

Children's and Adolescents' Conceptions of Happiness at School and its Relation with their  
own Happiness and their Academic Performance

Belén López-Pérez<sup>a</sup> & Belén Fernández-Castilla<sup>b</sup>

<sup>a</sup>Liverpool Hope University, Department of Psychology, UK

<sup>b</sup>University of Leuven, Faculty of Psychology and Educational Sciences, KU Leuven,  
Belgium

\*Correspondence should be addressed to Belén López-Pérez (Department of Psychology,  
Liverpool Hope University, Hope Park, L16 9JD, Liverpool, UK) Email address:  
[lopezpb@hope.ac.uk](mailto:lopezpb@hope.ac.uk)

“This is the peer reviewed version of the following article: (Lopez-Perez, B. & Fernandez-Castilla, B. Children's and Adolescents' Conceptions of Happiness at School and its Relation with their own Happiness and their Academic Performance. Journal of Happiness Studies. This article may be used for non-commercial purposes in accordance with the Springer Terms and Conditions for Self-Archiving.”

## **Children's and Adolescents' Conceptions of Happiness at School and its Relation with their own Happiness and their Academic Performance**

Children and adolescents spend a great deal of their time at school. Ideally, the school's role is to bring each student to their maximum academic and personal potential (Sylva, 1994). At school, children do not only learn about different subjects but they also develop as a person by establishing meaningful social connections, and advancing their social and emotional skills (e.g., Galindo & Sheldon, 2012). Thus, school is one of the most influential contexts in children's and adolescents' development, along with family (Bronfenbrenner & Morris, 1998).

Children's and adolescents' happiness has been recently analysed in *The Good Childhood report* (The Children's society, 2015), showing that around 25% of the children surveyed were not happy at their school. In fact, being happy at school was highlighted as one of the main concerns for children and adolescents. Overall, this report suggests that there is still a considerable number of children and adolescents who do not feel happy in the school which may have a deep impact not only on their academic performance but also on their social and emotional development.

### **Happiness at school**

Most research on happiness at school has been focused on studying the possible determinants. For example, some studies have looked at the role of positive school experiences (i.e., high school satisfaction, good school climate, appropriate school connectedness, adequate social support, and sense of community; Suldo, Riley, & Shaffer, 2006), finding a link between these factors and happiness in the school setting (Danielsen, Samdal, Hetland, & Wold, 2009), and even lagged effects such that positive school experiences influenced future happiness, which, at the same time, facilitated future positive school experiences (Stiglbauer, Gnambs, Gamsjäger, & Batinic, 2013).

One of the variables that has received considerable attention in the literature is academic achievement, as it constitutes somewhat an objective indicator of children's and adolescents' school performance (e.g., Socha, Swain, & Sundree, 2013). Although early research did not find a significant association between happiness and academic achievement (Huebner, 1991b; Huebner & Alderman, 1993), recent research has shown the link between both variables (Cheng & Furnham, 2002; McCullough & Huebner, 2003), and across different cultures (Kirkcaldy, Furnham, & Siefen, 2004). Most recent studies have shown the reciprocal causal direction between happiness/subjective well-being and academic performance (Quinn & Duckworth, 2007).

Although these studies have contributed to the study of happiness in the school setting, they have only focused on the possible determinants of happiness overlooking what children and adolescents understand by being happy at school. Studying children's and adolescents' beliefs about happiness at school is important for different reasons. First, previous research has found that scientific definitions of happiness may not always correspond to how people define happiness and may even vary across cultures (e.g., Joshanloo et al., 2016). In fact, previous research has already suggested that questionnaires may not capture subtle nuances that may be present in people's definitions (Carlquist, Ullberg, Delle Fave, Nafstad, & Blakar, 2016). Thus, gathering children's and adolescents' conceptualizations may provide additional valuable information about children's and adolescents' happiness. Second, previous research with adults has found that people's self-reports of happiness predicted only some domains reflected in people's conceptualizations (Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011). Thus, it can be important to test whether this (a) also applies to children and adolescents, and (b) whether it does in a specific context (i.e., school). Finally, previous research has found that people's beliefs can shape their behaviour (i.e., Ajzen, 2011). Thus, by studying children's and

adolescents' conceptualization we can know more about how children and adolescents strive for happiness in the school context (Diener, 2009; Furnham & Cheng, 2000).

### **Conceptualizations of Happiness**

When it comes to defining happiness, a distinction between scientific and lay is necessary. From a scientific perspective, two different approaches have emerged. First, the *hedonic* conceptualization which understands happiness, or subjective well-being, as the presence of positive affect and life satisfaction (e.g., Diener, 2000). Second, the *eudaimonic* perspective which defines happiness as meaning, self-actualization, and personal growth (e.g., Deci & Ryan, 2008). More recently, some authors have reconciled both traditions including both approaches in their conceptualizations of happiness (e.g., Seligman, 2011).

However, scientific definitions of happiness may not necessarily match lay people's conceptualizations or lay theories of happiness. From the few studies available with children and adolescents, results have shown that their conceptualizations of general happiness tend to be more specific and applied to concrete domains. Research conducted with Portuguese adolescents (Freire, Zenhas, Tavares, & Iglésias, 2013), Brazilian children (Giacomoni, Souza, & Hutz, 2014), and Spanish children and adolescents (López-Pérez, Sanchez, & Gummerum, 2015) found that *school* was an important domain mentioned in their conceptualizations of general happiness. However, the way happiness in that domain was conceptualized was slightly distinct in the different samples. Whereas Portuguese adolescents and Brazilian children defined happiness in regards to school as learning, Spanish children and adolescents conceptualized it as having good grades and being praised. Thus, these results support the need to further study what children and adolescents understand by being happy at school, as this may be different depending on the age and/or gender of the child. Developmental changes in children's and adolescents' conceptualizations of happiness at school are likely as previous

research with adults has shown that happiness conceptualizations differed from young to late adulthood. Namely, while young American adults were more likely to conceptualize happiness as excitement, older adults were more likely to define happiness as peacefulness (Mogilner, Kamvar, & Aaker, 2011). Furthermore, from a developmental perspective there are important cognitive and social changes that take place from childhood to adolescence which may affect the way children and adolescents conceptualize happiness. First, reasoning about concepts evolves from relying on concrete examples (e.g., happiness means eating cake) to a more abstract level (e.g., happiness means feeling emotionally supported) (e.g., Kroger, 2005). In this regard, previous research has shown that the capacity for abstract reasoning starts at the age of 12 (Marini & Case, 1994), which seems to be related to maturational changes in the rostral prefrontal cortex experienced from that age onwards (Durmontheil, 2014). Thus, is likely that children's and adolescents' conceptualizations may be different as they may engage in different levels of reasoning about the concept of happiness. Second, during adolescence there are important changes at a social level as peers become a main reference (Buhrmester, 1998) and there is a decline in the family relationships (Tsai, Telzer, & Fuligni, 2013). These social changes have been linked to identity changes, as adolescents think intensively about themselves and who they want to be (e.g., Lerner & Steinberg, 2009). Thus, this can impact considerably the definitions provided by adolescents, making them different from the ones provided by children. In this regard, previous research on general conceptualizations of happiness have pointed out at potential differences between children and adolescents. Namely, children's conceptualizations targeted mainly hedonic components of happiness (e.g., positive feelings), whereas adolescents' conceptualizations started including some eudaimonic components (e.g., ultimate goal in life) (López-Pérez et al., 2015).

### **The Present Research**

The present research first aimed to analyse children's and adolescents' conceptualization of happiness in the school setting and test whether there were age and gender differences in those conceptualizations. Given the results obtained in previous research about general happiness we expected that: (a) possible hedonic conceptualizations related to positive feelings or enjoyment may be mentioned more by children than adolescents, as children tend to reason based on concrete examples (Giacomoni et al., 2014; López-Pérez et al., 2015); (b) possible conceptualizations related to academic achievement may be mentioned more by adolescents as previous research found that this age group gave more importance to that component than children (López-Pérez et al., 2015); (c) possible eudaimonic conceptualizations related to meaning, self-actualization, and personal growth may be mentioned more by adolescents as previous research on general happiness found such pattern (López-Pérez et al., 2015); and (d) given that previous research has obtained mixed results in regards to gender (Freire et al., 2013; Giacomoni et al., 2014; López-Pérez et al., 2015) we explored the obtained pattern.

A second aim of the paper was to explore the possible relations between children's and adolescents' conceptualizations of happiness, their self-reported levels of happiness at school, and their academic performance. To our knowledge, no previous research has investigated such relations. Therefore, we explored whether all or some conceptualizations may be positively related to self-reported happiness and academic achievement (i.e., happiness conceptualizations → self-reported happiness → academic achievement and academic achievement → self-reported happiness → happiness conceptualizations). This research may contribute to the existent literature, by assessing whether the way children and adolescents conceptualize happiness at school does actually positively correlate with their own levels of happiness and their academic performance. Finally, regarding happiness and academic

performance, we expected a positive relation between both variables as this has been extensively documented in the previous literature (e.g., Quinn & Duckworth, 2007).

## Method

### Participants

Two-hundred and seventeen children and adolescents from two different public schools in a large urban city of Spain participated in this study. Children were aged 9 and 10 year-olds ( $N = 104$ ;  $M_{age} = 9.51$ ;  $SD = 0.50$ ; 49% females) and adolescents were aged 15 and 16 year-olds ( $N = 113$ ;  $M_{age} = 15.56$ ;  $SD = 0.49$ ; 45% females). All participants were from middle-class socio-economic backgrounds. In regard to the ethnicity, 93% were Caucasian, 5% Latin American, and 2% Asian. These different ethnic origins are representative of the current diversity of the city according to the last report published by the Spanish Institute of Sociological Studies (CIS study 3087, 2016). Children and adolescents samples were collected in both schools as they comprised children from Year 1 (6-year-olds) to Year 10 (16-year-olds) (see Table 1).

### Procedure

Permission was obtained from the school principals and teachers. Only children who consented and obtained their parents' consent were included. Thus, out of the 452 children and adolescents, 217 obtained consent and participated in the study<sup>1</sup>. Testing was conducted at the schools.

---

<sup>1</sup> There were no differences between children who took part in the study and those who did not participate in terms of age ( $t(450) = .10$ ,  $p = .92$ , Cohen's  $d = 0.009$ , 95% CI [-.60, .54]), academic achievement ( $t(450) = .76$ ,  $p = .45$ , Cohen's  $d = 0.06$ , 95% CI [-.43, .19]), and gender ( $\chi^2 = 4.39$ ,  $p = .11$ , Cramer's  $V = .10$ ).

The first part of the research was conducted in late October/beginning of November, as by that time Spanish children/adolescents have spent around two months of the new academic year and are familiarized with the school routine. In this first phase, children/adolescents firstly created a personal code (initial of the first name and date of birth), which was used to match the rest of the data through the following phases. After that, they were told that the aim of the study was to know their opinion about being happy at school and were asked to define what it means to be happy in the school in their own words. This procedure has been successfully used before to investigate children's and adolescents' beliefs about general happiness (e.g., Freire et al., 2013; Giacomoni et al., 2014; López-Pérez et al., 2015). There was no maximum word limit and children/adolescents had ten minutes to complete this part of the study.

The second phase of the study, took place in February as at that time neither children nor adolescents had exams or any term break which may affect their happiness ratings at school. Children and adolescents were again asked to provide their personal code and to complete the *School Happiness Single-Item Scale* (van de Wetering, van Exel, and Brouwer, 2010; Spanish version by Díaz, Rodríguez-Carvajal, Moreno-Jiménez, Blanco, Gallardo, Valle, & Dierendonck, 2006). This measure assesses happiness at school through a single item (e.g., "Please grade your happiness at school") that ranges from 0 (very unhappy) to 10 (very happy). Although there may be other scales that assess life satisfaction in students samples (e.g., Galidez & Casas, 2011), we did not find them appropriate as they did not evaluate happiness as a whole in the school context.

Finally, in the third phase of the study, once the final school term was over, the school provided the students' grade point average (GPA, onwards) of the academic year, that is, the average of the grades obtained throughout the whole academic year. Only those subjects that were present in both age groups were considered in the GPA calculation (i.e., Maths, Science,



Spanish, English, Physical Education, and Arts). After the third phase, a research assistant debriefed children and adolescents.

### **Coding**

Qualitative analysis of children's and adolescents' conceptualizations of happiness at school was conducted by four researchers. Responses were coded using QDA-Miner Lite software using an iterative process in which themes were generated and then refined based on multiple revisions of transcripts. The first step consisted in open coding wherein two investigators proposed an initial set of possible themes based on their independent review of 40 responses. In the second step, another two investigators reviewed the initial themes to test their fit with the data and to decide whether additional themes were needed. A preliminary coding manual (see Appendix A) was then created with definitions and examples. After that, two investigators (one of each previous coding wave) coded the 217 responses based on the coding manual. As part of their training, coders coded twenty randomly selected answers and then met to discuss to reach consensus. Inter-rater agreement for the different categories identified was above 80%, ranging from 73% to 97%, with Kappas above .84.

### **Data analysis**

To investigate whether participants showed differences in their frequencies of opting for particular content categories of happiness at school depending on age and gender we computed a set of log-linear analyses (see Wickens, 1989). First, the automatic model search of the Statistical Package for the Social Sciences (SPSS 21.0) saturated hierarchical log-linear (hi-log-linear) procedure was run to find the most parsimonious final model. A final model having a value greater than  $p = .05$  is considered to be fitting. The model fit ( $\chi^2$ ) of the hi-log-linear procedure is presented in the text. To estimate single parameters ( $z$  values), a log-linear model was computed.

To examine the direct and indirect effects on happiness conceptualizations, self-reported happiness at school, and academic performance, we used path analysis techniques with the software AMOS. The proposed path analysis explored (1) the relation between conceptualizations of happiness and self-reported happiness at school, which may be positively related to academic performance; and (2) the relation between academic performance and self-reported happiness, which may be positively related to conceptualizations of happiness. Given that these two models were not directly comparable because the first analysis was univariate, whereas the second analysis was logistic multivariate, we used the Akaike Information Criterion (AIC) fit index to compare both models. This index is commonly used to compare non-nested models estimated with the same data, with lower index values indicating a better fit of the model (Hooper, Coughlan, & Mullen, 2008). It is important to note that by using path analysis it is not possible to establish causal relations. Therefore, the aim was not choosing/selecting one path analysis model over the other, but to explore which model had a better fit. Thus, the remaining model could also be theoretically meaningful. Finally, given that age differences were expected two path analyses were performed, one for each age group (i.e., children and adolescents). For each path model, only the conceptualizations of happiness that were significantly related to self-reported happiness at school or/and school performance were included.

## **Results**

### **Children's and Adolescents' Conceptualizations of Happiness at School**

Only 62 (29%) participants used two different concept categories in their definitions of happiness at school. We analyzed whether the number of content or concept categories differed by age but found no differences,  $t(215) = -.81, p = .41, d = .13$ . Table 2 displays the frequency of happiness at school concept categories by age and gender.

For the concept category ‘being with friends’, the hi-log-linear analyses produced the final model of friends  $\times$  age. The log-linear analysis showed significant differences between both age groups (see Tables 2 and 3), with children mentioning this conception significantly more often than adolescents. There was no other significant interaction (Table 3)

For the concept category ‘helping’, the hi-log-linear analyses produced the final model of helping  $\times$  age. The log-linear analysis showed significant differences between both age groups (Tables 2 and 3), with adolescents mentioning this conception significantly more often than children. There was not any other significant interaction (Table 3).

The hi-log-linear analyses for happiness at school as ‘having leisure time’, ‘learning’, ‘enjoyment’, ‘getting good grades’, and ‘being praised’ did not produce a significant model for any interaction, only the main effect of the category was significant. Furthermore, the analysis showed that none of the groups differed significantly from each other (Tables 2 and 3).

### **Children’s Self-Reported Happiness at School and Academic Performance**

We tested whether there were age differences in self-reported happiness at school, finding that children ( $M = 7.95$ ,  $SD = 2.02$ ) were significantly happier than adolescents ( $M = 6.19$ ,  $SD = 2.03$ ;  $t(215) = 6.38$ ,  $p = .001$ ,  $d = .87$ ). Furthermore, children ( $M = 7.06$ ,  $SD = 1.70$ ) also obtained a higher GPA than adolescents ( $M = 6.18$ ,  $SD = 1.41$ ;  $t(215) = 4.17$ ,  $p = .001$ ,  $d = .57$ ). Overall, correlation analyses showed a significant positive relation between self-reported happiness at school and academic performance for children and adolescents (Table 4).

We also tested whether there were gender differences, finding that female ( $M = 7.32$ ,  $SD = 1.95$ ;  $M = 6.73$ ,  $SD = 1.48$ ) and male participants ( $M = 6.78$ ,  $SD = 2.39$ ;  $M = 6.50$ ,  $SD = 1.72$ ) did not show differences in their self-reported levels of happiness at school ( $t(215) = -1.81$ ,  $p = .07$ ,  $d = .25$ ) and their academic performance ( $t(215) = -1.01$ ,  $p = .31$ ,  $d = .14$ ), respectively.

### **Relation between Happiness Conceptualizations, Self-Reported Happiness at School, and Academic Performance**

Before conducting path analyses, we tested which conceptualizations of happiness were related to self-reported happiness and performance at school for each age group. To that aim, we used a non-parametric Mann-Whitney U test for comparing the happiness scores in those who mentioned each conceptualization with those who did not. Non-parametric tests were used because the proportion of children/adolescents who mentioned some happiness conceptualizations was too different in magnitude compared to those who did not mention them (see Table 5). As shown in Table 5, for adolescents, those who conceptualized happiness at school as ‘being with friends’, ‘being praised’, and ‘helping’ scored significantly higher in happiness than those who did not conceptualize being happy at school in those terms. In contrast, those adolescents who did not conceptualize happiness at school as ‘having leisure time’ scored higher in happiness. Regarding children, none of the conceptualizations of happiness were related to their scores on happiness at school (Table 5). Regarding performance at school (Table 6), in adolescents, those who conceptualized happiness as ‘being with friends’ showed a lower school performance than those who did not conceptualize happiness in those terms. Concerning children, those who conceptualized happiness as ‘learning’ had a better academic performance.

After these exploratory analyses, two path models were fitted exclusively for the group of adolescents, as for the group of children there was only a significant relation between the conceptualization of happiness as ‘learning’ and academic performance. Therefore, path analysis was not necessary as multiple regression models cannot be run at the same time. Hence, for children, a regression analysis showed that the conceptualization of happiness as ‘learning’ was a positive predictor of school performance ( $\beta = .22, p < .05, R^2 = .04$ ).

For adolescents, in the first path model (Figure 1a) conceptualizations of happiness as ‘being with friends’, ‘helping’, ‘being praised’, and ‘not having leisure time’ were positive predictors of self-reported happiness at school which at the same time was a positive predictor of school performance. Furthermore, we also established a direct path between the conceptualization of ‘being with friends’ and ‘being praised’ to academic performance, as both categories were predictive. In the second path model (Figure 1b) the arrows went in the opposite direction: school performance was a positive predictor of happiness at school, which at the same time was a positive predictor of conceptualizations of happiness as ‘being with friends’, ‘helping’, ‘being praised’, and ‘not having leisure time’. As in model 1, we established again a direct path from school performance to the conceptualization of happiness as ‘being with friends’ and ‘being praised’.

At the beginning, both models were fitted without setting any correlations between the different conceptualizations of happiness, but the models did not show an adequate fit in the different Goodness-of-fit (GOF) indices<sup>2</sup> (model 1: CFI=.74, RMSEA=.15, SRMR=.12, GFI=.89; model 2: CFI=.82, RMSEA=.13, SRMR=.09, GFI=.92). Looking at the modification indices, correlations between the conceptualizations friends – being praised, being praised – leisure, and helping - leisure were suggested. We explored further these associations through a Pearson’s Chi-Squared test and found that in fact those conceptualizations were significantly

---

<sup>2</sup> RMSEA is considered acceptable at values lower than 0.06 and SRMR with values lower than 0.08 (Hu & Bentler, 1999). CFI and GFI are considered to give evidence of acceptable fit at values over a .90 threshold (Bentler & Bonett, 1980), and excellent fit at .95 (Hu & Bentler, 1999).

related<sup>3</sup> and therefore correlations between them were included in both models. The direct paths from conceptualizations of happiness as ‘being with friends’ and ‘being praised’ to school achievement (or in the opposite direction for path analysis model 2) were non-significant and were deleted from the model. The final fit of both models was good with all the GOF indices at the recommended thresholds (Hooper et al., 2008) (model 1: CFI = .97, RMSEA = .06, SRMR = .06, GFI = .96; model 2: CFI = .99, RMSEA = .01, SRMR = .053, GFI = .97).

In regard to model 1 (Figure 1a), all standardized regression coefficients were statistically significant and the model accounted for 32.3% of the variance of self-reported happiness at school and 26.9 % of the variance of academic performance. We calculated the indirect effects between conceptualizations of happiness and school performance using a bootstrap method to obtain 95% confidence intervals. All standardized indirect effects were statistically significant (Happiness as ‘not having leisure time’-Academic performance = -.12 (95% CI: -.25, -.03), Happiness as ‘helping’-Academic Performance = .12 (95% CI: .03, .20), Happiness as ‘being with friends’ - Academic Performance = .16 (95% CI: .06, .27), Happiness as ‘being Praised’ – Academic Performance = .16 (95% CI: .06, .25), indicating that the conceptualizations of happiness at school in terms of ‘helping’, ‘being with friends’, ‘being praised’, and not ‘having leisure time’ were significantly related to self-reported happiness at school and indirectly related to academic performance through self-reported happiness. It is important to note, that whereas the direct effect of the conceptualizations of happiness as ‘being with friends’ ( $\beta = .08, p = .49$ ) and ‘being praised’ ( $\beta = -.01, p = .94$ ) over school performance was non-significant, their indirect effect remained significant. Concerning model 2 (Figure 1b),

---

<sup>3</sup> Significant association between ‘being with friends’ and ‘being praised’ ( $X^2 = 6.21, p < .05$ , Contingency Coefficient (CC) = .22), between ‘being praised’ and ‘leisure’ ( $X^2 = 5.55, p < .05, CC = .22$ ) and between ‘helping’ and ‘leisure’ ( $X^2 = 5.88, p < .05, CC = .22$ ).

all standardized regression coefficients were statistically significant and the model accounted for 27.9% of variance of self-reported happiness at school, 18.7% of variance of happiness as ‘not having leisure time’, 11.5% of happiness as ‘helping’, 8.6% of happiness as ‘being praised’, and 8.7% of happiness as ‘being with friends’. Standardized indirect effects between school performance and conceptualization of happiness were also significant (Happiness as ‘not having leisure time’-School Performance =  $-.23$  (95% CI:  $-.35, -.14$ ), Happiness as ‘helping’ - School Performance =  $.18$  (95% CI:  $.10, .28$ ), Happiness as ‘being with friends’- School Performance =  $.15$  (95% CI:  $.07, .24$ ), and Happiness as ‘being praised’- School Performance =  $.15$  (95% CI:  $.08, .25$ )), indicating that school performance is directly related to self-reported happiness at school and indirectly and significantly related to conceptualizing happiness as ‘helping others’, ‘being with friends’, and ‘being praised’, and to not conceptualizing happiness as ‘having leisure time’. As in model 1, whereas the direct effects between school performance and happiness as ‘being praised’ ( $\beta = .01, p = .93$ ) and happiness as ‘being with friends’ ( $\beta = .10, p = .45$ ) were non-significant, the indirect effects remained significant. The AIC value for model 1 was 44.68, whereas for model 2 it was 35.06. This result suggested that model 2 had a better fit than model 1.

### **Discussion**

Previous research on children’s and adolescents’ well-being at school has mainly been focused on how contextual factors (e.g., relationship with the teacher, students’ participation in the school decision-making process, or school support to students’ competence) may impact students’ happiness and academic achievement (e.g., McLaughlin & Clarke, 2010; Suldo & Huebner, 2006). However, this previous research has overlooked what children and adolescents understand themselves by being happy and how this relates to their own levels of happiness and academic achievement.

### **Children’s and Adolescents’ Conceptualizations of Happiness at School**

Results from children's and adolescents' qualitative data showed that seven different categories or conceptualizations emerged in both samples. For children, happiness as 'being with friends' was the most mentioned category. This result does not correspond with previous literature on children's general conceptualizations of happiness as children mentioned more frequently positive feelings or enjoyment (Giacomoni et al., 2014; López-Pérez et al., 2015). However, this result highlights the importance of connectedness for children's and adolescents' well-being at school, as it was the most mentioned category by children and the second most mentioned by adolescents. This supports previous findings on the importance of fulfilling the need for relatedness in the school setting for children's and adolescents' well-being (McLaughlin & Clarke, 2010). For adolescents, happiness as 'getting good grades' was the most mentioned category. This result is coherent with previous findings on adolescents' general conceptualizations of happiness (López-Pérez et al., 2015). This may be explained by a potential increase in their extrinsic motivation due to the way academic achievement is assessed in the school context (Gillet, Vallerand, & Lafrenière, 2012; Lepper, Corpus, & Iyengar, 2005). In fact, this was also the second most mentioned category by children in the study, which supports previous evidence on the role of external rewards to undermine intrinsic motivation (Deci & Ryan, 2016). Interestingly, children and adolescents mentioned to the same extent the categories of happiness as 'leisure', 'learning', 'enjoyment', 'getting good grades', and 'being praised'. These results are different from previous evidence on children's and adolescents' general conceptualizations of happiness, as adolescents mentioned more 'being praised' and 'learning', whereas children mentioned more 'enjoyment' (Giacomoni et al., 2014; López-Pérez et al., 2015). The obtained differences may be explained by different domains triggering the activation of different conceptualizations. Thus, making the definitions of happiness domain-specific. This potential explanation finds support in quantitative studies that have found that self-reported happiness may vary across contexts (van de Wetering et al., 2010).



Finally, happiness as ‘helping’ was significantly more mentioned by adolescents than children. This conceptualization may be considered as eudaimonic, as according to the Self-Determination Theory (SDT; Deci & Ryan, 1980), helping fulfils the needs for autonomy (i.e., sense of choice in one’s own behaviour), relatedness (i.e., connecting with others), and competence (i.e., sense of efficacy) (Ryan, Huta, & Deci, 2008). The fact that this eudaimonic conceptualization was mentioned more by adolescents supports previous research on general conceptualizations on happiness, which found that eudaimonic conceptualizations related to personal growth and self-actualization were more mentioned in this age group (Freire et al., 2013; López-Pérez et al., 2015). Defining happiness in eudaimonic terms may require reasoning in abstract terms, which children may find difficult (e.g., Sternberg & Nigro, 1980) and a sense of self, which clearly develops over adolescence (Kroger, 2005). Thus, these possible factors may explain age differences in regards to conceptualizing happiness as ‘helping’.

### **Self-reported Happiness, Academic Achievement, and their relation with Happiness Conceptualizations**

We also analysed children’s and adolescents’ self-reported level of happiness in that context and their academic performance. As previously found in the literature, adolescents reported to be significantly less happy at school than children (Natvig, Albrektsen, & Qvarnstrom, 2003). This result may be due to significant differences between the primary and the secondary school environments. Namely, in secondary schools there is more competition within the classroom context (Demetriou, Goalen, & Rudduck, 2000), more importance is placed on the evaluation of students (Benner & Graham, 2009), and this evaluation is more focused on the final result than on the student’s effort (Jackson & Warin, 2000). Thus, although children’s and adolescents’ samples in our study were attending the same schools, it is possible

that differences in the classroom environment may explain the significant differences between both age groups in academic achievement.

In regard to the different conceptualizations, the results showed that for adolescents four ('being with friends', 'being praised', 'helping', and 'having leisure time') out of the seven conceptualizations were significant predictors of (model 1) or were significantly predicted by (model 2) self-reports of happiness, which at the same time was related to academic achievement. From the four categories, 'being with friends' and 'helping' would be considered eudaimonic conceptualizations according to the SDT, as the former is linked to fulfilling the need for relatedness and the latter to fulfilling the need for autonomy, relatedness, and competence (Ryan et al., 2008). In fact, previous research has linked eudaimonic or intrinsic goals to higher well-being or happiness (Niemi, Ryan, & Deci, 2006). However, 'being praised' is considered a hedonic conceptualization as it does not fulfil any of the aforementioned basic needs (Ryan et al., 2008). Therefore, although it positively predicted happiness at school one may expect that its effects may not be as persistent as in the case of the eudaimonic conceptualizations, as suggested in the previous literature on intrinsic goals (Brown & Ryan, 2004). Unlike previous studies on general happiness (Holder, Coleman, & Shen, 2009), 'having leisure time' was a negative predictor of self-reported happiness. According to the SDT, leisure can contribute to happiness as it involves self-regulated and autonomous behaviour; therefore, it fulfils the need for autonomy (Ryan & Deci, 2000). However, if leisure is not chosen by children/adolescents, then it may not contribute to their own happiness (Holder et al., 2009). Given that typically secondary schools do not provide freedom of choice (Eccles, Lord, & Midgely, 1991), this may explain why leisure did not contribute to adolescents' happiness at school in the present study. However, this should be explored further in future research.

For children, it is noteworthy that none of the conceptualizations actually predicted self-reported happiness. Given that previous research on children's (Giacomoni et al., 2014; López-Pérez et al., 2015) and adolescents' (Freire et al., 2013; López-Pérez et al., 2015) conceptualizations was conducted at a qualitative level, it is not possible to compare the present findings with previous evidence. Although one may argue that the obtained results may suggest that children's conceptualizations may not be valid as they do not account for self-reported happiness, we believe this explanation is untenable because (a) the same categories emerged in children's and adolescents' conceptualizations, which suggests that children's accounts are not arbitrary; and (b) six out of the seven conceptualizations or categories obtained are in fact identical to previous categorisations about general happiness in different samples (Giacomoni et al., 2013; López-Pérez et al., 2015). We believe that the main reason for the lack of relation is that children's self-reported happiness scores were highly skewed (skewness = -1.16, S.E. = 0.23), compared to adolescents (skewness = -0.66, S.E. = 0.24), which did not allow to discriminate whether higher scores of self-reported happiness were actually related to different conceptualizations. Therefore, future research should control for that, in order to elucidate whether children's self-reported happiness actually relates to happiness conceptualizations.

For adolescents, given that the two possible path models were not directly comparable, the obtained results only suggested a better fit of model 2 in which academic achievement was a positive predictor of self-reported happiness, which at the same time was a positive predictor of four conceptualizations of happiness. However, this does not mean that model 1 is not theoretically relevant. The fact that both models showed a good fit supports previous evidence of lagged effects between happiness and academic achievement (e.g., Quinn & Duckworth, 2007). Thus, happiness brings children and adolescents to perform better and better performance makes them happier. These results may have implications from a practical perspective. In the first instance, schools may need to ensure students' happiness so they can

perform better, as previous literature has found that children's mental health problems may have a negative impact in their academic achievement (e.g., DeSocio & Hootman, 2004). At the same time, grades may have a repercussion in children's well-being. Thus, schools need to ensure that when providing grades they do provide positive information-based feedback (i.e., highlighting what the student did well and afterwards potential areas for improvement), as previous research has linked this type of feedback with higher perception of competence and intrinsic motivation (Ryan, Connell, & Deci, 1985), which are clearly related to higher well-being (Ryan & Deci, 2000). However, it is important to acknowledge that these results come from a single culture and middle-class background. Therefore, future research may not find the same results and therefore should be interpreted cautiously.

Concerning children, only happiness as 'learning' was positively related to academic achievement. According to the SDT, learning constitutes an intrinsic goal and therefore could be regarded as a eudaimonic conceptualization as it is likely to encompass a high experience of competence and to be involved in volitional activities (Ryan et al., 2008). In fact, previous literature on motivation has extensively shown how students who were more process-oriented (i.e., focused on learning) rather than outcome-oriented (i.e., focused on the grade) had a better academic performance (e.g., Zimmerman & Schunk, 1989). Thus, it is not surprising the relation between both variables for the child sample. However, this pattern was not true for adolescents. As previously outlined, primary and secondary school contexts differ in the emphasis that secondary schools place on the outcome rather than the process (Eccles et al., 1991; Rathunde, 2014), which may explain why happiness as 'learning' predicted academic achievement for children, whereas happiness as 'being praised' predicted happiness at school for adolescents, which at the same time predicted academic achievement.

### **Limitations and Future Research**

Although the present research constitutes a first step in the study of the relationship between happiness conceptualizations and their self-reported happiness and academic achievement, it presents some limitations. First, the data was collected in a single culture and in middle-class schools. Therefore, the obtained results may be different in distinct cultures or different socio-economic backgrounds, as found in previous research with adults (e.g., Joshanloo et al., 2016). Second, we did not assess the different variables at different points, which prevented us from testing for cross-lagged relations. Hence, future research should consider a longitudinal approach to clarify the relation between the different variables. Third, we relied exclusively on a single measure to assess self-reported happiness at school, as there was only one measure available. However, previous research on general happiness has shown that there are some discrepancies in self-reported happiness depending on the measures used (López-Pérez & Wilson, 2015). Therefore, future research focused on general happiness where more measures are available may use different questionnaires in order to further assess the relations between happiness conceptualizations and self-reported levels of happiness. Finally, we did not assess other potential variables which may influence children's and adolescents' conceptualizations of happiness. For example, the way schools promote autonomy, competence, and relatedness may be linked with whether children are happy at school and how they conceptualize what being happy at that setting means. For instance, previous research has shown the importance of autonomy, competence, and relatedness as moderators between social support and subjective well-being in adolescents (Tian, Tian, & Huebner, 2015). In a similar fashion, previous research has shown how children in Montessori schools (which emphasize more children's autonomy in the learning process) compared to traditional middle schools reported higher happiness at school (Rathunde, 2014). Thus, future research should assess schools' approach to the three needs outlined in the SDT to better understand its link with children's conceptualizations of happiness at school.

**Implications**

Overall, results from the present study indicate how children and adolescents place a great emphasis on grades and being praised (external rewards) in their definitions of being happy at school, which should make parents, teachers, and education communities reflect on current education practices and whether they help students achieve autonomy, competence, and relatedness in the school environment. Thus, besides academic achievement, teachers and practitioners should also evaluate children's happiness in regards to key domains proposed in theoretical models such as Seligman's (2011) PERMA model (i.e., positive emotions, engagement, relationships, meaning, and accomplishment). This would provide teachers and practitioners with valuable information about each child as well as the overall class. Finally, since positive relationships was the most mentioned conceptualization by children and the second one by adolescents, schools should promote warm and positive relationships between peers and with teachers, as this does not only target relatedness but also feeling emotional support (i.e., 'helping' in the present research), which is something also highlighted as important by adolescents in our study.

Despite its limitations, the current research fills critical gaps in the literature by connecting qualitative research on happiness conceptualizations with other quantitative variables in regard to well-being at school. This will not only expand our knowledge on how children and adolescents strive for happiness in the school environment, but it will also open a new exciting research program to study how conceptualizations of happiness develop and relate to different school contextual factors in order to improve children's and adolescents' well-being.

## References

- Benner, A. D., & Graham, S. (2009). The transition to high school as a developmental process among multi-ethnic urban youth. *Child Development, 80*, 356–376.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*, 588–606.
- Bronfenbrenner, U. & Morris, P.A. (1998). The ecology of developmental processes. In R. Lerner (Vol. Ed.) *Handbook of child psychology: Theoretical models of human development*. (5th Ed., Vol. 1, pp 993–1028). New York, N.Y.: John Wiley.
- Brown, K. W., & Ryan, R. M. (2004). Perils and promise in defining and measuring mindfulness: observations from experience. *Clinical Psychology: Science and Practice, 11*, 242-248.
- Buhrmester, D. (1998). *Need fulfillment, interpersonal competence, and the developmental contexts of early adolescent friendship*. In W. Bukowski, A.F. Newcomb, & W.W. Hartup (Eds.), *The company they keep: friendship in childhood and adolescence* (pp. 158-185). New York: Cambridge University Press.
- Carlquist, E., Ulleberg, P., Delle Fave, A., Nafstad, H.E., & Blakar, R.M. (2016). Everyday understandings of happiness, good life, and satisfaction: Three different facets of well-being. *Applied Research in Quality of Life*. doi:10.1007/s11482-016-9472-9
- Cheng, H., & Furnham, A. (2002). Personality, peer relations, self-confidence as predictors of happiness and loneliness. *Journal of Adolescence, 25*, 327–339.
- Danielsen, A. G., Samdal, O., Hetland, J., & Wold, B. (2009). School-related social support and students' perceived life satisfaction. *The Journal of Educational Research, 102*, 303–318.

- Deci, E. L., & Ryan, R. M. (1980). The empirical exploration of intrinsic motivational processes. In L. Berkowitz, (Ed.), *Advances in experimental social psychology* (Vol. 13, pp. 39-80). New York: Academic Press
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9, 1–11.
- Deci, E. L., & Ryan, R. M. (2016). Optimizing students' motivation in the era of testing and pressure: a self-determination theory perspective. In L.W. Chia, J.W.C. Keng, & R.M. Ryan (2016) (Eds.). *Building autonomous learners: Perspectives from Research and Practice using Self-Determination Theory*. Springer Singapore.
- Delle Fave, A., Brdar, I., Freire, T., Vella-Brodrick, D., & Wissing, M. P. (2011). The eudaimonic and hedonic components of happiness: Qualitative and quantitative findings. *Social Indicators Research*, 100, 158–207.
- Demetriou, H., Goalen, P. & Rudduck, J. (2000). Academic performance, transfer, transition and friendship: listening to the student's voice. *International Journal of Educational Research*, 33, 425–441.
- Díaz, D., Rodríguez-Carvajal, R., Blanco, A., Moreno-Jiménez, B., Gallardo, I., Valle, C., y Dierendonck, D. (2006). Adaptación española de las escalas de bienestar psicológico de Ryff. *Psicothema*, 18, 572–577.
- Diener, E. (2000). Subjective well-being: The science of well-being and a proposal for a national index. *American Psychologist*, 55, 34–43.
- Diener, E. (Ed.). (2009). *The science of well-being: The collected works of Ed Diener* (Vol. 1). New York: Springer Science & Business Media.
- DeSocio J. & Hootman J. (2004). Children's mental health and school success. *Journal of Psychological Nursing*, 20(4), 189–196.



- Dumontheil, I. (2014). Development of abstract thinking during childhood and adolescence: The role of rostral lateral prefrontal cortex. *Developmental Cognitive Neuroscience, 10*, 57–76.
- Eccles, J., Lord, S., Midgley, C. (1991). What Are We Doing to Early Adolescents? The Impacts of Educational Contexts on Early Adolescents. *American Educational Journal, August*, 521–542.
- Freire, T., Zenhas, F., Tavares, D., & Iglésias, C. (2013). Felicidade hedónica e eudaimónica: um estudo com adolescentes portugueses. *Análise Psicológica, 4*, 329-342.
- Furnham, A. & Cheng, H. (2000). Lay theories of happiness. *Journal of Happiness Studies, 1*, 227–246.
- Galindo, C., & Sheldon, S. B. (2012). School and home connections and children's kindergarten achievement gains: The mediating role of family involvement. *Early Childhood Research Quarterly, 27*, 90–103.
- Galindez, E., & Ferran, C. (2011). Adaptation and validation of the MSLSS of multidimensional life satisfaction with a sample of adolescents. *Revista de Psicología Social, 26*, 309–323.
- Giacomoni, C. H., Souza, L. K., & Hutz, C. S. (2014). O conceito de felicidade em crianças (The concept of happiness in children). *Psico-USF, Bragança Paulista, 19*, 143-153.
- Gillet, N., Vallerand, R. J., & Lafrenière, M.-A. K. (2012). Intrinsic and extrinsic school motivation as a function of age: The mediating role of autonomy support. *Social Psychology of Education, 15*, 77–95.
- Gutman, L.M., & Feinstein, L. (2008). *Children's well-being in primary school: pupil and school effects*. London: Department for children, schools, and families.
- Holder, M.D., Coleman, B., & Shen, Z.L. (2009). The contribution of active and passive leisure to children's well-being. *Journal of Health Psychology, 14*, 378–386.

- Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *Electronic Journal of Business Research Methods*, 6, 53–60.
- Hoyle, R.H. (ed.) 1995. *Structural Equation Modeling*. SAGE Publications, Inc. Thousand Oaks, CA.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- Huebner, E.S. (1991b). Initial development of the Student's Life Satisfaction Scale. *School Psychology International*, 12, 231-240.
- Huebner, E.S. & Alderman, G.L. (1993). Convergent and discriminant validation of a children's life satisfaction scale: Its relationship to self- and teacher-reported psychological problems and school functioning. *Social Indicators Research*, 30, 71–82.
- Jackson, C. & Warin, J. (2000). The Importance of gender as aspect of identity formation at key transition points in compulsory education. *British Educational Research Journal*, 26, 375–390.
- Joshanloo, M., Rizwan, M., Khilji, I. A., Ferreira, M. C., Poon, W. -C., Sundaram, S., ... Tsukamoto, S. (2016). Conceptions of happiness and life satisfaction: An exploratory study in 14 national groups. *Personality and Individual Differences*, 102, 145–148.
- Kirkcaldy, B., Furnham, A. & Siefen, G. (2004). The Relationship between health efficacy, educational attainment, and well-being among 30 nations. *European Psychologist*, 9, 107–119.
- Kline, R. B. (2015). *Principles and practice of structural equation modelling*. Guilford publications.

- Kroger, J. (2005). Identity development during adolescence. In G. Adams & M. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 227-246). Malden, MA: Blackwell.
- Lepper, M. R., Corpus, J. H., & Iyengar, S. S. (2005). Intrinsic and extrinsic motivation orientations in the classroom: Age differences and academic correlates. *Journal of Educational Psychology, 97*, 184 – 196.
- Lerner, R. M., & Steinberg, L. (2009). *Handbook of adolescent psychology*. New York: Wiley
- López-Pérez, B., Sanchez, J., & Gummerum, M. (2015). Children's and adolescents' conceptualizations of happiness. *Journal of Happiness Studies*. Advanced online publication. doi: 10.1007/s10902-015-9701-1
- López-Pérez B., & Wilson, E.L. (2015). Parent-child discrepancies in the assessment of children's and adolescents' happiness. *Journal of Experimental Child Psychology, 139*, 249–255.
- Marini, Z. & Case, R. (1994). The development of abstract reasoning about the physical and social world. *Child Development, 65*, 147–159.
- McCullough, G., Huebner, E. S., & Laughlin, J. E. (2000). Life events, self-concept, and adolescents' positive subjective well-being. *Psychology in the Schools, 37*, 281–290.
- McLaughlin, C., & Clarke, B. (2010). Relational matters: A review of the impact of school experience on mental health in early adolescence. *Educational & Child Psychology, 27*, 91–103.
- Mogilner, C., Kamvar, S. D., & Aaker, J. (2011). The shifting meaning of happiness. *Social Psychological and Personality Science, 2*, 395-402.
- Natvig, G.K., Albrektsen, G., & Qvarnstrøm, U. (2003). Associations between psychosocial factors and happiness among school adolescents. *International Journal of Nursing Practice, 9*, 166–175.

- Ng, Z.J., Huebner, S.E., & Hills, K.J. (2015). Life satisfaction and academic performance in early adolescents: evidence for reciprocal association. *Journal of School Psychology, 53*, 479–491.
- Niemiec, C.P., R.M. Ryan & E.L. Deci (2006). *The path taken: consequences of attaining intrinsic and extrinsic aspirations in post-college life*. Unpublished manuscript.
- Quinn, P. D., & Duckworth, A. L. (2007). *Happiness and academic achievement: Evidence for reciprocal causality*. Poster presented at the annual meeting of the American Psychological Society, Washington, D.C. Retrieved October 10, 2015, from: [http://www. http://c.ymcdn.com/sites/www.co- case.org/resource/resmgr/imported/WP\\_Happiness%20and%20Academic%20Achievement.pdf](http://www.case.org/resource/resmgr/imported/WP_Happiness%20and%20Academic%20Achievement.pdf)
- Rathunde, K. (2014). Understanding optimal school experience: Contributions from Montessori education. In D. Shernoff & J. Bempechat (Eds.), *Engaging Youth in Schools: Empirically-Based Models to Guide Future Innovations* (255-274). New York: NSSE/Teachers College Press.
- Ryan, R.M., Connell, J.P., & Deci, E.L. (1985). A motivational analysis of self-determination and self-regulation in education. In C. Ames & R.E. Ames (Eds.), *Research on motivation in education: the classroom in milieu* (pp. 13-51). New York: Academic.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68–78.
- Ryan, R. M., Huta, V., & Deci, E. L. (2008). Living well: A self-determination theory perspective on eudaimonia. *Journal of Happiness Studies, 9*, 139–170.
- Seligman, M. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York: Free Press.

- Socha, A., Swain, M. S., & Sundre, D. L. (2013, October). *Do examinees want their test scores? Investigating the relationship between feedback, motivation, and performance in low-stakes testing contexts*. Paper presented at the annual conference of the Northeastern Educational Research Association (NERA), Rocky Hill, CT.
- Sternberg, R. J., & Nigro, G. (1980). Developmental patterns in the solution of verbal analogies. *Child Development, 51*, 27–38.
- Stiglbauer, B., Gnams, T., Gamsjäger, M., & Batinic, B. (2013). The upward spiral of adolescents' positive school experiences and happiness: Investigating reciprocal effects over time. *Journal of School Psychology, 51*, 231–242.
- Suldo, S. M., & Huebner, E. S. (2006). Is extremely high life satisfaction during adolescence advantageous? *Social Indicators Research, 78*, 179–203.
- Suldo, S. M., Riley, K., & Shaffer, E. J. (2006). Academic correlates of children and adolescents' life satisfaction. *School Psychology International, 27*, 567–582.
- Sylva, K. (1994). School influences on children's development. *Journal of Child Psychology and Psychiatry, 35*, 135–170.
- The Children's Society (2015). *The Good Childhood Report 2015*. London: The Children's Society.
- Tian, L., Tian, Q., & Huebner, E.S. (2015). School-Related Social Support and Adolescents' School-Related Subjective Well-Being: The Mediating Role of Basic Psychological Needs Satisfaction at School. *Social Indicators Research*. doi: 10.1007/s11205-015-1021-7.
- Tsai, K. M., Telzer, E. H., & Fuligni, A. J. (2013). Continuity and Discontinuity in Perceptions of Family Relationships from Adolescence to Young Adulthood. *Child Development, 84*, 471-484.

van de Wetering, E. J., van Exel, N. J. A., & Brouwer, W. B. (2010). Piecing the jigsaw puzzle of adolescents' happiness. *Journal of Economic Psychology*, *31*, 923-935.

Wickens, T. D. (1989). *Multiway contingency tables analysis for the social sciences*. Hillsdale, NJ: Erlbaum.

Zimmerman, B.J., & Schunk, D.H. (Eds.). (1989). *Self-regulated learning and academic achievement: theory, research, and practice*. New York: Springer Verlag.

Table 1

*Sample Composition*

	School 1			School 2		
	Boys	Girls	Total	Boys	Girls	Total
Children	22	18	40	31	33	64
Adolescents	26	25	51	36	26	62

Table 2

*Frequency of Conceptualizations of Happiness at School by Age and Gender*

	Children			Adolescents		
	Male	Female	Total	Male	Female	Total
Friends	21 (40%)	23 (45%)	44 (42%)	9 (15%)	14 (28%)	23 (20%)
Leisure	6 (11%)	6 (12%)	12 (12%)	11 (18%)	10 (20%)	21 (18%)
Learning	5 (9%)	1 (2%)	6 (6%)	7 (11%)	3 (6%)	10 (9%)
Enjoyment	3 (6%)	7 (14%)	10 (10%)	9 (15%)	5 (10%)	14 (12%)
Good grades	17 (32%)	15 (30%)	32 (31%)	22 (36%)	17 (33%)	39 (35%)
Being praised	8 (15%)	10 (20%)	18 (17%)	11 (18%)	9 (18%)	20 (17%)
Helping	2 (4%)	7 (14%)	9 (9%)	12 (20%)	9 (18%)	21 (19%)



Table 3

*Results of Hi-log-linear and Log-Linear Analyses for each Happiness Content Category*

Effects and interactions	<i>Df</i>	Partial $\chi^2$	<i>p</i>	<i>z</i> value (children (r) adolescents)
<b>Hi-log-linear Friends</b>				
Friends $\times$ Age	4	4.59	.33	-
Friends $\times$ Gender	1	2.34	.13	-
Gender $\times$ Age	1	.37	.54	-
Friends $\times$ Gender $\times$ Age	1	.87	.35	-
<b>Log-linear Friends</b>				
Friends $\times$ Age	1	12.07	.001	-3.43
<b>Hi-log-linear Leisure</b>				
Leisure	6	3.67	.72	-
Leisure $\times$ Gender	1	.06	.81	-
Leisure $\times$ Age	1	2.13	.14	-
Leisure $\times$ Age $\times$ Gender	1	.01	.92	-
<b>Log-linear Leisure</b>				
Leisure $\times$ Age	1	2.14	.14	1.45
<b>Hi-log-linear Learning</b>				
Learning	6	5.65	.46	-

Effects and interactions	<i>Df</i>	Partial $\chi^2$	<i>p</i>	<i>z</i> value (children (r) adolescents)
Learning × Gender	1	3.42	.07	-
Learning × Age	1	.37	.54	-
Learning × Age × Gender	1	.54	.46	-
Log-linear Learning				
Learning × Age	1	.65	.42	.95
Hi-Log linear Enjoyment				
Enjoyment	6	4.34	.63	-
Enjoyment × Gender	1	.11	.74	-
Enjoyment × Age	1	.44	.51	-
Enjoyment × Age × Gender	1	2.46	.12	-
Log-linear Enjoyment				
Enjoyment × Age	1	.44	.51	.64
Hi-Log linear Grades				
Grades	6	2.02	.92	-
Grades × Gender	1	.14	.71	-
Grades × Age	1	.33	.57	-
Grades × Age × Gender	1	.01	.95	-

Effects and interactions	<i>Df</i>	Partial $\chi^2$	<i>p</i>	<i>z</i> value (children ( <i>r</i> ) adolescents)
<hr/>				
Log-linear Grades				
Good grades x Age	1	.33	.57	.60
<hr/>				
High-log linear Being Praised				
Praised	6	1.88	.93	-
Praised × Gender	1	.17	.68	-
Praised × Age	1	.01	.93	-
Praised × Age × Gender	1	.20	.65	
<hr/>				
Log-linear Being Praised				
Praised x Age	1	.10	.93	.08
<hr/>				
High-log linear Helping				
Helping × Age	4	4.31	.37	-
Helping × Gender	1	.71	.40	-
Gender × Age	1	.78	.38	-
<hr/>				
Log-linear Helping				
Helping x Age	1	4.76	.03	2.07

*Note.* The number of *z* values corresponds to the degrees of freedom of the tested effects; *z* values with absolute values greater than 1.96 are significant ( $p < .05$ ); (*r*) indicates the reference category of each factor for the *z* value.

Table 4

*Correlation Coefficients between all Variables in Adolescents (lower triangle) and Children (upper triangle)*

	1	2	3	4	5	6	7	8	9
1. Friends	-	-.25*	-.05	.117	.36**	-.34**	-.13	.02	-.02
2. Leisure	-.07	-	.04	-.12	-.24*	-.17	-.11	-.10	-.16
3. Learning	-.08	-.15	-	-.08	-.17	-.11	-.08	.13	.21*
4. Having fun	.01	-.18	.26**	-	-.15	-.15	-.10	.11	.18
5. Good grades	-.18	-.35**	.23*	-.22*	-	-.03	.02	-.07	-.11
6. Being praised	-.23*	-.22*	-.14	-.17	.05	-	-.14	-.15	-.05
7. Helping	.04	-.23*	-.15	-.18	-.30**	.08	-	.10	.00
8. Happiness at School	.21*	-.38**	.10	.02	-.00	.32**	.25**	-	.51**
9. School Performance	.25**	-.10	-.06	-.01	.01	.20*	.01	.56**	-

*Note.* \*  $p < .05$ ; \*\* $p < .01$ .

Table 5

*Scores of Happiness at School within each Conceptualization and Age Group*

		Children		Adolescents	
		M (SD) n	Z (p) Cohen's d	M (SD) n	Z (p) Cohen's d
Being with friends	Yes	8 (2.25) 44	-.74 (.46) .04	Yes	7.04 (1.46) 23
	No	7.92 (1.84) 60		No	5.98 (2.10) 90
Having leisure time	Yes	7.42 (2.06) 12	-1.05 (.29) -.30	Yes	4.57 (2.25) 21
	No	8.02 (2.01) 92		No	6.57 (1.79) 92
Learning	Yes	9 (2) 6	-1.84 (.06) .55	Yes	6.8 (1.39) 10
	No	7.89 (2.01) 98		No	6.14 (2.08) 103
Enjoyment	Yes	8.6 (1.64) 10	-1.09 (.27) .39	Yes	6.29 (1.54) 14
	No	7.88 (2.05) 94		No	6.18 (2.1) 99
Getting good grades	Yes	7.75 (2.09) 32	-.708 (.47) -.14	Yes	6.18 (1.85) 39
	No	8.04 (1.98) 72		No	6.20 (1.95) 74
Being praised	Yes	7.28 (1.90) 18	-1.93 (.053) -.41	Yes	7.6 (1.31) 20
	No	8.09 (2.02) 86		No	5.89 (2.04) 93
Helping	Yes	8.56 (1.13) 9	-.632 (.53) .42	Yes	7.24 (1.09) 21
	No	7.89 (2.07) 95		No	5.96 (2.12) 93

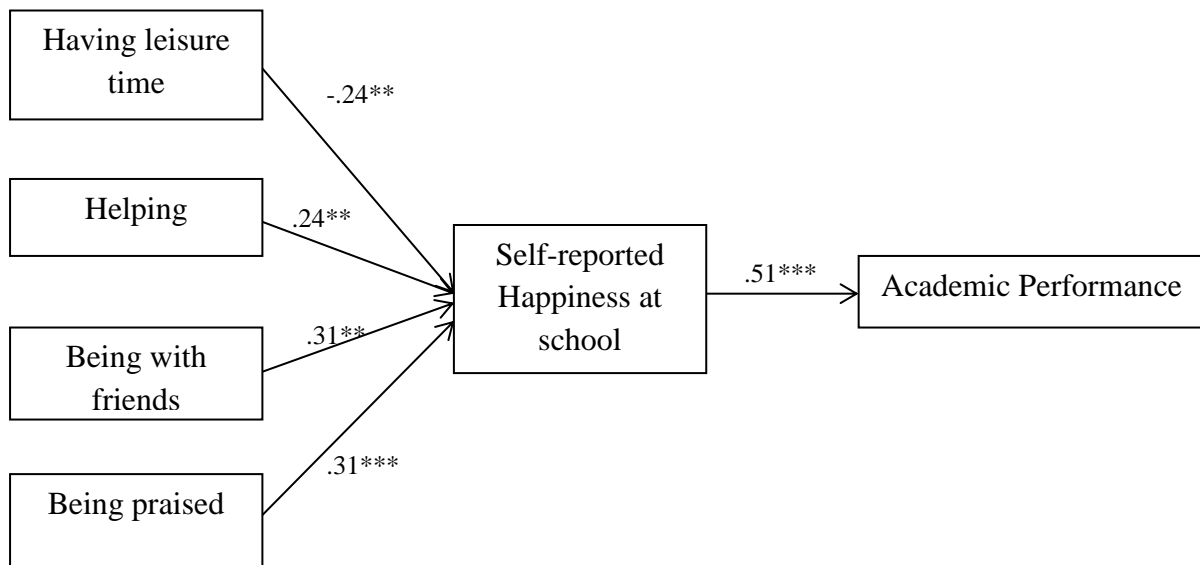
*Note.* M = Mean; SD = Standard Deviation; n = sample size.

Table 6

*Scores of Performance at School within each Conceptualization and Age Group*

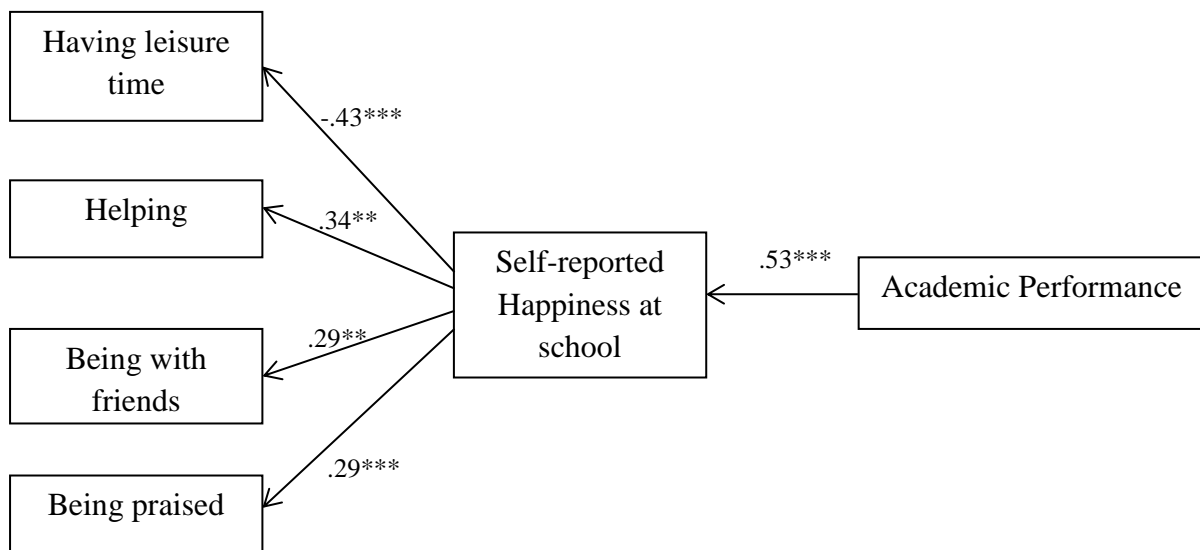
		Children		Adolescents	
		M (SD) n	Z (p) Cohen's d	M (SD) n	Z (p) Cohen's d
Being with friends	Yes	7.02 (1.56) 44	-.057 (.955) -.04	6.86 (1.01) 23	-2.79 (.005) .68
	No	7.1 (1.80) 60		6.01 (1.45) 90	
Having leisure time	Yes	6.33 (1.15) 12	-1.71 (.09) -.56	5.90 (1.18) 21	-.95 (.34) -.26
	No	7.16 (1.73) 92		6.25 (1.45) 92	
Learning	Yes	8.5 (1.64) 6	-2.04 (.041) .92	5.9 (.73) 10	-.651 (.51) -.27
	No	6.97 (1.66) 98		6.21 (1.46) 103	
Enjoyment	Yes	8 (1.94) 10	-1.72 (.09) .58	6.14 (1.03) 11	-.036 (.97) -.04
	No	6.96 (1.65) 94		6.19 (1.46) 99	
Getting good grades	Yes	6.78 (1.79) 32	-1.028 (.30) .24	6.20 (1.85) 39	-.19 (.84) .02
	No	7.19 (1.65) 72		6.17 (1.3) 74	
Being praised	Yes	6.88 (1.77) 18	-.53 (.59) -.13	6.80 (1.64) 20	-1.87 (.06) .50
	No	7.10 (1.68) 86		6.05 (1.33) 93	
Helping	Yes	7.11 (1.62) 9	-.129 (.90) .03	6.33 (.91) 21	-.811 (.417) .15
	No	7.06 (1.71) 95		6.15 (1.50) 92	

(a)



Conceptualizations

(b)



Conceptualizations

Note:  $***p < .001$ ;  $**p < .01$ ;  $*p < .05$

Figure 1. Path Analyses Model 1(a) and 2 (b) for Adolescents

## Appendix A

*Coding System*

Content Categories identified in the Qualitative Analyses	Examples
<i>Being with Friends:</i> being with friends or best friends	“Being happy at school means being with friends”
<i>Having Leisure time:</i> break time, going to trips, or participating in non-academic activities such as art performances	“Being happy at school means going to trips or participating in the Christmas play”
<i>Learning:</i> enjoying studying or participating in the learning process	“Being happy at school means learning new things, such as new languages you may use when traveling abroad”
<i>Enjoyment:</i> laughing and experiencing entertainment while in the classes or with friends	“Being happy at school means having fun...for instance, when someone in the class makes a joke and everybody laughs”
<i>Getting good grades:</i> achieving good grades	“Being happy at school means getting very good grades such as when I got a 10/10 in a Maths test”
<i>Being praised:</i> getting recognition from teacher/s and/or classmates	“Being happy at school is when my teacher praised me for doing a good job”
<i>Helping:</i> receiving advice, cooperating between classmates or friends and receiving emotional support.	“Being happy at school is when you don’t know how to solve a problem and your friends or teacher help you”