1 **Italian youth's sentiment about world and life and school and**
2 **rights/duties: youth in a bubble and the education emergency, a field**
3 **research**

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12 *The endless cycle of idea and action,*
13 *Endless invention, endless experiment,*
14 *Brings knowledge of motion, but not of stillness;*
15 *Knowledge of speech, but not of silence;*
16 *Knowledge of words, and ignorance of the Word.*
17 *All our knowledge brings us nearer to our ignorance,*
18 *All our ignorance brings us nearer to death,*
19 *But nearness to death no nearer to God.*
20 *Where is the Life we have lost in living?*
21 *Where is the wisdom we have lost in knowledge?*
22 *Where is the knowledge we have lost in information?*

23 (T.S. Eliot – The Rock, 1934)

24 *Where is the information we have lost in data?*

25 (IT Experts – 2^d half of XXth Century)

28 Abstract

29 **Background.** Youth is a deeply studied social component but mainly as an object of
30 investigation or, when addressed as a subject to be investigated, mainly from a psychological
31 stance. This social component “will inherit the World” but its point of view on present times
32 reality and its vision about actual problems and perspectives are scarcely investigated. One of the
33 main issues linked to youth is the educational emergency: educational systems in the
34 industrialized societies are in a crisis, given that they use great amounts of resources but their
35 effectiveness is progressively declining and their action results in a growing inadequacy of
36 preparation and in a shrinking of competences for the young.

37 **Methodology.** We surveyed a sample of Italian Youth, specifically 111 students of
38 4th and 5th year (the last ones) of Italian High School (age 17-19). We used an opened
39 answer questionnaire, divided into 4 Sections (the World, Life, School/Education, and
40 Rights/Duties) and collected data through support by the involved schools. Questionnaire
41 filling was totally anonymous and no personal data were collected. We chose a qualitative
42 approach and did not predispose any category in which the answers should be distributed;
43 rather, we aimed to examine in deep all the answers and draw “from the inside” the
44 categories to be used. That’s what we did. We pointed out 5 categories, cut across the 4
45 Sections of the questionnaire, which substantially described in dichotomous variables the
46 degree of openness of the respondents’ stances: social dimension (close/open), spatial
47 horizon (near/far), time horizon considered (present vs. past-future), the own sense of
48 responsibility (passive/active), and realism (concrete/fantastic). Through the distribution of
49 the answers in such categories we built radar-shape graphics representing the respondents’
50 point of view.

51 **Principal Findings.** At first we checked the amount of the unanswered questions and the
52 text of the answers in order to assess the suitability of collected data. We found that our sample
53 had answered willingly and sincerely to our questions. About the qualitative analysis, we found
54 that the emerging picture revealed narrow visions, almost exclusively focusing on present time, a
55 tendency to remove responsibility and a preference for unrealistic stances. We created the image
56 of the “bubble”: it looked like if the sample was included in a bubble preventing the widening of
57 minds, visions and actions. This can be interpreted as a substantial unpreparedness to active life
58 and to the global problems young generations will face in their aging. This makes even more
59 crucial the educational emergency: diffusion of culture and cultural contents must be improved,
60 but this is not just a question of learning more contents and acquiring more competences. The
61 question is to mature the role of “citizens of the World”, the only way youth has to effectively
62 tackle the global challenges they are going to directly face in next years.

63

64 **Introduction**

65 The experimental subject of our research has been Italian youth: we aimed to develop
66 knowledge on such subject. The first question we tried to answer has been: what kind of
67 knowledge do we want to develop? The epigraph we chose ([Eliot, 1934](#)) is a poetic
68 representation of possible different kinds of knowledge; in epistemology, as well as in the history
69 of sociology and philosophy, we can refer to the long and still lasting debate about the distinction
70 between *erklären* (German word which means “explain” and deals with the unfolding and
71 unveiling of something that was folded or covered) and *verstehen* (i.e. “comprehend”, which
72 deals with a deeper understanding of the phenomenon under investigation, not only a wide
73 information screen rather a tuning with it and its context and an interpretation of its profound

74 nature also from the point of view of the observed subject). See, for example: [Dilthey, 2013](#);
75 [Schutz, 1974](#); [Weber, 1958](#); [Husserl, 1950](#).

76 These considerations deal with our fundamental methodological choices, oriented
77 towards the second concept as it will be overtly clarified in the “Method” section. We reckoned
78 that such an understanding was exactly suitable in order to develop comprehension about such a
79 critical phenomenon like the educational emergency.

80 Youth is a widely studied component of modern societies (for a survey of such research
81 development: [Cavalli & Leccardi, 2013](#)). We propose to split such studies in two main
82 categories: those which consider youth as an object of investigation and those which consider it
83 as a subject to be comprehended. In the first category we will take into account three kinds of
84 researches, as first the sociology stance: researches of this kind aim to define what is youth, what
85 is its quantitative weight in the society under investigation and how the young can be distributed
86 into the usual sociological bins. As second, as a sub-component of the sociology studies, we will
87 take into account the educational stance, given that a large amount of young people undergoes
88 educational courses or training and given the importance of such stance. Then, as third, we will
89 take into account the economy stance: youth constitute an important consumer sector, so
90 marketing and advertising study it in order to profile such sector and enhance its consumerism.

91 In the second category (youth as a subject to be comprehended) researches mainly refer to
92 samples (often small ones) investigated under a psychological profile. This leaves insufficiently
93 covered by research the investigation of youth’s subjective sentiments from a collective point of
94 view; it is what we tried to do with the research we are here presenting because such subjective
95 sentiment is a decisive factor for designing effective interventions.

96 Youth as an object of investigation / I – General sociology. One main question sociology
97 tackles is what is youth. Such definition is linked to the type of society under investigation

98 because the differences can be striking, as we can see contrasting industrialized society with
99 developing countries. Just a couple of examples: as first we can consider the people age
100 distribution and the age mean, parameters which allow us to distinguish “young” and “old”
101 societies ([Livi Bacci, 2011](#); [Golini, 2009](#)); as second we can consider some parameters to define
102 when a young becomes adult, like the age at marriage, the age young leave parents’ home, when
103 people start working, and the age at first child ([Spanò, 2018](#); [De Luigi, 2007](#)). Our research
104 specifically refers to an industrialized country (Italy) in which the adolescence phase is extended
105 at least to the age of a High School degree and the condition of “young” can reach 40 years, if
106 not more ([Istituto Giuseppe Toniolo, 2020](#); [Livi Bacci, 2008](#)).

107 Once the youth borders are defined, sociological studies focus mainly the traditional
108 social characteristics of the samples and distribute them in bins referred, e.g., to the labour
109 market (employed, unemployed and so on), to the personal autonomy degree (independent
110 residence vs. remaining c/o one’s own family and so on), to the use of public services (transport
111 and others), to the social life (friends, couple relations, socializing in pubs and other public
112 venues and so on) and to a lot of other criteria ([Istituto IARD 2018](#); [ISTAT 2014](#)). For a social
113 critic stance an example is [Ambrosi & Rosina, 2009](#). Interpretations about the subjective
114 perspectives and points of view about the condition of being “young” are usually sparse in this
115 kind of researches.

116 Youth as an object of investigation / 2 - Education. Education can be considered a sub-
117 section of sociological studies and appears to be a very relevant one given that, for a very large
118 part of young people in industrialized societies, the first part of youth is dedicated to such
119 activity. With “first part of youth” we mean an age bracket between about 18 years (full age) and
120 23 years (usually the end of University studies, see [ISTAT, 2014](#)); the importance of educational
121 studies is linked to a contradiction emerged in industrialized societies in the second half of XXth

122 Century, i.e. the growing inefficacy of the educational systems. This is a worldwide problem,
123 either for the difficulties to access education ([UNESCO, 2017/8](#)) or for the success of young
124 people in education ([UNDP, 2016](#); [World Bank, 2018](#)), and is clearly apparent in Italy ([OECD,](#)
125 [2019](#); [INVALSI, 2017](#)) as this country employs great economic and social resources in education
126 while its students competences and school results rate very low in international rankings
127 ([INVALSI, 2015](#); [ISFOL, 2014](#)).

128 Such phenomenon is well known, even though effective counter-measures have not yet
129 been found out; rather, specific evidence of some correlated degenerative manifestations, like the
130 early abandoning of education courses or the NEET¹ one has been detected and studied ([Agnoli,](#)
131 [2014](#); [Tosi, 2018](#)). It rarely happens that researches of this kind report about the students' point of
132 view on their education.

133 Inside this educational emergency, a special chapter is the Science education one. In the
134 USA it has been especially debated ([Ruggeri, 2017](#); [Salovey, 2018](#)), also in connection with
135 methodological issues ([Wieman, 2014](#); [Freeman et al., 2014](#); [Gibson, 2015](#)) and with the
136 question of the relationship between STEM disciplines (Science, Technology, Engineering and
137 Mathematics) and Humanities ([Horgan, 2018](#)). Science study results difficult and students tend to
138 avoid or lighten it as most as possible; the turnover of STEM teachers in American Colleges is
139 higher with respect to other disciplines teachers, what is also linked to the low rating of their
140 work expressed by students. But STEM disciplines are crucial in advanced societies and a
141 solution for this divergence should be rapidly found.

142 *Youth as an object of investigation / 3 - Marketing.* More than 60 years ago Vance
143 Packard, an American journalist and social critic, published “The hidden persuaders” ([Packard,](#)
144 [1958](#)), a book in which he unveiled and criticized the techniques (drawn from motivational
145 researches and psychological studies) employed by advertising in order to manipulate

146 expectations of consumers and induce desire for products. Since then on, strategies and tactics
147 and techniques of advertising have greatly developed and become more and more sophisticated
148 ([Cheli, 2002](#)) and youth is one of the targeted market sectors with dedicated products of any kind
149 ([Capea, 2017](#); [Smith, 2010](#)). In this case, knowledge extension is not the goal of the studies;
150 rather, knowledge is an economic tool employed for boosting business and profits ([Williams &
151 Page, 2011](#)).

152 The young people market sector analyses are reaching a high degree of sophistication, for
153 example through distinguishing a succession of “generations” having specific characteristics and
154 related consumer behaviours, what leads to a fine distinction of sub-sectors and relative profiling.
155 Starting immediately after the end of the Second world war (1946), and leaving apart the “baby
156 boomers” and “X” Generations (up to 1980 newborns), we have the “Y” Generation (also
157 indicated as “Millennials”, born 1981-96) and the “Z” Generation (also named “Zoomers” or
158 “Digital Natives”, born 1996-2012). But the story does not end here: they who are today still
159 children and were born from 2013 on are yet targeted as the “Alpha” Generation, which is
160 predicted to extend up to about 2025. For a synthetic representation a synoptic chart can be seen
161 on Wikipedia (https://en.wikipedia.org/wiki/Generation_Z); the origin of the expression
162 “Generation Z” is ascribable to [Prensky, 2001a](#) and [Prensky, 2001b](#). On this subject books have
163 been published, like the one of [Dingli & Seychell, 2015](#), and dedicated online magazines can be
164 found; for example, in Italian, *Inside Marketing*. (<https://www.insidemarketing.it/>), with
165 dedicated pages to the marketing generation analyses
166 (<https://www.insidemarketing.it/glossario/definizione/generazione-z/>). As other references can
167 be seen [Bichi & Pasqualini, 2018](#); [ISTAT, 2016](#).

168 Youth as a subject to be comprehended. This kind of researches is closer to our approach,
169 given that it focuses young people as a subject; in this sense, it is mainly a domain of psychology,

170 rather than sociology. This means that often the attention of the researchers concentrates better on
171 deviance aspects instead of ordinary ones; phenomena like hikikomori² and addictions of various
172 kinds are widely studied (for example [Takahiro & Kato, 2019](#)) as well as some acknowledged
173 actual behavioural pathologies like autism ([Federici et al., 2020](#); [Gallese & Rochat, 2018](#);
174 [Gallese et al., 2012](#); [Zappella, 2005](#); [Frith, 1989-2009](#)) or borderline behaviours like ADHD
175 (Attention-Deficit / Hyperactivity Disorder) and SLD (Specific Learning Disabilities, like
176 dyslexia and others) in young people, also with highly specialistic studies. For example about
177 ADHD, what is it and how to treat: [American Psychiatric Association, 2013](#); [Steinau, 2013](#);
178 [Rigoni et al., 2020](#); [Danielson et al., 2018](#). About SLD: [McDowell, 2018](#); [Hasselman, 2015](#);
179 [McArthur et al., 2015](#); [Cottrell, 2014](#).

180 A specialized subset of this kind of researches can be considered the investigation about
181 the ICT use by young people and the psychological effects of it; the latest generations we
182 reminded in previous subsection are “digital natives” or something similar and seem to have a
183 special relationship with ICT. Some examples of dedicated researches: [Blum-Ross et al., 2018](#);
184 [Rodriguez-Gomez et al., 2018](#); [Twenge et al., 2017](#); [National Children’s Bureau, 2015](#); [Elwick et](#)
185 [al., 2013](#); [Lahtinen, 2012](#); [Fallahi, 2011](#).

186 In the end, a special mention to a work reported in a post of Scientific American
187 (September 19th, 2017: [https://www.scientificamerican.com/article/extended-adolescence-when-25-is-](https://www.scientificamerican.com/article/extended-adolescence-when-25-is-the-new-181/)
188 [the-new-181/](https://www.scientificamerican.com/article/extended-adolescence-when-25-is-the-new-181/)) which seems to use an approach similar to the one we used ([Twenge & Park, 2017](#)).
189 Such similarity depends on the kind of knowledge searched by the authors, who apparently aim
190 to deeply interpret the phenomenon they are studying rather than simply collect and display
191 information about it.

192

193 **Method**

194 Ethical aspects. Our work is not a clinical trial and no experimentations on the
195 participants took place. In addition, no personal data was collected or anyhow involved in the
196 survey. About consent, no need of collection by the authors for the reasons here below detailed.

197 Our research surveyed a sample of Italian students of the two High School terminal years
198 (4th and 5th year of course, age 17-19); in sampling, we did not directly contact the experimental
199 subjects but schools (all of them public schools), and we carried on data collection through them.
200 Exactly, we selected some Italian (Tuscany Region) public High Schools and sent their
201 Directions a written information document requesting authorization and support. Schools which
202 accepted our proposal authorized our survey through a direct disposition by the Headmaster or
203 through their internal Councils.

204 In dedicated briefings with the school Directions we shared a procedure: a class will have
205 been chosen (1 class each school, 2 in just one case) and data collection (filling of an anonymous
206 questionnaire) will have been carried out by one teacher of the class during her usual didactic
207 activity. We delivered questionnaires to schools and instructed teachers to inform their students
208 of the research purposes of the survey, to let them freely (and anonymously) fill the
209 questionnaire, and at the end collect the filled questionnaires.

210 Then we picked up the filled questionnaires from the schools and checked for anonymity:
211 no identification sign was allowed, and actually no collected questionnaires contained any. Filled
212 questionnaires were either in handwritten or digital shape. The digitally filled ones were PDF
213 files named with random codes in order to guarantee anonymity of the experimental subjects. No
214 personal data was collected; even the classic statistical indicators for disaggregation were
215 reduced to sex and to the type of high school attended (Technical High School or Classical
216 Studies High School).

217 **To be noticed:** Italian public schools are public institutions due by law to protect their
218 students against any possible intrusion in their school attendance. For this they establish internal
219 rules, procedures and protocols in order to assure the correctness of their activities. For example
220 they collect the general consent of their students (or of the parents, in case of under age students)
221 for school activities at the beginning of the Course year (it is a condition for enrolment). In
222 addition, schools, as well as any other organization, have to comply with the GDPR, the
223 European Union General Data Protection Rule (<https://eur-lex.europa.eu/eli/reg/2016/679/oj>).

224 Research goals and rationale. Considering the background outlined in Introduction, we
225 designed our research with the intention to understand the stance and the vision of an Italian
226 youth sample on World, Life, School and the education system in general, the Rights & Duties
227 question. We wanted to intercept their sentiment about these topics in a meaningful passage, so
228 we focused on young people at the threshold of a critical change in their life: the proximity of
229 their High School ending and the consequent choices to be done. Actually: 17 to 19 year old
230 students enrolled in the two terminal classes (4th and 5th Course year) of their studies.

231 We consider such phase of youth life especially meaningful in order to define young
232 people's values because students face important choices and acquire the faculty to get a fully
233 active social role. In fact, at the middle of the age range we explored, they become legally adult:
234 at the age of 18, Italian people can vote and get a driving license, in addition to express their
235 choices about University studies (if and in which field). In short, we wanted to answer three main
236 questions: who are young people? What's their point of view about life, which is their
237 representation of the world they live in, and what meaning and relevance do they ascribe to their
238 experiences? Which indications can we draw from our survey about the educational emergency?

239 To answer our questions, we at first had to choose between qualitative and quantitative
240 research. Methodological debate is a fundamental concern in sociology from its origin and we

241 can distinguish different approaches: a strict separation or an attempt to combine different
242 methods ([Cipolla & De Lillo, Eds., 1996](#)). Our research's object and our attempt to reach a
243 deeper understanding of youth's point of view led us to a qualitative approach. So, we had no
244 urgent criteria in the sample's construction, and we tested youth's sentiment through a totally
245 open questions questionnaire. Being all the same ready to combine different techniques in order
246 to reach a better knowledge, we treated collected data with (minimally) quantitative and (mainly)
247 qualitative methods to outline an analogical, rather than digital, understanding of our participants
248 which could give us the answers we were searching.

249 Given the kind of knowledge we were addressing, we did not pre-set categories in which
250 the answers could be distributed; rather, we intended to draw categories from the reading and the
251 analysis of the answers, and this we did. In other words: we did not aim to study the distribution
252 of the sample in pre-set categories (in such case we would have used closed questions instead of
253 open ones) but to understand the standpoint of the experimental subjects, letting categories
254 emerge from their answers.

255 The questionnaire. We defined 4 areas of investigations: World, Life, School, and Rights
256 and Duties. The exact wording of the questions was defined through a dedicated committee
257 (composed by the authors and two external members) which discussed and agreed on the most
258 effective and unambiguous phrases to be used.

259 The question sequence in each area was constructed in order to bring out youth's
260 sentiments, attitudes, and experiences. The questionnaire structure intended to draw from the
261 sample a reliable description of their world, of their social environment, their relationships and
262 feelings, and the relevance of school and education for them.

263 In the end, the committee jointly considered the resulting questionnaire as very
264 challenging; this was consistent with our attempt to offer a different experience to students,

265 beyond the common belief that adolescents cannot understand or have an opinion on such
266 themes, and to foster students to share their ideas and points of view. In the Supporting
267 Information the original questionnaire (in Italian) can be found together with an English version
268 of it.

269 *The sample.* We contacted 11 High Schools in two Tuscany Provinces; 6 of them (54,5%)
270 answered positively to our proposal. Given the sampling method we used, we had no random or
271 representative sample; this was not critical for our research because of our chosen subject and
272 goals.

273 In total, 7 classes from 6 different High Schools were surveyed, and we collected 111
274 questionnaires (data collection phase lasted from the end of 2018 and Spring 2019). The sample
275 composition was the following: female respondents were 71 (64%), male 40 (36%); Technical
276 High School students were 40 (36% of respondents), Classical Studies High School ones were 71
277 (64% of respondents); see [Table 1](#).

278 *Data processing method.* About quantitative analysis, it was restricted to data the easiest
279 to quantify. Exactly, the proportion of answered vs. unanswered questions and the length and
280 distribution of the answer texts.

281 About qualitative analysis, answers to open questions cannot be directly tallied, they must
282 be interpreted; however, some kind of quantifying is necessary in order to reduce the subjectivity
283 of the interpretation. As said above, we had intentionally chosen to pre-set no category before the
284 reading of the filled questionnaires but to extract categories from them. So, the first step was a
285 repeated reading of those questionnaires; it was performed by two people (the two authors) who
286 at first discussed and shared the main criteria for the interpretation of the answers. The readings
287 were accomplished autonomously; then, through dedicated sessions, the first interpretations were

288 contrasted, a set of categories was defined and criteria through which the questionnaire answers
289 should be assessed were shared.

290 Such categories were related to the openness of the point of view expressed by the sample
291 and cut across the 4 areas (World, Life, School/Education, Rights & Duties) of the questionnaire;
292 they were the following.

293 Social dimension (closed vs. open): do the respondent's answers show a narrow vision of
294 her position in her society (*closed*, e.g. totally individualistic, ego-centric) or a wider one, with an
295 extension of her point of view to her social environment (*open*, e.g. showing attention to others
296 and others' problems)?

297 Spatial horizon (near vs. far): are the respondent's answers related just to her close
298 physical environment (*near*, e.g. her municipality, her town, her neighbours) or do they
299 encompass a wider horizon (*far*, e.g. the Nation, Europe, the World)?

300 Time horizon (past vs. present vs. future): are the respondent's answers concentrated on
301 *present* time situation or do they extend considerations about *past* and *future*?

302 Responsibility (passive vs. active): do the respondent's answers show a mainly passive
303 attitude (*passive*, e.g. something like "I have no responsibility in what happens", "It's all a
304 question of luck") or a mainly active one (*active*, e.g. something like "My choices are important,
305 I can do something and I will do")?

306 Concreteness (fantastic vs. concrete): are the respondent's answers mainly oriented to
307 unrealistic stances (*fantastic*, e.g. generic or stereotyped utterances, imaginations) or to realistic
308 ones (*concrete*, e.g. taking into account concrete data, situations and problems related to the
309 answered question)?

310 The evaluators, using the shared criteria, assessed each answer attributing it, for each
311 category, the score "1" to the alternative consistent with the answer; no score for the not-

312 answered questions and no score for the answers which resulted too ambiguous. Each evaluator
313 assessed 111 *questionnaires* x 26 *items* = 2,886 answers attributing 2,886 *answers* x 5 *categories*
314 = 14,430 values (including the cases in which no score was attributed, given that the answers
315 were all the same assessed). Totals resulting for each category were confronted among the
316 evaluators and means were calculated; final tables were used to build radar-shape graphics for
317 each questionnaire area and for the whole of the questionnaire (five axes radar, one axe for each
318 category). Data disaggregation was carried out for sex and for type of school.

319

320 **Results**

321 Starting the analysis phase, we considered that we could not rely on the assumption that
322 the questionnaires were filled completely and willingly. The answers of a so young sample to our
323 stimuli were almost unpredictable (exactly, this was one of the reasons for our research): they
324 could have answered in a careless and neglected way as well as in a provocative or disrespectful
325 one. So, our first questions were: did the sample answer? How much did its members answer?
326 Did they take seriously their commitment?

327 *Analysis first part: did they answer, how much and how?* At first, we explored the not-
328 answered parts of the questionnaires through tallying its empty parts and separating the item
329 from the full question accounts. Actually, several questions (# 1, 10, 12, 13 and 15) required
330 answers with up to three items, so that the whole questionnaire was composed by 16 Questions
331 with a total of 26 Items. Such distinction is useful in order to have a better comprehension
332 because the respondents could answer one of those questions without filling all the items; so, the
333 question was officially answered but, considering the items, we kept track of the possible
334 incompleteness.

335 [Table 2](#) data are relative to the not-answered items and full questions and comply with our
336 first point of interest (*did they answer?*); what can be seen is that the sample left a small amount
337 of unanswered items and questions. Our principal considerations about the resulting picture are
338 the following. (1) Not answered items and questions are gathered almost exclusively in the
339 second part of the questionnaire, from Question #10 on; we can imagine this happens for some
340 tiredness effects, after the filling of more than a half of a very demanding questionnaire. (2)
341 Percentages are very low, especially with regards to full questions neglected: less than 1% on the
342 whole. With regards to items, less than 5% result unanswered, almost exclusively in the final part
343 of the questionnaire (from Question #10 on). We think we can state that the sample, on the
344 whole, willingly answered the questionnaire. (3) About disaggregation by sex, differences
345 displayed are not relevant with regards to items. Some differences emerge with regards to the full
346 questions: male respondents show an unanswered percentage that is about the half of the females'
347 one and a similar proportion in the mean values. (4) About disaggregation by the type of school
348 attended, some relevant differences emerge: percentages of both unanswered items and full
349 questions in the Technical High Schools³ are four times those of the Classic ones; the proportion
350 of analogous mean values spans from 4 to 5 times.

351 Our second point of interest was "*how much did the respondents answer*"; we measured
352 the answer length through the word processor automatic function of counting the characters and
353 we built [Table 3](#). Texts of all the answers amount to a total of 217,280 characters (spaces
354 included); considering that an A4 page, very tightly filled with Times New Roman 12 characters,
355 single spacing, 52 lines per page, can contain 4,784 characters, this means that the provided texts
356 correspond to about 45.42 pages in that format. As much as to say a mean value of 0.41 pages or
357 about 21.28 lines for each respondent in such format.

358 General statistical indicators (column “All the answers”) show a mean of 1,957.48
359 characters for each respondent (SD 1,114.85, Coefficient of Variation 0.53) and a length range
360 from 4 to 1,253 characters for a single answer⁴. Disaggregation by sex shows differences: the
361 mean answer length of men is just the 71,2% of the women’s one and the maximum answer
362 length of men is a bit less than half the women’s one. Disaggregation by type of school show a
363 greater difference about the mean answer length (Technical HS one is just above the half of the
364 Classic HS one) and a similar difference about the maximum answer length (Technical HS one is
365 a bit less than half the Classic HS one).

366 We think we can conclude that the sample answered the questionnaire willingly and in an
367 acceptably complete way, providing us with a satisfactory amount of data to be treated. And what
368 about our third point of interest, the possible provocative or disrespectful nature of the answers?
369 Out of all the 2,745 answered items (2,886 total items minus 141 unanswered) we found out just
370 2 (two) answers we could consider a mild critique to our initiative or a slight teasing. We think
371 we can conclude that the answers were given seriously. On these bases we tackled the qualitative
372 part of our analysis.

373 Analysis second part: the emerging picture. We explained in the Method section how we
374 passed, through a repeated and multiple reading of the full text answers and a sharing of criteria
375 among three evaluators, from the four areas of the questionnaire (World, Life, School/Education,
376 Rights & Duties) to the five categories of evaluation of each answer: Social dimension (closed
377 vs. open), Spatial horizon (near vs. far), Time horizon (past vs. present vs. future), Responsibility
378 (active vs. passive), Concreteness (concrete vs. fantastic). Results are displayed in Figures 1-5 as
379 radar-shape graphics.

380 The rationale of these graphics comes from the leading idea we drew from the repeated
381 and multiple reading of the full answers; such idea, shared among the evaluators, was that the

382 answers tended to coalesce in easily detectable contrasts between closed or open concepts,
383 restricted or wide ideas, self-centring or expanding toward others and society, and so on. We
384 could contrast narrow visions of society, world, life and so on against large ones, what we made.
385 Consider that dots on the radar-shape graphs display the values of the percentage represented by
386 the large, wide and open alternatives on the total score of each area; what means that the more
387 the points are near to the centre, the narrower, the more closed and restricted is the stance they
388 represent.

389 The Time Horizon category is special because we gave it three alternatives (past, present,
390 future) rather than two like all other categories. Actually, the sample's stance about the three time
391 perspectives was relevant for our research; however, in order to compare this area results with the
392 others, we needed a dichotomous representation. The absolute prevalence of "present" alternative
393 choice by the sample induced us to contrast such choice with the sum of the other two,
394 comparing the present-time centred stance with the stances centred on different time
395 perspectives, regardless of their direction toward the past or the future.

396 [Figure 1](#) refers to aggregated data from all the answered questionnaires and displays the 5
397 graphics for Totals (all the answers) and for the 4 questionnaire areas. We can see that the
398 resulting lines are all close to the centre, less or much less than 50% of open / wide / outward
399 stances; the closest ones are referred to the School and education area. One exception was
400 recorded just for two values of the area "World" (social dimension and spatial horizon), what was
401 expectable in the sense that our questions themselves, in this area, invited to a wider look. All the
402 same, such values exceed 50% but do not reach 60%.

403 [Figures 2-3](#) display a totally analogous picture for, respectively, women and men, sex
404 being the first disaggregation criterion we applied. What is relevant, in our opinion, is that the
405 resulting picture, even though coming from a different data subset, is quite identical to that of

406 [Figure 1](#), both for women and for men; differences are really negligible. [Figures 4-5](#) repeat the
407 schema for the other disaggregation criterion we used: Technical or Classic Studies High School
408 attendance. The picture totally confirms the previously presented results; just a bit greater
409 expansion showed by the Classic High School students in each area can be observed. The most
410 apparent example of this is the “World” area, in which the two outstanding values (social
411 dimension and spatial horizon) slightly exceed 60% for the “classic” but remain under 50% for
412 the “technical”.

413

414 **Discussion**

415 At first we must consider that our research has been completed before the SARS-CoV-2
416 pandemic broke out. It should be interesting to investigate if such pandemic changed Italian
417 youth’s points of view and in which directions; we are considering a new research about that
418 subject. About this present research, the resulting picture, from a basic point of view, is that a
419 group of Italian young students at the end of their High School courses voluntarily and willingly
420 and (it can be comfortably assumed) sincerely answered our questions. In their answers we think
421 we can find useful indications about some fundamental ideas and attitudes this sample shares
422 about reality they live in, and about themselves and their life perspectives.

423 A warning before delving into the discussion: the interpretation we are going to propose
424 is not an evaluation of the respondents at a personal level; we have no judgement to express
425 about either the sample members (we did not collect any personal data and we did not even meet
426 them) or the generation they belong to. Our focus will be on those fundamental ideas and
427 attitudes we pointed at through our interpretation and on the possible social issues related to
428 them; all this in the context of the present time World, as far as it can be known.

429 We gathered narrow visions, restricted horizons, passive attitude, and scarce concreteness.
430 The great majority of the answers return thoughts related to the close social and physical
431 environment, restricted to the inhabited venues and to the present time. In addition, proactive
432 attitudes are rare and abstractness largely prevails with respect to the perception of actual and
433 concrete issues. Moreover, it is highly meaningful what does NOT emerge in the questionnaires
434 answers: subjects like unemployment, gender disparity, racism, violence, and globalization are
435 quite absent in the sample's answers. To say nothing of values: we found very few references to
436 values in the questionnaire answers. Just to give a more definite idea of this we have built [Table 4](#)
437 and [Table 5](#), which display the occurrence of rare or special words in the collected
438 questionnaires.

439 About this, a first consideration is that it is surprising, given that we live in the Internet
440 Age and that participants belong to the “Z generation”, the “Digital natives” one. Before the
441 pandemic (that was the moment of our survey) the World had never been so interconnected (for
442 example through digital technologies and the possibility to contact in real time every corner of
443 the Earth) and so easy to be travelled through (thanks to low-cost flights and the opportunities
444 offered by the “tourism industry” everywhere). It is surprising that, apparently, such huge
445 potentialities did not open the users' minds. It is like if this youth were in a bubble, something
446 like a narrow environment (social as well as physical) dipped in an everlasting present time in
447 which one has few (quite no) responsibilities and can leave a great room to imagination and
448 fantasy.

449 A second consideration starts from the thought that these young people “will inherit the
450 World”, so to speak. On the one hand, it is simply natural: old generations, rich or poor, wise or
451 ignorant, will die. It is also natural that speaking of “generations” is something artificial: life
452 cycle is a continuum, segmenting it is fictitious. On the other hand, all the same young people

453 will be on Earth when old ones will be disappeared; and certainly they will live in future societies
454 having structures and economic and social processes which we actually cannot imagine, today.
455 However, we are already certain of some challenges that such societies will have to tackle; what
456 kind of reality are going to face those who will “inherit the World”?

457 The issues which are challenging the World, and which will be challenging it for a
458 presumably very long time, are universally well known and largely shared; so we will not insist
459 in details and in listing references and will just give some main hints: climate change,
460 overpopulation, environment pollution, the necessity of actively managing cultural changes, a
461 dramatic inequality spread all over the World and in every field of human activity (gender
462 disparity is just one out of many), the revival of brute force as an instrument to approach political
463 and social issues, economic crisis, fragility of democracy are already actual issues, rather than
464 future ones ([Piketty, 2014](#); [Wilson, 2016](#); [Wadhams, 2017](#); [Lewis & Maslin, 2018](#); [McNeill &](#)
465 [Engelke, 2018](#)). And it is not all; just to add one, the present times COVID-19 pandemic, experts
466 say, will not be the last and is not the big one. Our conclusion is simple: they are not ready. The
467 game is not yet over but, at the threshold of fully entering social life, they are not ready. They are
468 not culprit of all this, and maybe they are too young; however, they do vote in elections, and
469 some Italian politicians are planning to further lower the full age. The question is not their
470 responsibility about the planet fragility; rather, it is that they behave like if it were something
471 regarding someone else. They are not alone, many people of every age in advanced societies
472 share such attitude; the question is that they will be here, directly exposed to the actuality of
473 those problems, when the old will be dead.

474 About such unpreparedness, we cannot avoid the reflection that education systems failed
475 their mission. Education systems means not only schools, rather the whole societies of the
476 industrialized countries (the self-named “advanced societies”); actually, it is well known that

477 several critical parts of knowledge are exchanged through informal education, for example the
478 values which a society lays on. Huge investments in educational institutions are resulting in a
479 progressive spread of ignorance and carelessness. So, what can be done?

480 About the educational emergency we were asking, in the Method Section, which
481 indications could we draw from our survey. The answer is clear, in our opinion: certainly youth
482 need a wider and deeper knowledge about scientific as well as humanistic contents; however, the
483 main aspect is not a technical and a content one. What they firstly need is the acquiring of a
484 wider vision of world and society and of their problems in the present time world; technicalities
485 come later. The principal issue of youth in a globalized world is to understand the implications
486 related to the playing of an active role as citizens of the World, even though endowed with the
487 different cultures of their Home-countries. This is the first time in history that human beings face
488 such a problem, and it looks like to be very difficult to be solved because it cannot be solved
489 *inside* the educational institutions, let alone *inside* single schools and classes. The contrasting of
490 STEM disciplines face to Humanities is a good subject to be disputed; however we think it
491 should be wise not to reduce such dispute to the preeminence of scientific contents with respect
492 to Humanities ones, or the other way round. The question is that culture in general must come
493 back to be a shared *value* in the advanced societies, what requires a joint effort by institutions as
494 well as parents and the whole surrounding society.

495

496 **Conclusions**

497 In our opinion, the culture question is the most critical one: needs are increasing very
498 rapidly while preparedness is dropping. Beyond fictitious distinctions, we humans really are all
499 in a same boat and young and old people should find a way to go ahead together in order to

500 tackle the planet Earth challenges. A microscopic example of this can be offered by the authors of
501 this research, a 29 years old woman and a 71 years old man.

502 Then, education systems, which are continuously studied, should be focused once more
503 and from a pragmatic point of view, in order to catch indications aimed to improve their
504 effectiveness. Such indications should not be restricted to didactic and class approaches and
505 methods; rather they should consider the whole society as an education system and should strive
506 to go beyond the focusing on contents, better concentrating on pragmatic approaches to life and
507 living. Our societies, self-named “knowledge societies”, still need fast knowledge (not just
508 “information”) diffusion with high efficacy and reliability because such objectives have not yet
509 been achieved.

510 From a research slant, the most urgent indication we draw from our work is the necessity
511 to contrast our results in different directions, starting from the consideration that this research
512 cannot be fully replicated: COVID-19 pandemic broke out about one year ago, after our data
513 collection ended, and affected the entire World, so it will be impossible to survey once more in
514 previous conditions. On such basis, the possible directions for contrasting are three: (1) An
515 analogous research on a similar sample aimed to verify the effects of SARS-CoV-2 pandemic on
516 ideas and attitudes of young people in industrialized societies; (2) An extension of the survey to
517 older-young people (around 30 years old) in order to verify possible changes in ideas and
518 attitudes linked to ageing; (3) A cross-country survey in order to compare our picture (related to
519 Italy and Italian young people) with those from other countries and other cultures.

520

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523

524

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531

532 **References**

533 Agnoli MS. 2014. *Generazioni sospese. Percorsi di ricerca sui giovani NEET*. Milano: Franco
534 Angeli.

535 Ambrosi E, Rosina A. 2009. *Non è un paese per giovani. L'anomalia italiana: una generazione*
536 *senza voce*. Venezia: Marsilio.

537 American Psychiatric Association. 2013. *Diagnostic and Statistical Manual of Mental Disorders*,
538 5th edition. Arlington, VA., American Psychiatric Association.

539 (<https://www.cdc.gov/ncbddd/adhd/diagnosis.html> last reviewed September 2020).

540 Bichi R, Pasqualini C. 2018. La condizione dei millennials in Italia: la fotografia del Rapporto
541 Giovani. *Sociologia e ricerca sociale* 117: 115-123 DOI: 10.3280/SR2018-117007

542 Blum-Ross A, Donoso V, Dinh T, Mascheroni G, O'Neill B, Riesmeyer C, and Stoilova M. 2018.
543 *Looking forward: Technological and social change in the lives of European children and young*
544 *people. Report for the ICT Coalition for Children Online*. Brussels: ICT Coalition.

545 https://www.ictcoalition.eu/medias/uploads/source/ICT%20REPORT_2018_WEB.pdf (last
546 accessed Nov. 26, 2020).

547 Capea F. 2017. *Post millennial marketing. Marketing di nuova generazione*. Milano: Franco
548 Angeli.

549 Cavalli A, Leccardi C. 2013. Le quattro stagioni della ricerca sociologica sui giovani. *Quaderni*
550 *di sociologia* 62: 157-169. DOI: <https://doi.org/10.4000/qds.464>

551 Cheli E. 2002. *La realtà mediata. L'influenza dei mass media tra persuasione e costruzione*
552 *sociale della realtà*. Milano: Franco Angeli.

553 Cipolla C., De Lillo A. (a cura di) 1996. *Il sociologo e le sirene. La sfida dei metodi qualitativi*.
554 Milano: Franco Angeli.

555 Cottrell JM. 2014. The Definition, Identification, and Cause of Specific Learning Disabilities: A
556 Literature Review. *All Graduate Plan B and other Reports*. 434. [https://digitalcommons.usu.edu/](https://digitalcommons.usu.edu/gradreports/434)
557 [gradreports/434](https://digitalcommons.usu.edu/gradreports/434)

558 Danielson ML, Visser SS, Chronis-Tuscano A, DuPaul GJ. 2018. A national description of
559 treatment among U.S. children and adolescents with ADHD. *Journal of Pediatrics* 2018, 192,
560 240–246.e1.

561 De Luigi N. 2007. *I confini mobili della giovinezza. Esperienze, orientamenti e strategie*
562 *giovanili nelle società locali*. Milano: Franco Angeli.

563 Dilthey W. 2013. *La nascita dell'ermeneutica*. Genova: Il Nuovo Melangolo [Original edition:
564 Dilthey W. 1900. *Die Entstehung der Hermeneutik*].

565 Dingli A, Seychell D. 2015. Who Are the Digital Natives?. In: *The New Digital Natives*. Springer,
 566 Berlin, Heidelberg. DOI: https://doi.org/10.1007/978-3-662-46590-5_2

567 Eliot TS. 1934. *The Rock*. London: Faber & Faber.

568 Elwick A, Liabo K, Nutt J, Simon A. 2013. *Beyond the digital divide: young people and ICT –*
 569 *Report for CfBT Education Trust*.
 570 [https://www.educationdevelopmenttrust.com/EducationDevelopmentTrust/files/ad/ad0a4b70-](https://www.educationdevelopmenttrust.com/EducationDevelopmentTrust/files/ad/ad0a4b70-b216-4c2f-abf5-f9b356bf87ee.pdf)
 571 [b216-4c2f-abf5-f9b356bf87ee.pdf](https://www.educationdevelopmenttrust.com/EducationDevelopmentTrust/files/ad/ad0a4b70-b216-4c2f-abf5-f9b356bf87ee.pdf) (last accessed Nov. 26, 2020)

572 Fallahi V. 2011. Effects of ICT on the youth: A study about the relationship between internet
 573 usage and social isolation among Iranian students. *Procedia - Social and Behavioral Sciences*
 574 Volume 15 Pages 394-398, DOI : <https://doi.org/10.1016/j.sbspro.2011.03.110>

575 Federici A, Parma V, Vicovaro M. *et al.* 2020. Anomalous Perception of Biological Motion in
 576 Autism: A Conceptual Review and Meta-Analysis. *Sci Rep* **10**, 4576. DOI:
 577 <https://doi.org/10.1038/s41598-020-61252-3>

578 Freeman S, Eddy SL, McDonough M, Smith MK, Okoroafor N, Jordt H, and Wenderoth MP.
 579 2014. Active learning increases student performance in science, engineering, and mathematics.
 580 *PNAS June 10, 2014* 111 (23) 8410-8415; first published May 12, 2014;
 581 <https://doi.org/10.1073/pnas.1319030111>

582 Frith U. 2009. *L'autismo – Spiegazione di un enigma*. Roma-Bari: Laterza. [Original edition:
 583 1989. *Autism: Explaining the Enigma*. Cambridge (Mass., USA): Blackwell]

584 Gallese V, Rochat MJ, Berchio C. 2012. The mirror mechanism and its potential role in autism
585 spectrum disorder. *Developmental Medicine & Child Neurology* 28th Aug 2012. DOI:
586 10.1111/j.1469-8749.2012.04398.x

587 Gallese V, Rochat MJ. 2018. Forms of vitality: their neural bases, their role in social cognition,
588 and the case of Autism Spectrum Disorder. *Psychoanalytic Inquiry* 38:2 154-164. DOI:
589 10.1080/07351690.2018.1405672

590 Gibson SI. 2015. Promoting an active form of learning out-of-class via answering online “study
591 questions” leads to higher than expected exam scores in General Biology. *PeerJ* 3:e1322; DOI
592 10.7717/peerj.1322

593 Golini A. 2009. *Il futuro della popolazione nel mondo*. Bologna: Il Mulino

594 Hasselman F. 2015. Classifying acoustic signals into phoneme categories: average and dyslexic
595 readers make use of complex dynamical patterns and multifractal scaling properties of the speech
596 signal. *PeerJ* 3:e837. DOI: 10.7717/peerj.837

597 Horgan J. 2018. Why STEM students need Humanities courses. *Scientific American blogs*,
598 August 16, 2018. Available at: https://blogs.scientificamerican.com/cross-check/why-stem-students-need-humanities-courses/?utm_source=twitter&utm_medium=social&utm_campaign=sa-editorial-social&utm_content=link-post&utm_term=art-culture_blog_text_free&sf195756475=1
599 [need-humanities-courses/?utm_source=twitter&utm_medium=social&utm_campaign=sa-editorial-](https://blogs.scientificamerican.com/cross-check/why-stem-students-need-humanities-courses/?utm_source=twitter&utm_medium=social&utm_campaign=sa-editorial-social&utm_content=link-post&utm_term=art-culture_blog_text_free&sf195756475=1)
600 [social&utm_content=link-post&utm_term=art-culture_blog_text_free&sf195756475=1](https://blogs.scientificamerican.com/cross-check/why-stem-students-need-humanities-courses/?utm_source=twitter&utm_medium=social&utm_campaign=sa-editorial-social&utm_content=link-post&utm_term=art-culture_blog_text_free&sf195756475=1)

601 Husserl E. 1950. *Idee per una fenomenologia pura e per una filosofia fenomenologica*. Torino:
602 Einaudi [Original edition: 1913. *Ideen zu einer reinen phanomenologie und phanomenologischen*
603 *philosophie*].

604 INVALSI. 2015. *Indagine OCSE PISA 2015: i risultati degli studenti italiani in scienze,*
605 *matematica e lettura.* https://www.invalsi.it/invalsi/ri/pisa2015/doc/rapporto_PISA_2015.pdf
606 (last accessed Dec. 7th, 2020).

607 INVALSI. 2017. *Rilevazione Nazionale degli Apprendimenti 2016-2017.* [https://invalsi-](https://invalsi-areaprove.cineca.it/docs/file/Rapporto_Prove_INVALSI_2017.pdf)
608 [areaprove.cineca.it/docs/file/Rapporto_Prove_INVALSI_2017.pdf](https://invalsi-areaprove.cineca.it/docs/file/Rapporto_Prove_INVALSI_2017.pdf) (last accessed Dec. 7th, 2020).

609 ISFOL. 2014. *PIAAC-OCSE Rapporto Nazionale sulle Competenze degli Adulti, Roma: ISFOL.*
610 <https://www.isfol.it/piaac/i-risultati-di-piaac> (last accessed Dec. 7th, 2020).

611 ISTAT. 2014. *Generazioni a confronto. Come cambiano i percorsi verso la vita adulta.* Roma:
612 Istituto Nazionale di Statistica. <https://www.istat.it/it/files/2014/09/Generazioni-a-confronto.pdf>
613 (last accessed Dec. 7th, 2020).

614 ISTAT. 2016. *Rapporto Annuale 2016.* Roma: Istituto Nazionale di Statistica. [https://www.istat.it/](https://www.istat.it/it/files//2016/05/Ra2016.pdf)
615 [it/files//2016/05/Ra2016.pdf](https://www.istat.it/it/files//2016/05/Ra2016.pdf) (last accessed Dec. 7th, 2020).

616 Istituto Giuseppe Toniolo. 2020. *La condizione giovanile in Italia. Rapporto Giovani 2020.*
617 Bologna: Il Mulino

618 Istituto IARD e Laboratorio Adolescenza 2018 e 2019. *Adolescenti e stili di vita*
619 http://www.istitutoiard.org/wp-content/uploads/2018/12/Indagine-Adolescenti-2018_sintesi-
620 [risultati.pdf](http://www.istitutoiard.org/wp-content/uploads/2018/12/Indagine-Adolescenti-2018_sintesi-risultati.pdf); http://www.laboratorioadolescenza.org/res/site144680/res1501169_Risultati-
621 [indagine-def-2018-2019.pdf](http://www.laboratorioadolescenza.org/res/site144680/res1501169_Risultati-indagine-def-2018-2019.pdf)

622 Lahtinen HJ. 2012. Young people's ICT role at home – A descriptive study of young Finnish
623 people's ICT views in the home context. *Qual Quant* **46**, 581–597. DOI:
624 <https://doi.org/10.1007/s11135-010-9409-6>

625 Lewis SL, Maslin MA. 2019. *Il pianeta umano: come abbiamo creato l'Antropocene*. Torino,
626 Einaudi [Original edition: 2018. *The human planet: how we created the Anthropocene*. London,
627 Penguin Books Ltd].

628 Livi Bacci M. 2008. *Avanti giovani alla riscossa: come uscire dalla crisi giovanile in Italia*.
629 Bologna: Il Mulino

630 Livi Bacci M. 2011. *Storia minima della popolazione del mondo*. Bologna: Il Mulino

631 McArthur G, KohnenS, Jones K, Eve P, Banales E. *et al.*. 2015. Replicability of sight word
632 training and phonics training in poor readers: a randomised controlled trial. *PeerJ* 3:e922; DOI
633 10.7717/peerj.922

634 McDowell M. 2018. Specific learning disability. *Journal of Paediatrics and Child Health*. First
635 published: 07 October 2018. DOI <https://doi.org/10.1111/jpc.14168>

636 McNeill JR, Engelke P. 2018. *La grande accelerazione*. Torino, Einaudi [Original edition: 2013.
637 *Global interdependence: the world after 1945*. Cambridge MA, Harvard University Press].

638 National Children's Bureau. 2015. *ICT & Me - A research study examining how young people's*
639 *use of ICT and the amount of screentime impacts on GCSE attainment* (written by Richard
640 Nugent, Rachel Shannon, Helen McNamee, Frances Molyneaux). London: the National

641 Children's Bureau. https://www.basw.co.uk/system/files/resources/basw_35927-6_0.pdf (last
642 accessed Nov. 26th, 2020).

643 OECD. 2019. *Society at a Glance 2019: OECD Social Indicators*, OECD Publishing, Paris.

644 [https://www.oecd-ilibrary.org/social-issues-migration-health/society-at-a-glance-](https://www.oecd-ilibrary.org/social-issues-migration-health/society-at-a-glance-2019_soc_glance-2019-en)

645 [2019_soc_glance-2019-en](https://www.oecd-ilibrary.org/social-issues-migration-health/society-at-a-glance-2019_soc_glance-2019-en) (last accessed Dec. 7th, 2020). DOI:

646 https://doi.org/10.1787/soc_glance-2019-en .

647 Packard V. 1958. *I persuasori occulti*. Torino: Einaudi [Original edition: 1957. *The hidden*

648 *persuaders*]

649 Piketty T. 2014. *Il Capitale nel XXI Secolo*. Milano, Bompiani / RCS Libri SpA [Original edition:

650 2013. *Le capital au XXI^e siècle*. Paris, Edition du Seuil].

651 Prensky M. 2001a. Digital Natives, Digital Immigrants Part 1. *On the Horizon* Vol. 9 No. 5, pp.

652 1-6. DOI: <https://doi.org/10.1108/10748120110424816>

653 Prensky M. 2001b. Digital Natives, Digital Immigrants Part 2: Do They Really Think

654 Differently? *On the Horizon* Vol. 9 No. 6, pp. 1-6. DOI:

655 <https://doi.org/10.1108/10748120110424843>

656 Rigoni M, Zanardi Blevins L, Rettew DC, Kasehagen L. 2020. Symptom Level Associations

657 Between Attention-Deficit Hyperactivity Disorder and School Performance. *Clinical Pediatrics*

658 Volume 59 Issue 9-10, page(s): 874-884. (Article first published online: May 22, 2020; Issue

659 published: September 1, 2020)

660 Rodriguez-Gomez D, Castro D, Meneses J. 2018. Problematic uses of ICT among young people
661 in their personal and school life. *Comunicar* 26(56):91-100 (July 2018). DOI: [10.3916/c56-2018-](https://doi.org/10.3916/c56-2018-09)
662 [09](https://doi.org/10.3916/c56-2018-09)

663 Ruggeri K. 2017. Forward teaching: Recommendations for improving statistical literacy in
664 psychological and behavioural sciences. *PeerJ PrePrints*. DOI: 10.7287/peerj.preprints.3265v1.

665 Salovey P. 2018. We Should Teach All Students, in Every Discipline, to Think Like Scientists.
666 *Scientific American blogs*, June 1, 2018. Available at: [https://www.scientificamerican.com/article/we-](https://www.scientificamerican.com/article/we-should-teach-all-students-in-every-discipline-to-think-like-scientists/?utm_source=twitter&utm_medium=social&utm_campaign=sa-editorial-social&utm_content=&utm_term=policy_opinion_free&sf191573856=1)
667 [should-teach-all-students-in-every-discipline-to-think-like-scientists/?](https://www.scientificamerican.com/article/we-should-teach-all-students-in-every-discipline-to-think-like-scientists/?utm_source=twitter&utm_medium=social&utm_campaign=sa-editorial-social&utm_content=&utm_term=policy_opinion_free&sf191573856=1)
668 [utm_source=twitter&utm_medium=social&utm_campaign=sa-editorial-](https://www.scientificamerican.com/article/we-should-teach-all-students-in-every-discipline-to-think-like-scientists/?utm_source=twitter&utm_medium=social&utm_campaign=sa-editorial-social&utm_content=&utm_term=policy_opinion_free&sf191573856=1)
669 [social&utm_content=&utm_term=policy_opinion_free&sf191573856=1](https://www.scientificamerican.com/article/we-should-teach-all-students-in-every-discipline-to-think-like-scientists/?utm_source=twitter&utm_medium=social&utm_campaign=sa-editorial-social&utm_content=&utm_term=policy_opinion_free&sf191573856=1)

670 Schutz A. 1974. *La fenomenologia del mondo sociale*. Bologna: Il Mulino [Original edition:
671 1967. *The phenomenology of the social world*. Evanston: Northwestern University Press].

672 Smith, KT. 2010. An examination of marketing techniques that influence Millennials'
673 perceptions of whether a product is environmentally friendly. *Journal of Strategic Marketing*
674 18(6): 437-450. DOI: <https://doi.org/10.1080/0965254X.2010.525249>

675 Spanò A. 2018. *Studiare I giovani nel mondo che cambia. Concetti, temi e prospettive negli Youth*
676 *Studies*. Milano: Franco Angeli.

677 Steinau S. 2013. [*Diagnostic Criteria in Attention Deficit Hyperactivity Disorder - Changes in*](#)
678 [*DSM 5*](#). *Front Psychiatry* Vol. 4 pp. 49, DOI:[10.3389/fpsy.2013.00049](https://doi.org/10.3389/fpsy.2013.00049)

679 Takahiro A & Kato MD. 2019. Hikikomori. Multidimensional understanding, assessment, and
680 future international perspectives. *Psychiatry and clinical neurosciences* 73(8): 427-440 DOI:
681 <https://doi.org/10.1111/pcn.12895>

682 Tosi F. 2018. Caratteristiche e determinanti della condizione Neet in Italia. *Polis: ricerche e studi*
683 *su società e politica in Italia* 32(3): 387-398 DOI: 10.1424/91426

684 Twenge JM, Joiner TE, Rogers ML, Martin GN. 2017. Increases in Depressive Symptoms,
685 Suicide-Related Outcomes, and Suicide Rates Among U.S. Adolescents After 2010 and Links to
686 Increased New Media Screen Time. *Clinical Psychological Science*, 2017; 216770261772337
687 DOI: [10.1177/2167702617723376](https://doi.org/10.1177/2167702617723376)

688 Twenge JM, Park H. 2017. The Decline in Adult Activities Among U.S. Adolescents, 1976–2016.
689 *Child Development*. DOI : 10.1111/cdev.12930

690 UNDP. 2016. *Human Development Report 2016*. Washington, DC: Communications
691 Development Incorporated.
692 http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf (last accessed Dec.
693 7th, 2020).

694 UNESCO. 2017/8. *Accountability in Education: Meeting our Commitments*, Paris: UNESCO
695 Publishing. <https://en.unesco.org/gem-report/report/2017/accountability-education> (last accessed
696 Dec. 7th, 2020).

697 Wadhams P. 2017. *Addio ai ghiacci: rapporto dall'Artico*. Torino, Bollati Boringhieri [Original
698 edition: 2016. *A farewell to ice*. London, Penguin Books Ltd].

699 Weber M. 1958. *Il metodo delle scienze storico-sociali*. Torino: Einaudi [Original edition: 1922.
700 *Gesammelte Aufsätze zur Wissenschaftslehre*].

701 Wieman CE. 2014. Large-scale comparison of science teaching methods sends clear message.

702 *PNAS June 10, 2014* 111 (23) 8319-8320; first published May 22, 2014;

703 <https://doi.org/10.1073/pnas.1407304111>

704 Williams KC, Page R. 2011. Marketing to Generations. *Journal of Behavioral Studies in*
705 *Business* 3(1): 37-53.

706 Wilson EO. 2016. *Metà della Terra: salvare il futuro della vita*. Torino, Codice edizioni [Original
707 edition: 2016. *Half-Earth: our Planet's fight for life*. New York – London, W. W. Norton &
708 Company].

709 World Bank. 2018. *World Development Report 2018: Learning to Realize Education's Promise*.

710 Washington, DC: World Bank. <https://www.worldbank.org/en/publication/wdr2018> (last accessed
711 Dec. 7th, 2020).

712 Zappella M. 2005. *Autismo infantile*. Roma: Carocci.

713

	Male	Female	Totals
Technical High Schools	28	12	40
Classic Studies High Schools	12	59	71
TOTALS	40	71	111

Table 1 – Sample characteristics

Quest. #	Quest text	Questions not-answered – General statistics & Main disaggregation									
		Not-answered – The whole sample		Not-answered – Women		Not-answered – Men		Not-answered – Technical High-schools		Not-answered – Classic High-schools	
		Items	Questions	Items	Questions	Items	Questions	Items	Questions	Items	Questions
1	Please, think to the world you live in: list the first words / phrases which come to your mind?	11	0	10	0	1	0	7	0	4	0
2	An aspect you like of it (your world).	0	0	0	0	0	0	0	0	0	0
3	An aspect you dislike of it.	0	0	0	0	0	0	0	0	0	0
4	Please, can you synthetically tell how you feel inside it?	0	0	0	0	0	0	0	0	0	0
5	When you feel well, who or what does your feeling depend on?	0	0	0	0	0	0	0	0	0	0
6	In your opinion, what is life?	0	0	0	0	0	0	0	0	0	0
7	Vasco Rossi sang: "I wanna find a sense for this life, even though this life has no sense". Can you see a sense in this life? Which one?	0	0	0	0	0	0	0	0	0	0
8	Please, tell briefly about a moment (or some moments) in which you felt yourself alive.	0	2	0	1	0	1	0	1	0	1
9	Would you risk your own life for something or someone? For whom / what?	0	0	0	0	0	0	0	0	0	0
10	Please, think to your School and to the meaning it has for you, then list the first thoughts which come to your mind.	18	0	9	0	9	0	13	0	5	0
11	At your age, it is usual to be asked what will you do "after" or "when you grow up"? Did you ever think to this? How can you imagine yourself "grown up"?	0	0	0	0	0	0	0	0	0	0
12	Now, think to your School in connection with your "after", then list the first thoughts which come to your mind.	49	4	28	2	21	2	32	2	17	2
13	Please, list up to three things you reckon you have got an absolute right to in your life.	22	1	12	1	10	0	20	1	2	0
14	In your opinion, who / what does the actual entitlement of your rights (the concrete possibility you can use them) depend on?	0	3	0	3	0	0	0	2	0	1
15	Please, list up to three things you reckon are an absolute duty in your life.	41	3	32	3	9	0	24	3	17	0
16	By whom / by what do you reckon you have to do your duty?		2	0	2	0	0	0	2	0	0
TOTALS		141	15	91	12	50	3	96	11	45	4
%		4,89%	0,84%	4,93%	1,06%	4,81%	0,47%	9,23%	1,72%	2,44%	0,35%
Mean		1,270	0,135	1,282	0,169	1,250	0,075	2,400	0,275	0,634	0,056
SD		1,968	0,457	2,044	0,534	1,850	0,267	2,649	0,679	1,018	0,232
CV		1,549	3,382	1,595	3,160	1,480	3,557	1,104	2,469	1,605	4,122

Table 2 - Questions not-answered – General statistics & Main disaggregation

Quest. #	Text length of the answers – General statistics & Main disaggregation																													
	All the answers						Women						Men						Technical High-schools						Classic High-schools					
	Answer length (characters)	Mean	SD	CV	Min	Max	Answer length (characters)	Mean	SD	CV	Min	Max	Answer length (characters)	Mean	SD	CV	Min	Max	Answer length (characters)	Mean	SD	CV	Min	Max	Answer length (characters)	Mean	SD	CV	Min	Max
1	6.857	61,775	63,283	1,024	9	429	4.371	61,563	72,398	1,176	9	429	2.486	62,150	43,444	0,699	20	236	2.448	61,200	47,201	0,771	18	236	4.409	62,099	71,075	1,145	9	429
2	10.542	94,973	86,398	0,910	5	448	7.207	101,507	90,867	0,895	8	448	3.335	83,375	77,579	0,930	5	337	2.807	70,175	74,331	1,059	5	337	7.735	108,944	90,014	0,826	7	448
3	13.006	117,171	114,393	0,976	6	589	9.514	134,000	117,161	0,874	8	500	3.492	87,300	104,116	1,193	6	589	3.138	78,450	101,885	1,299	6	589	9.868	138,986	115,933	0,834	8	500
4	13.236	119,243	105,240	0,883	4	537	9.493	133,704	111,035	0,830	4	537	3.743	93,575	89,741	0,959	4	365	2.862	71,550	84,802	1,185	4	365	10.374	146,113	106,609	0,730	7	537
5	14.567	131,234	98,581	0,751	8	478	10.199	143,648	100,778	0,702	8	478	4.368	109,200	91,665	0,839	12	458	3.509	87,725	67,404	0,768	8	255	11.058	155,746	105,114	0,675	15	478
6	18.184	163,820	162,830	0,994	7	1.253	14.185	199,789	190,903	0,956	20	1.253	3.999	99,975	53,231	0,532	7	253	3.492	87,300	48,472	0,555	7	188	14.692	206,930	187,414	0,906	20	1.253
7	18.150	163,514	110,591	0,676	2	524	13.580	191,268	116,352	0,608	2	524	4.570	114,250	79,410	0,695	2	329	3.822	95,550	68,477	0,717	2	277	14.328	201,803	111,715	0,554	2	524
8	19.613	176,694	152,655	0,864	0	996	14.930	210,282	163,375	0,777	0	996	4.683	117,075	110,096	0,940	0	547	4.418	110,450	95,103	0,861	0	415	15.195	214,014	166,314	0,777	0	996
9	14.911	134,333	103,004	0,767	2	454	10.872	153,127	110,729	0,723	2	454	4.039	100,975	78,323	0,776	2	401	3.613	90,325	56,810	0,629	2	282	11.298	159,127	114,649	0,720	2	454
10	17.187	154,838	123,975	0,801	18	650	11.717	165,028	126,859	0,769	22	650	5.470	136,750	118,071	0,863	18	605	4.084	102,100	73,238	0,717	18	272	13.103	184,549	136,672	0,741	22	650
11	19.112	172,180	149,777	0,870	9	1.234	14.078	198,282	164,026	0,827	18	1.234	5.034	125,850	107,429	0,854	9	459	3.782	94,550	63,031	0,667	9	284	15.330	215,915	166,298	0,770	10	1.234
12	13.214	119,045	107,921	0,907	0	603	9.018	127,014	102,086	0,804	0	418	4.196	104,900	117,575	1,121	0	603	2.602	65,050	54,652	0,840	0	270	10.612	149,465	118,463	0,793	0	603
13	7.224	65,081	56,053	0,861	0	332	4.455	62,746	49,165	0,784	0	253	2.769	69,225	67,052	0,969	10	332	2.520	63,000	61,936	0,983	0	332	4.704	66,254	52,880	0,798	19	253
14	13.260	119,459	99,145	0,830	0	474	9.427	132,775	101,917	0,768	0	474	3.833	95,825	90,475	0,944	8	380	2.459	61,475	53,174	0,865	0	235	10.801	152,127	104,248	0,685	0	474
15	7.465	67,252	47,047	0,700	0	256	4.897	68,972	49,288	0,715	0	256	2.568	64,200	43,218	0,673	18	160	2.275	56,875	45,634	0,802	0	177	5.190	73,099	47,136	0,645	9	256
16	10.752	96,865	83,185	0,859	0	335	7.133	100,465	78,780	0,784	0	327	3.619	90,475	91,170	1,008	4	335	2.174	54,350	45,815	0,843	0	189	8.578	120,817	89,942	0,744	13	335
Totals (statistic indexes calculated on whole questionnaires)	217.280	1.957,477	1.114,846	0.570	0	1.253	155.076	2.184,169	1.147,198	0,525	0	1.253	62.204	1.555,100	940,098	0,605	0	605	50.005	1.250,125	653,868	0,523	0	589	167.275	2.355,986	1.126,014	0,478	0	1.253

Table 3 - Text length of the answers – General statistics & Main disaggregation

Key words	Freq.	%
Violence	13	0,06%
War	11	0,05%
Consumerism	10	0,05%
Terrorism	10	0,05%
Race / Racism	8	0,04%
Conflict	6	0,03%
Crisis	6	0,03%
Bullyism	5	0,02%
Democracy	5	0,02%
Globalization	5	0,02%
Corruption	4	0,02%
Careers	3	0,01%
Modernization	3	0,01%
Capitalism	2	0,01%
Hunger	2	0,01%
Attacks	1	0,00%
Unemployment	1	0,00%
"Femminicidi" (women killing)	1	0,00%
Industry / Industrialization	1	0,00%
Employment	0	0,00%
Indignation	0	0,00%
Innovation	0	0,00%
Liberismo / Neo-liberism	0	0,00%
All answers total words	20.408	0,48%

Table 4 – Rare words

Key words	Freq.	%
Job / Work	30	0,15%
Working / Labour	15	0,07%
Man (also as "Humanity")	13	0,06%
Woman / Women	6	0,03%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
//	0	0,00%
All answers total words	20.408	0,31%

Table 5 – Special words

Block	Data (General)	Social Dim.		Spatial Horizon		Time Horizon			Responsibility		Concreteness	
		Closed	Open	Near	Far	Past	Present	Future	Active	Passive	Concr.	Fant.
World	Score	271	324	279	362	12	595	46	60	516	161	309
	% Distribution of scores	45,5%	54,5%	43,5%	56,5%	1,8%	91,2%	7,0%	10,3%	89,7%	34,3%	65,7%
Life	Score	301	127	386	38	26	354	49	126	281	41	268
	% Distribution of scores	70,4%	29,6%	91,1%	8,9%	6,0%	82,7%	11,3%	31,0%	69,0%	13,1%	86,9%
School	Score	594	83	630	47	4	246	68	79	594	74	602
	% Distribution of scores	87,7%	12,3%	93,1%	6,9%	1,1%	77,6%	21,3%	11,7%	88,3%	10,9%	89,1%
Rights & Duties	Score	517	289	712	95	10	749	48	223	580	124	679
	% Distribution of scores	64,1%	35,9%	88,3%	11,7%	1,2%	92,9%	5,9%	27,7%	72,3%	15,4%	84,6%
Totals	Score	1.682	822	2.006	541	50	1.943	210	487	1.970	399	1.857
	% Distribution of scores	67,2%	32,8%	78,8%	21,2%	2,3%	88,2%	9,5%	19,8%	80,2%	17,7%	82,3%

% Distribution ALL	32,8%	21,2%	11,8%	19,8%	17,7%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution WORLD	54,5%	56,5%	8,8%	10,3%	34,3%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution LIFE	29,6%	8,9%	17,3%	31,0%	13,1%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution SCHOOL	12,3%	6,9%	22,4%	11,7%	10,9%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution RIGHTS & DUTIES	35,9%	11,7%	7,1%	27,7%	15,4%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

Figure 1 – Percent distribution / General

Block	Data (Women)	Social Dim.		Spatial Horizon		Time Horizon			Responsibility		Concreteness	
		Closed	Open	Near	Far	Past	Present	Future	Active	Passive	Concr.	Fant.
World	Score	163	218	171	241	9	386	27	42	327	111	191
	% Distribution of scores	42,8%	57,2%	41,5%	58,5%	2,0%	91,7%	6,3%	11,3%	88,7%	36,8%	63,2%
Life	Score	193	82	249	24	19	226	31	82	181	28	171
	% Distribution of scores	70,2%	29,8%	91,2%	8,8%	6,7%	82,2%	11,1%	31,1%	68,9%	13,9%	86,1%
School	Score	392	56	420	27	3	157	44	64	380	44	404
	% Distribution of scores	87,6%	12,4%	94,0%	6,0%	1,2%	77,3%	21,5%	14,4%	85,6%	9,8%	90,2%
Rights & Duties	Score	313	199	444	68	5	480	28	151	359	81	428
	% Distribution of scores	61,2%	38,8%	86,7%	13,3%	1,0%	93,7%	5,4%	29,6%	70,4%	15,8%	84,2%
Totals	Score	1.060	554	1.283	360	35	1.248	128	338	1.246	263	1.194
	% Distribution of scores	65,7%	34,3%	78,1%	21,9%	2,4%	88,5%	9,1%	21,3%	78,7%	18,1%	81,9%

% Distribution ALL	34,3%	21,9%	11,5%	21,3%	18,1%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution WORLD	57,2%	58,5%	8,3%	11,3%	36,8%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution LIFE	29,8%	8,8%	17,8%	31,1%	13,9%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution SCHOOL	12,4%	6,0%	22,7%	14,4%	9,8%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution RIGHTS & DUTIES	38,8%	13,3%	6,3%	29,6%	15,8%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

Figure 2 – Percent distribution / Women

Block	Data (Men)	Social Dim.		Spatial Horizon		Time Horizon			Responsibility		Concreteness	
		Closed	Open	Near	Far	Past	Present	Future	Active	Passive	Concr.	Fant.
World	Score	108	106	108	121	3	210	20	18	189	50	118
	% Distribution of scores	50,4%	49,6%	47,2%	52,8%	1,3%	90,3%	8,4%	8,7%	91,3%	29,9%	70,1%
Life	Score	108	45	137	14	7	128	18	45	101	13	98
	% Distribution of scores	70,8%	29,2%	91,0%	9,0%	4,6%	83,6%	11,8%	30,7%	69,3%	11,8%	88,2%
School	Score	202	28	210	20	1	89	24	15	214	30	198
	% Distribution of scores	88,0%	12,0%	91,5%	8,5%	0,9%	78,1%	21,1%	6,4%	93,6%	13,2%	86,8%
Rights & Duties	Score	205	91	268	27	5	269	20	72	221	43	251
	% Distribution of scores	69,3%	30,7%	91,0%	9,0%	1,5%	91,7%	6,8%	24,6%	75,4%	14,7%	85,3%
Totals	Score	622	269	723	181	16	695	82	149	724	136	664
	% Distribution of scores	69,8%	30,2%	80,0%	20,0%	2,0%	87,8%	10,3%	17,1%	82,9%	17,0%	83,0%

% Distribution ALL	30,2%	20,0%	12,2%	17,1%	17,0%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution WORLD	49,6%	52,8%	9,7%	8,7%	29,9%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution LIFE	29,2%	9,0%	16,4%	30,7%	11,8%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution SCHOOL	12,0%	8,5%	21,9%	6,4%	13,2%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution RIGHTS & DUTIES	30,7%	9,0%	8,3%	24,6%	14,7%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

Figure 3 – Percent distribution / Men

Block	Data (Technical High Schools)	Social Dim.		Spatial Horizon		Time Horizon			Responsibility		Concreteness	
		Closed	Open	Near	Far	Past	Present	Future	Active	Passive	Concr.	Fant.
World	Score	121	89	118	109	6	205	20	13	198	46	124
	% Distribution of scores	57,6%	42,4%	52,0%	48,0%	2,4%	89,1%	8,5%	6,2%	93,8%	27,1%	72,9%
Life	Score	112	37	137	11	9	123	18	40	103	13	95
	% Distribution of scores	75,2%	24,8%	92,9%	7,1%	5,7%	82,6%	11,7%	27,8%	72,2%	11,6%	88,4%
School	Score	190	23	198	15	1	86	24	11	201	29	184
	% Distribution of scores	89,4%	10,6%	93,2%	6,8%	0,9%	77,4%	21,7%	5,2%	94,8%	13,6%	86,4%
Rights & Duties	Score	187	78	244	21	5	243	16	61	203	39	226
	% Distribution of scores	70,7%	29,3%	92,1%	7,9%	1,9%	92,0%	6,1%	23,1%	76,9%	14,6%	85,4%
Totals	Score	610	226	696	155	20	656	77	125	704	126	628
	% Distribution of scores	73,0%	27,0%	81,8%	18,2%	2,7%	87,1%	10,2%	15,0%	85,0%	16,7%	83,3%

% Distribution ALL	27,0%	18,2%	12,9%	15,0%	16,7%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution WORLD	42,4%	48,0%	10,9%	6,2%	27,1%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution LIFE	24,8%	7,1%	17,4%	27,8%	11,6%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution SCHOOL	10,6%	6,8%	22,6%	5,2%	13,6%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

% Distribution RIGHTS & DUTIES	29,3%	7,9%	8,0%	23,1%	14,6%
Categories	Soc. Dim.	Spat. Hor.	Time Hor.	Responsibility	Concreteness

Figure 4 – Percent distribution / Technical High Schools

Block	Data (Classic High School)	Social Dim.		Spatial Horizon		Time Horizon			Responsibility		Concreteness	
		Closed	Open	Near	Far	Past	Present	Future	Active	Passive	Concr.	Fant.
World	Score	150	235	162	254	6	390	27	47	318	115	185
	% Distribution of scores	38,9%	61,1%	38,9%	61,1%	1,4%	92,3%	6,3%	12,8%	87,2%	38,4%	61,6%
Life	Score	189	90	249	27	17	231	31	87	179	28	173
	% Distribution of scores	67,9%	32,1%	90,2%	9,8%	6,1%	82,8%	11,1%	32,6%	67,4%	13,9%	86,1%
School	Score	404	61	432	32	3	160	44	68	393	45	419
	% Distribution of scores	87,0%	13,0%	93,1%	6,9%	1,2%	77,7%	21,1%	14,7%	85,3%	9,7%	90,3%
Rights & Duties	Score	330	212	468	74	5	506	32	162	377	85	453
	% Distribution of scores	60,9%	39,1%	86,4%	13,6%	0,8%	93,4%	5,8%	30,0%	70,0%	15,8%	84,2%
Totals	Score	1.072	596	1.310	386	30	1.287	133	362	1.266	273	1.229
	% Distribution of scores	64,3%	35,7%	77,2%	22,8%	2,1%	88,8%	9,1%	22,2%	77,8%	18,2%	81,8%

% Distribution ALL	35,7%	22,8%	11,2%	22,2%	18,2%
Categories	Dim. Soc.	Oriz. Spaz.	Oriz. Temp.	Responsab.	Realismo

% Distribution WORLD	61,1%	61,1%	7,7%	12,8%	38,4%
Categories	Dim. Soc.	Oriz. Spaz.	Oriz. Temp.	Responsab.	Realismo

% Distribution LIFE	32,1%	9,8%	17,2%	32,6%	13,9%
Categories	Dim. Soc.	Oriz. Spaz.	Oriz. Temp.	Responsab.	Realismo

% Distribution SCHOOL	13,0%	6,9%	22,3%	14,7%	9,7%
Categories	Dim. Soc.	Oriz. Spaz.	Oriz. Temp.	Responsab.	Realismo

% Distribution RIGHTS & DUTIES	39,1%	13,6%	6,6%	30,0%	15,8%
Categories	Dim. Soc.	Oriz. Spaz.	Oriz. Temp.	Responsab.	Realismo

Figure 5 – Percent distribution / Classic High Schools

- 1 1 Not in Education, Employment, or Training. The acronym has been used for the first time in a 1999 report of the
2 British Government's "Social Exclusion Unit".
- 3 2 Hikikomori is a voluntary self-isolation associated with a total withdrawal from social life.
- 4 3 Italian education system starts at 6 years old and is based on 5 years of Elementary school, 3 years of Middle school
5 and 5 years of High school; the age range of the regular study course spans from age 6 to age 19 years. High schools
6 are divided into several curricula, the main of which are the technical ("Technical Institutes") and classic ones
7 ("Lyceums", classic = literary or scientific).
- 8 4 We assessed the minimum value excluding "0" (not-answered) and "2" (strictly SI/NO = Yes/No answer) values.