school pupils, the literature also covers other populations (e.g. university students) and General Quality of Life (Q.O.L.).

Q.S.L. and Demographics

Previous research on the association between demographics, such as school grade and gender, and Q.S.L. is more or less inconclusive. With regard to school grade, Okun *et al*. (1990) in a study of primary and secondary school pupils found that the higher the grade, the lower the levels of school satisfaction. However, Huebner (1991a), in a study of primary school pupils, found no grade effects on general life satisfaction. With regard to gender differences in relation to school satisfaction, there is evidence that there are no gender effects on Q.S.L. (Shmotkin, 1990; Huebner, 1991; Bulcock *et al*., 1991; Hong & Giannakopoulos, 1994), with a few exceptions in the area of Q.O.L. (Andrews & Witney, 1976).

Q.S.L. and School Stress

Although there are no studies which assess the relationship between Q.S.L. and school stress, school could be a stressful environment which negatively affects school satisfaction. Elias (1989) suggested that major strains of adolescence include overemphasising success and lack of support in schools. Major changes in academic and social domains and greater expectations concerning academic achievement (Eccles *et al*., 1993) also characterise adolescence (Wenz-Gross *et al*., 1997). The learning environment in secondary school is also more demanding and complex than in primary school. Eccles *et al*. (1993) also suggest that the student-teacher relationship is incongruent during adolescence

because students seek independence and teachers require more discipline from them.

Q.S.L. and Well-being

With regard to the association between Q.O.L., and hence Q.S.L., and general well-being, it has been suggested that they share great variances (Diener, 1984). This association indicates that Q.S.L. is also linked to out-of-school factors (e.g. health).

Q.S.L and Personality

The relationship between self-esteem and life satisfaction has produced moderate positive correlations (Dew & Huebner, 1994). Huebner (1994b), in his study on primary and secondary school children in the US, found a positive and strong relationship between life satisfaction and self-esteem. Baker (1998), in her study of elementary school pupils ($n = 129$), also reported a moderately negative but significant correlation between the two ($r = -.38$, $p < .001$). Affectivity is a personality construct. There have been no studies on the relationship between Q.S.L. and affectivity. However, negative affectivity has been found negatively correlated with measures of general life satisfaction, job satisfaction and happiness (Stokes & Levin, 1990).

The Present Research

Taking into account previous research on the relationship between Q.S.L. and other factors, we put forward the hypothesis that Q.S.L. is negatively related with negative affectivity and school stress and positively related with well-being, self-esteem and positive affectivity, across cultures. The predictive value of individual factors on Q.S.L. was analysed to see whether Q.S.L. levels were predicted by the same factors across cultures. It may be worth noting that there is no research on Q.S.L. that uses the regression analysis to study the predictive value of specific factors towards Q.S.L., especially cross-culturally, and that the variables selected to be studied in relation to Q.S.L. have been shown as being closely related to Q.S.L. or Q.O.L. We have also selected variables that apply to pupils as a whole, variables that are amenable to change (Anderson, 1982) and variables which have been shown to influence behaviour.

Method

A set of self-report scales was administered to a sample of secondary school pupils from grades 4, 5, and 6 from one school in the Stirling area, Scotland, and one from the Agrinio region in Greece. Both areas are considered to be rural and both schools are considered to be of medium size. The two samples were matched for gender and number of pupils per grade (Table I) but not for parental educational and socio-economic status. However, Q.S.L. was affected by neither variables across cultures.

TABLE I. Demographic Characteristics by Nationality

Variable	Greek No (%)	Scottish No (%)	Comparison
Gender			
Males	87 (24.4)	76 (21.3)	
Females	98 (27.5)	95 (26.7)	$X^2 = .2$, Df = 1, $p < .625$
Grade			
4th	75 (20.9)	55 (15.3)	
5th	77 (21.4)	93 (25.9)	$X^2 = 4.5$, Df = 2, $p < .064$
6th	34 (9.5)	25 (7.0)	
Age (Sd)	16.1 (.9)	15.2 (.8)	$t = -9.5$, Df = 356, $p < .000$***

Key : * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Instruments

Pupils were asked to complete 6 self-reported measures, each of which is briefly described below.

Quality of School Life Scale

The Quality of School Life Scale was designed to assess aspects of school life that could be a source of satisfaction or dissatisfaction for pupils. It consists of 14 domains, each containing four statements (e.g. I am satisfied with the timetable at school). Each statement was rated from 1 to 4. The construction of the scale was based on the Scottish Office guidelines (McGlynn, 1996) for self-evaluation of schools, using performance indicators, and on previously used Q.S.L. scales for its style and format (Banjamin & Hollings, 1995; Keith & Schalock, 1994; Huebner, 1991b; Epstein & McPartland, 1976).

Demographic Measures

Pupils were asked to report their age/school grade, gender, school, and their parents' educational and socio-economic status.

Student Stress Inventory (Children's Version) (Alban Metcalfe et al., 1982)

SSI is a standardised scale designed to assess pupil's stress in school. It consisted originally of 40 items (e.g. school marks, levels of noise in school), but seven were excluded from the original scale, since they were irrelevant to the Greek educational system. Pupils responded in a four-item scale ranging from 0 (no stress at all) to 3 (extreme stress). The higher the score produced from the sum of individual item scores, the higher the levels of school stress experienced.

P.G.I. General Well-being Scale (Verma et al., 1983)

The P.G.I. General Well-being Scale assesses general well-being of various age groups. For the purposes of the study, phrasing of the items (e.g. feeling

productive, creative, nervous) was slightly amended to make it more suitable for younger children and to cater for cultural differences. A new 4-point answering scale was introduced to fit in with the new format of the scale.

Hare Self-esteem Scale (HSES) (Hare, 1985)

HSES is a standardised 30-item scale (e.g. I am not as popular as other people of my age) that assesses self-esteem of school age children in three areas (peer, home and school). It provides both a general self-esteem score and sub-scores for different areas. Pupils respond in a four-item agree-disagree scale.

Positive and Negative Affect Schedule (PANAS) (Watson et al., 1988a)

This is a standardised scale, which consists of 20 adjectives, ten assessing positive affect (e.g. excited) and ten assessing negative affect (e.g. upset). Pupils respond in a five-point scale, ranging from 'very slightly' to 'not at all'.

Sample

A sample of 359 pupils was drawn from one secondary school in Scotland and one in Greece. Approximately one third of the students was sampled from each school. Response rate was almost 100%. The questionnaires were distributed in two classes, each selected randomly from grades 4 to 6. The Greek sub-sample consisted of 75 (20.9%) fourth graders, 77 (21.4%) fifth graders and 34 (9.5%) sixth graders and the Scottish sub-sample of 55 (15.3%) fourth graders, 93 (25.9%) fifth graders and 25 (7.0%) sixth graders. The two sub-samples were also matched for gender. The Greek one consisted of 87 males and 98 females and the Scottish one of 76 males and 95 females.

Most fathers (70%) and mothers (71%) of the participants had not attained higher education. Their socio-economic status was between 2nd and 3rd classes (intermediate, skilled, partly skilled) for the majority of both fathers (78%) and mothers (44%), whereas a percentage of 46% of mothers was economically inactive. These differences were statistically significant within and between cultures.

Although there were no statistically significant differences between the two groups regarding the number of pupils per school grade, the mean age of Greek pupils (16.1) was significantly higher than that of Scottish pupils (see Table I).

Results

Reliability of the Scales

Table II indicates that high reliability coefficients were obtained for Q.S.L. total for both Greek (.907) and Scottish (.899) pupils. Concerning Q.S.L. domains, moderate to high reliability coefficients were obtained for Greeks (.512–.832) and Scots (.439–.766). Standardised scales also obtained high reliability coefficients for both Greeks (.643–.872) and Scots (.548–.904) across measures.

TABLE II. Reliability Coefficients of the Scales Used

Variable	No of items	Greek (n = 186)	Scottish (n = 173)	Total (n = 359)
Q.S.L. total	14 (domains)	.907	.899	.922
Q.S.L. domains				
Curriculum	4	.582	.570	.706
Attainment	4	.551	.538	.679
Teaching Methods	4	.655	.591	.564
Teaching Style	4	.666	.588	.737
Learning	4	.636	.755	.704
Personal Needs	4	.661	.596	.691
Assessment	4	.522	.606	.636
Ethos (School Factors)	4	.707	.764	.749
Ethos (Individual Factors)	4	.651	.624	.660
Support	4	.520	.647	.602
Career	4	.832	.766	.838
Relationships	4	.660	.621	.649
Environmental Factors (objective)	4	.655	.668	.639
Environmental Factors (subjective)	4	.512	.439	.518
School stress	33	.872	.904	.923
Well-being total	20	.864	.868	.877
Positive affectivity	10	.800	.830	.813
Negative affectivity	10	.788	.803	.853
Self-esteem total	3 (domains)	.643	.548	.607

Key : * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Differences between Greeks and Scots Regarding Q.S.L. Total and Domains

Table III shows that a substantially higher school satisfaction (Q.S.L.) mean was obtained by Scottish pupils (162.7) than by Greek pupils (138.3). Significantly higher scores were also obtained by Scots in comparison to Greek pupils in all separate domains ($p < .000$) except for Objective Environmental factors (sport facilities, equipment, availability of social and food services) where Greeks obtained a significantly higher mean (10.5) than Scottish (9.8) pupils.

For the Greek sample, higher school satisfaction was found in the Relationships (relationships with teachers, other pupils and friends at school) (11.3), Learning (motivation, progress in learning, critical thinking, interaction with others) (11.0) and Support (from teachers, friends, other pupils at school) (10.9) domains. The lowest means were found in Subjective Environmental factors (decoration, technical equipment, distance from home, safety) (8.3), Teaching Style (continuity, depth, integration, timing) (8.5), Personal Needs (activities, interests, learning needs) (8.6) and Curriculum (structure, number of subjects, timetable, class activities) (8.7).

For Scottish pupils, higher means were obtained for Career (preparation for job, new skills, self-awareness) (12.8), Relationships (12.7), Support (12.5) and Learning (12.3) and the lowest for Objective (9.8) and Subjective (10.0) Environmental factors.

TABLE III. Q.S.L. Total and Domain Scores by Nationality

Variable	Greek	Scottish	Comparison
	Mean (Sd)	Mean (Sd)	
Q.S.L. total	138.3 (23.6)	162.7 (19.6)	t = 9.5, Df = 285, p < .000***
Q.S.L. domains			
Curriculum	8.7 (2.1)	11.6 (1.8)	t = 13.6, Df = 348, p < .000***
Attainment	9.8 (2.2)	12.3 (1.5)	t = 12.1, Df = 350, p < .000***
Teaching Methods	10.1 (2.3)	11.1 (1.9)	t = 4.4, Df = 350, p < .000***
Teaching Style	8.5 (2.5)	11.2 (1.8)	t = 11.5, Df = 349, p < .000***
Learning	11.0 (2.6)	12.3 (2.2)	t = 5.1, Df = 355, p < .000***
Personal Needs	8.6 (2.6)	11.0 (2.1)	t = 9.3, Df = 351, p < .000***
Assessment	9.4 (2.3)	11.6 (2.3)	t = 8.7, Df = 351, p < .000***
Ethos (School Factors)	9.5 (2.8)	10.9 (2.5)	t = 5.4, Df = 353, p < .000***
Ethos (Individual Factors)	10.7 (2.7)	12.1 (2.0)	t = 5.4, Df = 349, p < .000***
Support	10.9 (2.4)	12.5 (2.5)	t = 5.9, Df = 347, p < .000***
Career	10.4 (3.3)	12.8 (2.2)	t = 7.9, Df = 352, p < .000***
Relationships	11.3 (2.3)	12.7 (2.0)	t = 5.9, Df = 347, p < .000***
Environmental Factors (objective)	10.5 (2.7)	9.8 (2.6)	t = -2.4, Df = 344, p < .016*
Environmental Factors (subjective)	8.3 (2.3)	10.0 (2.1)	t = 6.9, Df = 342, p < .000***

Key : * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The Link between Gender/Grade and Q.S.L.

For both Greek and Scottish samples, females produced significantly ($p < .05$) higher total scores than male pupils in Q.S.L. Scottish males (158.7) and females (165.4) also presented significantly ($p < .000$) higher Q.S.L. total means than Greek male (133.0) and female (142.1) pupils respectively (see table IV).

Additionally, for both samples taken separately, Q.S.L. total means were not found to significantly differ across 4th, 5th, and 6th grades. For Greeks, the higher Q.S.L. rates were found in 6th grade (140.5), followed by 4th (139.1) and 5th (136.2) grade. A similar pattern was found for Scottish pupils, as 6th and 4th graders scored the highest mean (163.9), followed by 5th graders (161.3). Cross-cultural comparisons also revealed that Scottish pupils significantly ($p < .000$) underpinned Greek pupils across all the different grades in relation to Q.S.L. total (see Table IV).

Cross-cultural Differences between Greek and Scottish Pupils in Relation to School Stress, Well-being, Self-esteem and Affectivity

Table V shows that Greek pupils scored significantly higher on school stress and negative affectivity. However, Scottish pupils scored significantly higher in well-being, self-esteem, school self-esteem and home self-esteem. The two samples were not found to significantly differ in relation to levels of positive affectivity and peer self-esteem.

Peer self-esteem was not found to be associated with Q.S.L. total for either Greek or Scottish pupils. But school stress was not found to be significantly associated with Q.S.L. for Greek pupils only. However, well-being and other personality measures presented moderate to high correlations for Scottish pupils

TABLE IV. Association between Demographics and Q.S.L. Total by Nationality

Variable	Greek	Scottish	Comparisons
	Q.S.L. mean (Sd)	Q.S.L. mean (Sd)	
Gender			Greeks (males vs. females)
Males	133.0 (25.9)	158.7 (21.7)	>t = -2.3, Df = 143, p < .020* Scottish (males vs. females)
Females	142.1 (20.8)	165.4 (17.9)	t = -2.0, Df = 137, p < .048* Greeks vs. Scottish (males) t = 5.9, Df = 119, p < .000*** Greeks vs. Scottish (females) t = 7.7, Df = 161, p < .000***
Grade			
4th	139.1 (26.6)	163.9 (20.4)	Greeks (4th vs. 5th vs. 6th) F = .4, Df = 2,143, p < .686, n.s.
5th	136.2 (23.2)	161.3 (16.6)	Scottish (4th vs. 5th vs. 6th) F = .3, Df = 2,138, p < .751, n.s.
6th	140.5 (16.2)	163.9 (25.9)	Greeks vs. Scottish (4th) t = 5.3, Df = 108, p < .000*** Greeks vs. Scottish (5th) t = 7.1, Df = 123, p < .000*** Greeks vs. Scottish (6th) t = 4.0, Df = 50, p < .000***

Key : * p < 0.05, ** p < 0.01, *** p < 0.001

TABLE V. School Stress, Well-being, Affectivity and Self-esteem by Nationality. Associations between Q.S.L. Total and School Stress, Well-being, Affectivity and Self-esteem by Nationality

	Means (Sd)			Correlations with Q.S.L. total	
Variable	Greek	Scottish	Comparison	Greek r	Scottish r
School stress	56.4 (14.2)	35.0 (16.6)	t = −11.9, Df = 294, p < .000***	−.014	−.318***
Well-being total	55.4 (9.8)	61.3 (7.7)	t = 5.9, Df = 318, p < .000***	.221*	.355**
Positive affectivity	34.0 (6.5)	34.9 (7.1)	t = 1.2, Df = 342, p < .233	.400***	.495***
Negative affectivity	27.8 (7.4)	17.3 (6.2)	t = −13.9, Df = 331, p < .000***	-.303***	-.372***
Self-esteem total	84.1 (9.9)	90.3 (10.3)	t = 5.6, Df = 334, p < .000***	.228**	.368***
Self-esteem domains					
School self-esteem	25.4 (3.7)	29.3 (4.2)	t = 9.3, Df = 341, p < .000***	.223**	.476***
Peer self-esteem	28.0 (4.2)	28.5 (4.6)	t = 1.0, Df = 345, p < .307	.103	.005
Home self-esteem	30.5 (5.1)	32.4 (5.3)	t = 3.4, Df = 348, p < .001***	.266***	.334***

Key : * p < 0.05, ** p < 0.01, *** p < 0.001

and low to moderate correlations for Greek pupils. In addition, peer self-esteem was not found to be associated with Q.S.L. total for both samples. As shown in Table V, the highest positive correlations for Greek pupils were found between positive affectivity and Q.S.L. total (r = .400), followed by Q.S.L. associations with home self-esteem (r = .266), self-esteem total (r = 228), well-being total (r = .221) and school self-esteem (r = .223). A quite high negative correlation was also produced between Q.S.L. total and negative affectivity (r = −.303).

Just like for the Greek pupils, for the Scottish pupils the highest correlation was produced between positive affectivity and Q.S.L. total (.495), followed by the associations between Q.S.L. total and school self-esteem (r = 476), self-esteem total (r = .368), well-being total (r = .355) and home self-esteem (r = .334). Moderate negative correlations were produced between Q.S.L. and negative affectivity for Scottish pupils (r = −.372), followed by the association between Q.S.L. total and school stress (r = .318) (see Table V).

Predictors of Q.S.L. for Greek and Scottish Pupils

As illustrated in Table VI, positive affectivity was the most powerful predictor of Q.S.L. total for both Greek and Scottish pupils, although for the Scottish sample it explained a higher percentage of Q.S.L. variance (24.5%) than for the Greek sample (16.0%). School self-esteem was the second best predictor for the Scottish pupils (22.7% of the variance explained), whereas for the Greek pupils it was negative affectivity (9.2%). However, it must be emphasised that all correlates analysed in the present study were able to predict Q.S.L. more strongly for Scottish than for Greek pupils.

TABLE VI. Predicting Q.S.L. Total from School Stress, Well-being, Affectivity and Self-esteem by Nationality

Variable	Nationality	BETA	F(1)	p <	R^2
School stress	Greek	140.0	.02	.88	.000
	Scottish	176.1	14.2	.000***	.101
Well-being total	Greek	109.0	6.7	.01**	.049
	Scottish	124.0	8.8	.004**	.065
Positive affectivity	Greek	87.2	27.1	.000***	.160
	Scottish	113.2	42.4	.000***	.245
Negative affectivity	Greek	165.9	14.1	.000***	.092
	Scottish	184.2	19.9	.000***	.138
Self-esteem total	Greek	93.7	7.3	.008**	.052
	Scottish	98.6	21.0	.000***	.135
Self-esteem domains					
School self-esteem	Greek	103.6	7.1	.009**	.050
	Scottish	94.3	39.9	.000***	.227
Peer self-esteem	Greek	122.1	1.5	.221	.011
	Scottish	162.2	.0	.951	.000
Home self-esteem	Greek	99.5	10.6	.001***	.071
	Scottish	124.0	17.2	.000***	.112

Key : * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Conclusion

The scales used in the present study seemed highly reliable in both cultures, but more especially for Greece, where there is a lack of standardised measures. The new Q.S.L. scale could be used by educational authorities and schools in Greece to test satisfaction/dissatisfaction with school. However, additional data are needed to further establish reliability and produce norms for all scales, including Q.S.L. It may also be preferable to use the scale as a whole rather than by individual domains at this stage, since higher reliability coefficients were produced for the total, across cultures. The high associations between Q.S.L. total and other standardised measures provided a positive indication for its concurrent validity. Q.S.L. total and domain totals were found significantly higher in the Scottish sample than in the Greek one.

Several reasons could explain cross-cultural differences between Greece and Scotland in relation to Q.S.L. First, the present Q.S.L. scale was designed with school/educational quality criteria set by the Scottish educational authorities. Hence, Greek authorities may value different Q.S.L. domains that are not examined in the present scale. Thus, Greek pupils reported lower Q.S.L. levels on the current measure. We could also attribute cross-cultural differences to the culture of each country and their views about current educational systems (Veenhoven, 1995). Thus, Greek pupils may be less satisfied with their school life because of their negative views about the educational system. In addition, we could attribute these findings to actual differences across the systems. Traditional educational practices may have led to dissatisfaction with the educational system among parents and pupils in Greece (Cameron, 1983). Individual school cultures may also be responsible for these differences (Dawson, 1985), considering that only two schools were included in the present study. More schools should have been included from both advantaged and disadvantaged regions. One should also conduct studies that include other EU Member States.

For the Greeks, highest school satisfaction was obtained in the Relationships, Learning and Support domains and the lowest in Subjective Environmental factors, Teaching Style, Personal Needs and Curriculum. For the Scottish pupils, higher means were obtained in Career, Relationships, Support and Learning and the lowest in Objective and Subjective Environmental domains. However, apart from Subjective Environmental factors, different domains with lower ratings were identified across the two cultures, indicating that educational authorities in each country should consider different school factors for improvement. Nutbeam *et al.* (1998) have pointed out that by increasing pupil's participation in decision making at school, levels of Q.S.L. may also increase.

Females scored higher in Q.S.L. total across cultures than males and Scottish males and females scored higher on Q.S.L. total than Greek males and females. Previous research on gender and Q.S.L. was in favour of no differences across the sexes (Huebner, 1991; Bulcock *et al.*, 1991). However, research in the area of general Q.O.L. has confirmed this finding (Andrews & Witney, 1976). Similarly to previous research (Okun *et al.*, 1990), sixth graders seemed most satisfied with their school life, although for the Scots there were no differences in the means between 4th and 6th graders.

For both Greek and Scottish pupils it was found that positive affectivity is the best correlate and predictor for increasing Q.S.L. Several reasons, however,

would account for the strong effects of personality factors on Q.S.L. Firstly, personality, and especially affectivity, colour the whole range of our perceptions (DeNeve & Cooper, 1998). Secondly, Q.S.L. has been measured as a rather long-term condition in the present study and consequently any other situational effects may have been ignored. In addition, personality traits may have predicted strongly Q.S.L. because school populations are considered to be homogeneous. Therefore, personality effects may have become stronger, due to small effects of any other population characteristics (Diener, 1996).

A weakness of the present research was that Greek and Scottish samples were not matched for parental educational and socio-economic status, although there is evidence that such factors can influence Q.S.L. total (Bulcock *et al*., 1991). However, Q.S.L. total was not affected by fathers' and mothers' educational level and socio-economic status for both Scots and Greeks. But there were also significant differences for Scottish and Greek pupils taken separately. Thus, further research, with more controlled samples between and within cultures, is required to verify the findings of the present study.

A general conclusion is that the two cultures differ in the levels of Q.S.L. However, we are unable to say whether these differences are due to cultural variations or any other methodological biases of the present research. Secondly, regardless of any cultural differences between Scotland and Greece, Q.S.L. was better predicted by personality factors. Thus, determinants of Q.S.L. may be the same for different cultures, although such a hypothesis should be tested further in studies with more countries as participants.

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