LONGITUDINAL STUDY OF SCHOOL AND SUBJECTIVE WELL-BEING BETWEEN THE AGES OF 10 AND 18: RESULTS AFTER 6 YEARS OF DATA COLLECTION

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WHAT DID THE STUDY INVOLVE?

Between the years 2012 and 2017, Research Team on Children, Adolescents, Children's Rights and their Quality of Life from the University of Girona (http://www.udg.edu/eridiqv) undertook a longitudinal study to understand the evolution of subjective well-being of children and teenagers born between 1998 and 2006.

Subjective well-being includes the perceptions, evaluations and aspirations of people in relation to the satisfaction with the main aspects of their life, such as student life, interpersonal relationships, the place they live, or the family, amongst others.

A total of 2,262 students from primary and secondary education answered the same questionnaire along the six years. Eliminating those who had only answered on one occasion, we have a sample of 1,801 students (table 1), with which the following analysis was carried out.

Table 1. Participants per number of data collections

Number of years answered	Frequency
2 years	829
3 years	470
4 years	309
5 years	170
6 years	23
Total	1,801

The study included students enrolled in the years from the fifth year of primary (approx. 10 years old) to the final year of high school (approx. 18 years old) with 827 boys and 974 girls (table 2). This follow-up includes the collaboration of 16 educational centres (7 from primary, 6 from secondary and 3 centres that offer both primary and secondary education) from the province of Girona. Of these centres, 10 are state schools and six are subsidized-private.

Table 2. Participants by year of birth and sex

	Number of years the questionnaire has been answered	Year of birth									Total
		1998	1999	2000	2001	2002	2003	2004	2005	2006	
Boys	2	59	39	45	49	37	51	17	52	45	394
	3	21	25	19	19	35	45	40	15	0	219
	4	17	10	35	14	8	24	16	2	0	126
	5	0	2	13	40	24	0	0	0	0	79
	6	0	0	0	0	9	0	0	0	0	9
	Total	97	76	112	122	113	120	73	69	45	827
Girls	2	75	43	41	39	38	58	25	60	56	435
	3	19	44	32	8	27	41	56	24	0	251
	4	22	12	51	17	23	29	25	4	0	183
	5	0	11	26	29	25	0	0	0	0	91
	6	0	0	0	0	14	0	0	0	0	14
	Total	116	110	150	93	127	128	106	88	56	974
Total	2	134	82	86	88	75	109	42	112	101	829
	3	40	69	51	27	62	86	96	39	0	470
	4	39	22	86	31	31	53	41	6	0	309
	5	0	13	39	69	49	0	0	0	0	170
	6	0	0	0	0	23	0	0	0	0	23
	Total	213	186	262	215	240	248	179	157	101	1,801

In the first two years of the study the same sample of students born between 1998 and 2002 were monitored (they were between 10 and 14 years old when the study began). In the following years, this sample was increased with boys and girls born between 2003 and 2006, in order to compensate the habitual loss of participants that is produced in longitudinal studies.

The following part shows the results obtained on three scales which evaluate subjective well-being in different ways (overall life satisfaction, happiness with overall life, and the brief multidimensional student's life satisfaction scale), in order to contrast if the information they give is the same or not. In addition, school well-being has been studied from the satisfaction with their learning, with the relationship with their classmates, with the relationship with their teachers and with their life as a student to see if changes occur during the six years of study.

Overall life satisfaction (OLS)

This variable was analysed using the question: "Up to now, how satisfied have you been with your life overall?" and a scale from 0 = totally dissatisfied to 10 = totally satisfied.

Considering the mean scores according to year of birth (table 3), a general decrease can be observed between the first year the questionnaire was given and the last. This is true in all cohorts except those born in 2005 (they were 12 years old at the last data collection), and in the fifth year of data collection for those born in 2000 (16-year-olds), which indicates that this decrease may have exceptions.

Table 3. OLS means in the 6 years of questionnaire administration according to year of birth (scale 0-100)

Cohorts	OLS 1st year	OLS 2nd year	OLS 3rd year	OLS 4th year	OLS 5th year	OLS 6th year
1998	80.9 (n^1 = 207)	79.0 (n = 205)	79.5 (n = 84)	76.1 (n = 46)	-	-
1999	84.4 (n = 171)	81.1 (n = 172)	78.7 (n = 113)	78.5 (n = 46)	78.1 (n = 16)	-
2000	89.1 (n = 235)	82.7 (n = 227)	78.4 (n = 186)	77.8 (n = 127)	79.7 (n = 78)	-
2001	91.6 (n = 153)	89.0 (n = 154)	83.6 (n = 162)	81.0 (n = 102)	79.9 (n = 149)	-
2002	93.6 (n = 180)	91.6 (n = 176)	82.7 (n = 163)	81.9 (n = 144)	79.9 (n = 145)	77.9 (n = 28)
2003	-	-	91.3 (n = 195)	86.7 (n = 213)	82.6 (n = 217)	80.9 (n = 56)
2004	-	-	90.8 (n = 178)	89.6 (n = 170)	87.3 (n = 136)	83.3 (n = 46)
2005	-	-	90.0 (n = 23)	92.0 (n = 153)	92.4 (n = 152)	88.4 (n = 31)
2006	-	-	-	-	94.8 (n = 101)	92.6 (n = 100)

[1] Number of boys and girls

In Graph 1 this decrease is clearly shown. It can also be seen that the older children tend to show lower mean scores than the younger children. This is more pronounced among girls than boys. The girls start with a higher mean and finish with a lower mean than the boys.

Graph 1. OLS evolution during the 6 years of study according to year of birth (scale 0-100)*

- 1st year
- 2nd year
- 3rd year
- 4th year
- 5th year
- 6th year
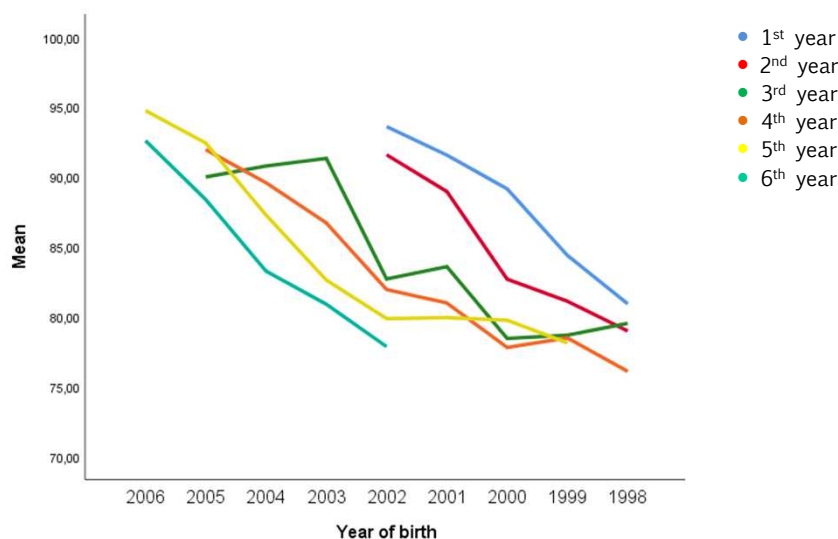
*The year of birth is in reverse chronological order

Happiness Taking into Account Overall Life (HOL)

This variable was explored by starting with the question: "Taking into account your overall life, would you say you are…?" and a scale from 0 = extremely unhappy to 10 = extremely happy.

If we analyse the mean scores according to year of birth (table 4), we can see there is a decrease from the first year the questionnaire was administered to the last year, in all the cohorts. This is not the case in the fifth collection of data from those born in 1999, where the sample is very small, and in the fourth collection of data from those born in 2000, suggesting, again there may be exceptions to this trend.

Table 4. HOL means in the 6 years of questionnaire administration according to year of birth (0-100)

Cohorts	HOL 1st year	HOL 2nd year	HOL 3rd year	HOL 4th year	HOL 5th year	HOL 6th year
1998	79.9 (n[1] = 197)	77.7 (n = 193)	77.5 (n = 80)	75.5 (n = 44)	–	–
1999	82.5 (n = 165)	80.9 (n = 164)	77.9 (n = 112)	75.6 (n = 41)	78.8 (n = 16)	–
2000	88.0 (n = 214)	83.3 (n = 209)	77.9 (n = 182)	78.9 (n = 126)	77.8 (n = 78)	–
2001	92.0 (n = 149)	88.0 (n = 139)	81.9 (n = 156)	80.1 (n = 93)	79.0 (n = 144)	–
2002	93.6 (n = 165)	91.8 (n = 170)	82.8 (n = 158)	79.6 (n = 142)	79.4 (n = 139)	76.2 (n = 26)
2003	–	–	89.8 (n = 192)	85.2 (n = 205)	82.6 (n = 211)	79.0 (n = 50)
2004	–	–	91.2 (n = 175)	89.0 (n = 162)	87.3 (n = 134)	81.4 (n = 42)
2005	–	–	95.8 (n = 24)	92.9 (n = 147)	92.2 (n = 149)	87.4 (n = 31)
2006	–	–	–	–	93.3 (n = 98)	90.5 (n = 95)

[1] Number of boys and girls

In Graph 2 the decrease is evident. It can also be seen that the older children tend to show lower means than the younger ones. Once more, this is more pronounced among girls than boys. The girls start with a higher mean and finish with a lower mean than the boys.

Graph 2. HOL evolution during the 6 years of study according to year of birth (scale 0-100)*
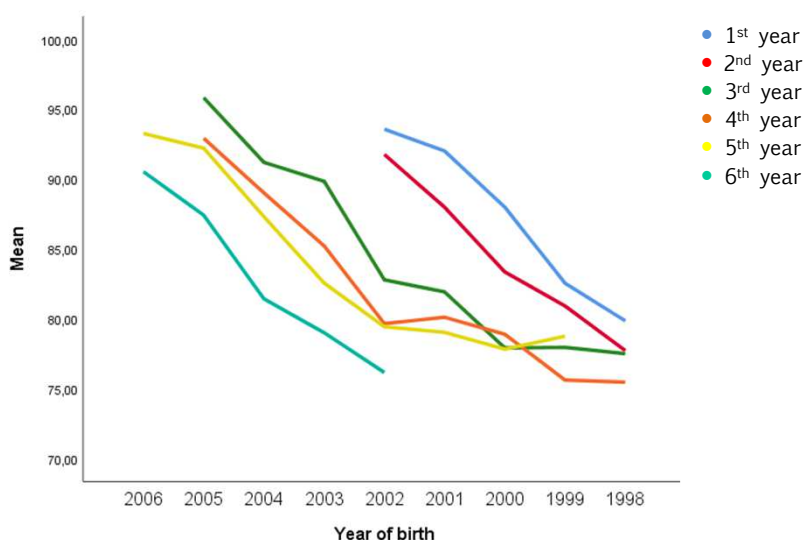
* The year of birth is in reverse chronological order

Brief multidimensional student's life satisfaction scale (BMSLSS)

In this variable, starting from the statement: "I would describe my satisfaction with..." students are asked how satisfied they are with..."my family", "my friends", "my experience as a student", "myself" and "the place I live". The scale is from 0 = terrible, to 10 = delighted.

If we analyse the mean scores according to year of birth (table 5), a general decrease can be observed between the first year the questionnaire was administered and the last in all cohorts. There are some exceptions (the 3rd year of data collection for those born in 1998, the 4th year for those born in 1999, the 5th year for those born in 2000 and 2005). For the third time we can see that the tendency to decrease may have exceptions.

Table 5. BMSLSS means in the 6 years of questionnaire administration according to year of birth (scale 0-100)

Cohorts	BMSLSS 1st year	BMSLSS 2nd year	BMSLSS 3rd year	BMSLSS 4th year	BMSLSS 5th year	BMSLSS 6th year
1998	79.9 (n[1] = 206)	76.1 (n = 206)	76.7 (n = 83)	74.3 (n = 46)	–	–
1999	83.2 (n = 172)	79.3 (n = 166)	77.9 (n = 114)	78.3 (n = 45)	77.5 (n = 16)	–
2000	87.8 (n = 235)	83.6 (n = 225)	77.5 (n = 183)	77.3 (n = 126)	77.9 (n = 79)	–
2001	90.6 (n = 151)	86.5 (n = 150)	81.7 (n = 159)	79.4 (n = 102)	78.2 (n = 150)	–
2002	91.2 (n = 174)	90.8 (n = 173)	83.1 (n = 161)	79.6 (n = 141)	77.8 (n = 143)	73.3 (n = 28)
2003	–	–	89.1 (n = 195)	84.5 (n = 208)	82.3 (n = 215)	78.1 (n = 54)
2004	–	–	91.0 (n = 174)	88.5 (n = 168)	86.2 (n = 137)	81.5 (n = 46)
2005	–	–	93.0 (n = 24)	90.6 (n = 149)	91.0 (n = 150)	85.3 (n = 30)
2006	–	–	–	–	91.6 (n = 97)	91.1 (n = 98)

[1] Number of boys and girls

In Graph 3 this trend is clearly visible once more, and again, the older children show general means that are lower than the younger children. Once more, this is more pronounced among girls than boys. The girls start with a higher mean and finish with a lower mean than the boys.

Graph 3. BMSLSS evolution during the 6 years of study according to year of birth (escala 0-100)*
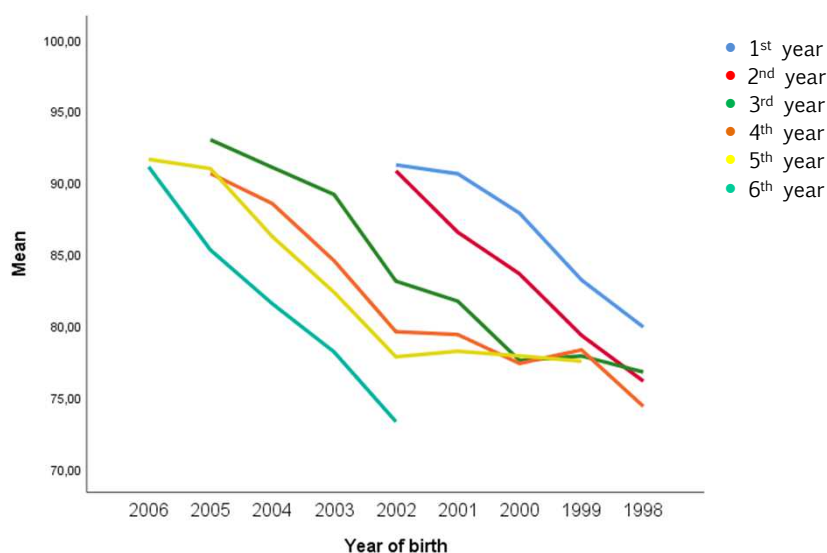
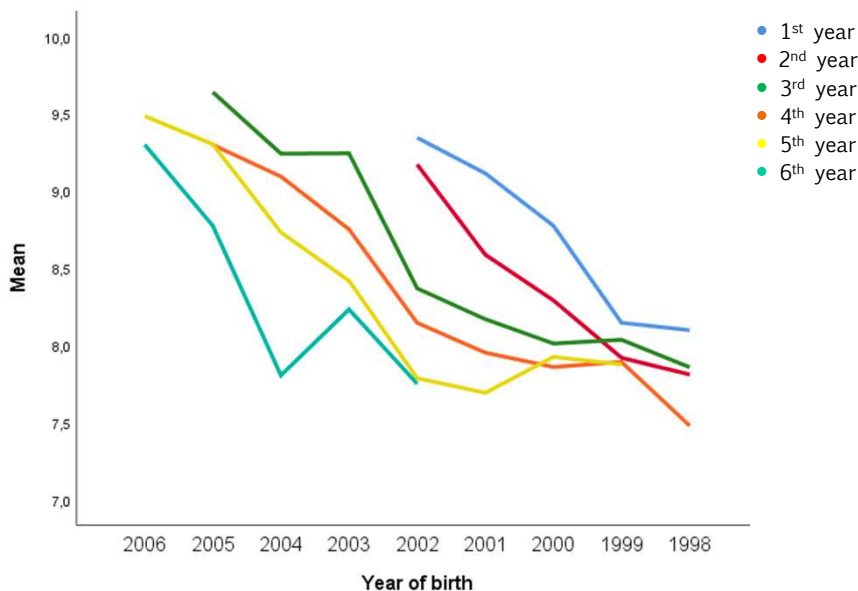*The year of birth is in reverse chronological order

School well-being

This study also explored the changes through time in different areas of satisfaction relating to school life. Specifically, the satisfaction with things they have learned, with the relationship with their classmates, with the relationship with teachers and with life as a student (graphs 4 to 7). The scale was from 0 = not at all satisfied to 10 = totally satisfied.

A decrease was observed in the four areas of satisfaction. Even though there are some oscillations according to year of birth, satisfaction with the relationship with teachers showed the most pronounced decrease and satisfaction with life as a student was especially low.

Graph 4. Evolution of the satisfaction with learning during the 6 years of study according to year of birth (scale 0-10)*
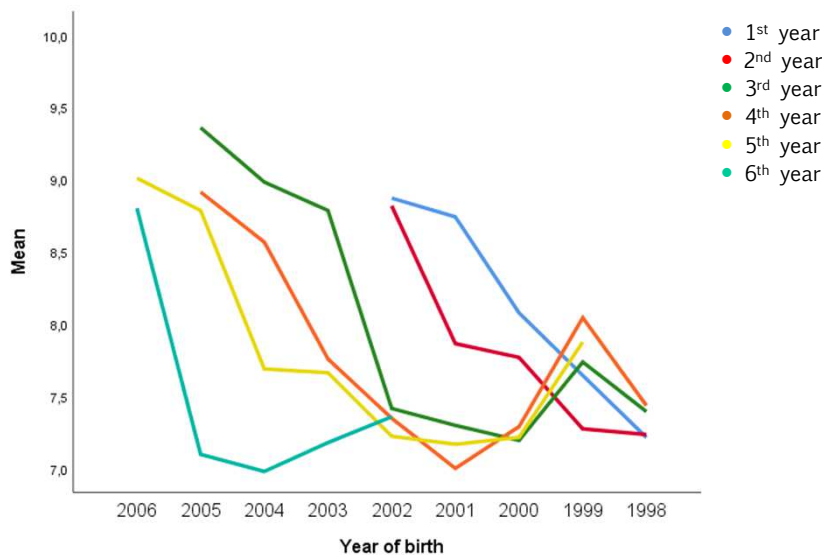

*The year of birth is in reverse chronological order

Graph 5. Evolution of the satisfaction with the relationship with classmates during the 6 years of study according to year of birth (scale 0-10)*

- 1st year
- 2nd year
- 3rd year
- 4th year
- 5th year
- 6th year
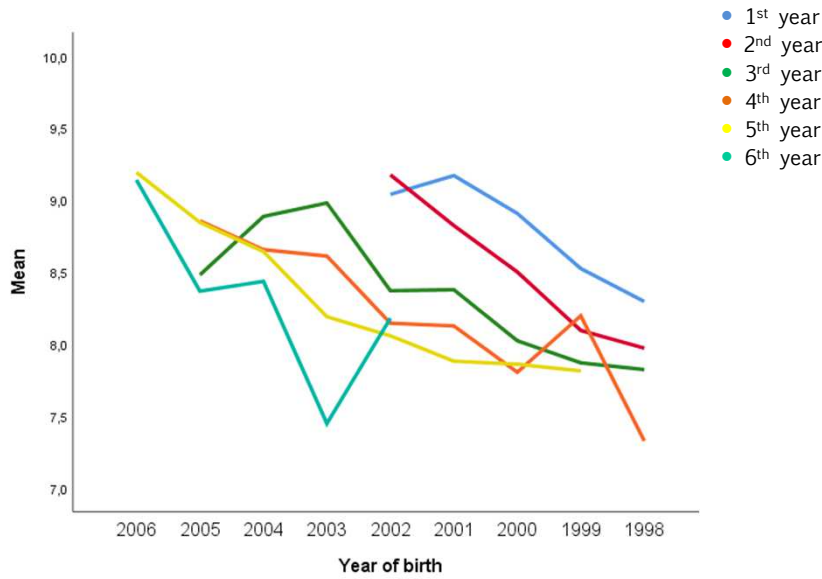
*The year of birth is in reverse chronological order

Graph 6. Evolution of the satisfaction with the relationship with teachers during the 6 years of study according to year of birth (scale 0-10)*

- 1st year
- 2nd year
- 3rd year
- 4th year
- 5th year
- 6th year

* The year of birth is in reverse chronological order

Graph 7. Evolution of the satisfaction with life as a student during the 6 years of study according to year of birth (scale 0-10)*

- 1st year
- 2nd year
- 3rd year
- 4th year
- 5th year
- 6th year
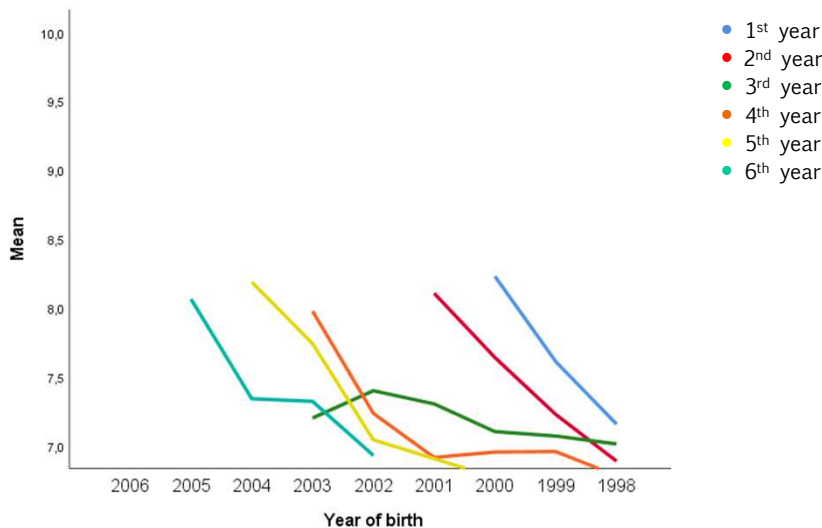
* The year of birth is in reverse chronological order

WHAT CONCLUSIONS WERE REACHED?

Analysing the results using three psychometric scales of different characteristics shows a general decreasing trend in the scores for subjective well-being during the six years of the study, both for boys and girls, during the ages from 10 to 18, with a few exceptions, which vary according to the scale used. This result highlights the need to use various psychometric instruments when studying child and youth well-being, and invites attempts to identify the factors that contribute to the decrease, so that they may be considered when designing, adopting and evaluating actions for promoting well-being at these ages.

These results also have important consequences regarding the debate on the stability of subjective well-being. For some time scientific literature has defended that this remains relatively constant throughout life. Data obtained in this study allow consideration of the hypothesis that a general decreasing trend in subjective well-being between the ages of 10 and 18 is part of a natural development from childhood to adulthood, although this can vary according to context and specific life circumstances faced during these years.

Following the subjective well-being of children and adolescents over the six years has allowed us to test whether age is a more determining factor than previously thought. Furthermore, the evolution of subjective well-being shows clear differences regarding gender, with a pattern of decreasing well-being, year after year, which is different for boys and girls. These differences could suggest the need to include some actions which are targeted specifically to boys or girls when undertaking activities to promote well-being.

On the other hand, the results show that the decrease in subjective well-being, in general also includes school well-being. This may have important repercussions regarding academic performance and integration in school. The information obtained invites action to be taken in educational centres that may compensate this decrease, so that the dynamics that take place in the classroom contribute to the maximum development of competences and abilities for the students, in turn increasing their motivation and implication in the educational centre.