

NATIONAL UNIVERSITY OF IRELAND, GALWAY

Moving forward in the measurement of sexual health behaviour among post-primary school students in Ireland

Testing new questionnaire items

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INTRODUCTION

This document reports on the development and testing of new questionnaire items for use in the Health Behaviour in School-aged Children (HBSC) Study on sexual health. Part 1 describes the cross sectional pilot testing of potential new items. Part 2 describes the test-retest pilot of potential new items. Appendix 1 contains the general comments received from participants in the pilot process about the questions. Appendix 2 contains a summary of the performance of the international mandatory HBSC sexual health items among the participants in Ireland.

This stage of the study process was informed by research carried out by members of the Sexual Health Focus Group of the international HBSC network. A comprehensive protocol was generated detailing the rationale for the proposed question items as well reasons for changing existing question formats. The theoretical framework of the protocol incorporated both the biopsychosocial model of health (Engel, 1977, 1980) and the lifespan approach. The biopsychosocial model has previously been applied to adolescent sexual health and behaviour as well as contraceptive use (Santelli, 1992). The protocol recommended changes to the formatting of the mandatory sexual behaviour items and optional packages on romantic relationships and first sexual intercourse were compiled. A skip pattern was introduced to the mandatory sexual behaviour items in order to simplify coding, to reduce inconsistencies across items, to increase comparability between paper-and-pencil surveys and computer-assisted surveys and to redirect respondents who have never had sex (Godeau *et al.*, 2013). The Romantic Relationships optional package was created as romantic experiences were identified as having a significant impact on mental health, development and future romantic relationships (Költő *et al.*, 2013). The First Sexual Intercourse optional package was designed in order to explore other dimensions that surround first sexual intercourse other than age of initiation (Moreau *et al.*, 2013). The protocol proposed all new questionnaire items be subjected to a pilot testing and test re-test reliability studies. The process also included a thorough review and quality critique of existing sexual behaviour measures. For further information on the HBSC protocol and for details on the optional packages see the HBSC International website (www.hbsc.org)

PART 1: Cross-sectional Pilot study of Sexual Health Questions

Aim:

To provide guidance on the utility and appropriateness of the new mandatory and optional sexual health items.

Objectives:

1. To provide clear guidance on the following dimensions of all proposed items: acceptability (including in different cultures), understandability, answerability, skew, translatability, relevance (to potential participants, to gatekeepers?).
2. To provide information on the contextual understanding of potential participants of the proposed items.

Context of data collection:

Ireland (n=233)

Pilot study data were collected from five schools. A predominantly Catholic mixed voluntary school (n=33), a Catholic boys' school (n=117), a Convent girls' school (n=34), a Catholic girls' school (n=34) and a mixed vocational school aimed at promoting the educational needs of children and young people from disadvantaged communities (n=15). Two/three researchers were present during data collection: 1 or 2 researcher(s) to conduct the discussion and 1 to take notes. Students were introduced to the HBSC study, the objectives of the pilot, individual data collection and collective discussion about each item, the overall topics and their appropriateness for other adolescents. In addition to sexual health items, questions on bullying and substance use were included.

Analysis:

Data analysis has been targeted at meeting the objectives outlined. The findings are presented using summary tables, together with detailed student feedback. There are three sections contained below, on romantic experiences, last sexual intercourse and first sexual intercourse. In each section summary tables of the responses received are provided along with the detailed student feedback received.

Summary tables: These tables present key information by questionnaire item (p1-21). Measures reported include mean, standard deviation, median, missing values and skew. Comments relating to participants' understanding of the questions (words underlined or identified as not understood) have been reported. In addition, students' comments have been reported relating to problems or concerns about the acceptability of the item, the relevance of the content, the overlap or similarity between questions, their ease of answering and any issues relating to the translation of the items.

Detailed student feedback: Appendix 1 contains participants' general comments (verbatim quotes) relating to the sexual health items presented in the questionnaire.

SECTION 1: ROMANTIC RELATIONSHIPS

P1: Have you ever been in love with someone?

Country	Ireland % (n)		
	Boys	Girls	All
Yes, with a girl or girls (1)	64.1 (93)	0	40.3 (93)
Yes, with a boy or boys (2)	1.4 (2)	46.5 (40)	18.2 (42)
Yes, with either girls or boys (3)	2.1 (3)	0	1.3 (3)
No, never (4)	32.4 (47)	53.5 (46)	40.3 (93)
Missing	1	1	2
Skew (response ratio)	68:32	46:54	60:40

**Responses considered skewed based on 90:10 cut-off*

P1 Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	'We don't know what love is' 'maybe need to think about what love is sometimes maybe just a crush - how do you know if it was love?'
Acceptable	'quite blunt'
Overlap	0
Ease of answering	'not really a clear question'
Relevance	'Don't use the word love' 'I would put question 10 before 8'. 'Love is too strong a word' 'not a great question'

	<p>'Not really the right word to use'</p> <p>'Should include inanimate object'.</p> <p>'Possibly include another one with like or crush or lust.'</p> <p>'too general' "'in love" is not the same for every person'</p> <p>'YOu could ask if you've been with someone because most people don't go out seriously anymore it's just really flings!'</p> <p>love is a bit strong... teenagers like...</p> <p>Love is a strong word. You should just ask are you gay, Bi or lesbian or attracted to men and/or women</p>
Translation	0

P2: Are you in love with someone right now?

Country	Ireland % (n)		
	Boys	Girls	All
Yes (1)	31.3 (45)	21.8 (19)	27.7 (64)
No (2)	68.8 (99)	78.2 (68)	72.3 (167)
Missing	2	0	2
Skew (response ratio)	31:69	22:78	28:72

**Responses considered skewed based on 90:10 cut-off.*

P2 Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	0
Ease of answering	'Confusing because I don't really know what love is. If you put "attracted to" or "like" someone, it would be different.'
Relevance	'A crush, maybe' 'attracted: yes (tick) love:no' 'Love is also a very strong word'. 'maybe if you put 'like/have a crush on' instead of 'in love', because a lot more people would only like someone than actually love someone. Or maybe both. 'Sorta? I've had bad experiences so I don't really know. I love isn't real
Translation	0

P3: Have you ever been going out with someone?

Country	Ireland % (n)		
	Boys	Girls	All
Yes, with a girl or girls (1)	69.7 (101)	0	43.5 (101)
Yes, with a boy or boys (2)	0.7 (1)	56.3 (49)	21.6 (50)
Yes, with either girls or boys (3)	1.4 (2)	1.1 (1)	1.3 (3)
No, never (4)	28.3 (41)	42.5 (37)	33.6 (78)
Missing	1	0	1
Skew (response ratio)	71:29	57:43	66:34

**Responses considered skewed based on 90:10 cut-off.*

P3: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	'I don't understand why its boys, I was confused between that' 'I was confused because these days you can be 'with' someone yet not dating them or going out.
Acceptable	'too baby ish?'
Overlap	0
Ease of answering	0
Relevance	'Been "with" someone - different story' 'gone out instead of going out' 'Not really anything to do with sexuality' 'You can be with them'
Translation	0

P4: Are you going out with someone right now?

Country	Ireland % (n)		
	Boys	Girls	All
Yes (1)	19.3 (28)	14.9 (13)	17.7 (41)
No (2)	80.7 (117)	85.1 (74)	82.3 (191)
Missing	1	0	1
Skew (response ratio)	19:81	15:85	18:82

**Responses considered skewed based on 90:10 cut-off.*

P4: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	0
Ease of answering	0
Relevance	0
Translation	0

SECTION 2: LAST SEXUAL INTERCOURSE

P5: Have you ever had sexual intercourse (sometimes called ‘making love’, ‘having sex’, or ‘going all the way’)?

Country	Ireland % (n)		
	Boys	Girls	All
Gender			
Yes (1)	24.5 (35)	9.3 (8)	18.8 (43)
No (2)	75.5 (108)	90.7 (78)	81.2 (186)
Missing	3	1	4
Skew (response ratio)	24:76	9:91*	19:81

**Responses considered skewed based on 90:10 cut-off.*

P5: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	'I liked how it tells us what question to skip to and it was very clear.'
Acceptable	'no one says "going all the way"
Overlap	'Very personal'
Ease of answering	0
Relevance	'Question 12 could be more straight forward and to the point.'
Translation	0

P6: The last time you had sexual intercourse, did you or your partner use a condom?

Country	Ireland % (n)		
	Boys	Girls	All
Yes, we used a condom (1)	65.8 (25)	66.7 (6)	66.0 (31)
No, we did not use a condom (2)	26.3 (10)	22.2 (2)	25.5 (12)
I don't know (3)	7.9 (3)	11.1 (1)	8.5 (4)
Missing	108	78	186

P6: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	0
Ease of answering	0
Relevance	0
Translation	0

P7: The last time you had sexual intercourse, did you or your partner use birth control pills?

Country	Ireland % (n)		
	Boys	Girls	All
Yes, we used birth control pills (1)	16.2 (6)	22.2 (2)	17.4 (8)
No, we did not use birth control pills (2)	48.6 (18)	66.7 (6)	52.2 (24)
I don't know (3)	35.1 (13)	11.1 (1)	30.4 (14)
Missing	109	78	187

P7: Comments on these items in margin, end of questionnaire or during class discussion

Understanding	0
Acceptable	0
Overlap	0
Ease of answering	0
Relevance	0
Translation	0

P9: The last time you had sexual intercourse, did you or your partner use any other method(s) of contraception?

Country	Ireland % (n)		
	Boys	Girls	All
Gender			
Yes, we used another method of contraception (1)	20.0 (7)	0	15.9 (7)
No, we did not use another method of contraception (2)	57.1 (20)	66.7 (6)	59.1 (26)
I don't know (3)	22.9 (8)	33.3 (3)	25.0 (11)
Missing	111	78	189

P9: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	'Asking too many questions about contraception'
Overlap	0
Ease of answering	0
Relevance	0
Translation	0

SECTION 3: FIRST SEXUAL INTERCOURSE

P10: How old were you when you had sexual intercourse for the first time?

Country	Ireland % (n)		
	Boys	Girls	All
11 yrs or younger (1)	8.8 (3)	0	7.1 (3)
12 yrs (2)	5.9 (2)	25.0 (2)	9.5 (4)
13 yrs (3)	11.8 (4)	12.5 (1)	11.9 (5)
14 yrs (4)	17.6 (6)	12.5 (1)	16.7 (7)
15 yrs (5)	35.3 (12)	25.0 (2)	33.3 (14)
16 yrs or older (6)	17.6 (6)	12.5 (1)	16.7 (7)
17 yrs (7)	2.9 (1)	12.5 (1)	4.8 (2)
18 yrs or older (8)	0	0	0
Mean (SD)	4.29(1.567)	4.25(1.832)	4.29(1.597)
Median	5.00	4.50	5.00
Missing	112	79	191

P10: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	0
Ease of answering	0
Relevance	0
Translation	0

P11: How old was your partner when you had sexual intercourse for the first time?

Country	Ireland % (n)		
	Boys	Girls	All
11 yrs or younger(1)	0	0	0
12 yrs (2)	0	22.2 (2)	4.5 (2)
13 yrs (3)	2.9 (1)	11.1 (1)	4.5 (2)
14 yrs (4)	17.1 (6)	0	13.6 (6)
15 yrs (5)	28.6 (10)	33.3 (3)	29.5 (13)
16 yrs or older(6)	31.4 (11)	11.1 (1)	27.3 (12)
17 yrs (7)	5.7 (2)	0	4.5 (2)
18 yrs (8)	0	11.1 (1)	2.3 (1)
19 yrs (9)	2.9 (1)	0	2.3 (1)
20 yrs or older(10)	8.6 (3)	0	6.8 (3)
I do not know (99)	2.9 (1)	11.1 (1)	4.5 (2)
Mean (SD)	5.76(1.742)	4.50(2.070)	5.52(1.851)
Median	5.50	5.00	5.00
Missing	111	78	189

P11: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	0
Ease of answering	0
Relevance	0
Translation	0

P12: How many times have you had sexual intercourse?

Country	Ireland % (n)		
	Boys	Girls	All
Once (1)	25.7 (9)	12.5 (1)	23.3 (10)
Twice or more times (2)	74.3 (26)	87.5 (7)	76.7 (33)
Missing	111	79	190
Skew (response ratio)	26:74	12:88	23:77

**Responses considered skewed based on 90:10 cut-off.*

P12: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	0
Ease of answering	0
Relevance	0
Translation	0

P13: The first time you had sexual intercourse, did you or your partner use a condom?

Country	Ireland % (n)		
	Boys	Girls	All
Yes, we used a condom (1)	71.4 (20)	83.3 (5)	73.5 (25)
No, we did not use a condom (2)	21.4 (6)	16.7	20.6 (7)
I don't know (3)	7.1 (2)	0	5.9 (2)
Missing	118	81	199

P13: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	'Question 19 was already asked, as was question 20.'
Ease of answering	0
Relevance	0
Translation	0

P14: The first time you had sexual intercourse, did you or your partner use birth control pills?

Country	Ireland % (n)		
	Boys	Girls	All
Yes, we used birth control pills (1)	14.3 (4)	0	11.4 (4)
No, we did not use birth control pills (2)	57.1 (16)	100 (7)	65.7 (23)
I don't know (3)	28.6 (8)	0	22.9 (8)
Missing	118	80	198

P14: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	0
Ease of answering	0
Relevance	0
Translation	0

P16: The first time you had sexual intercourse, did you or your partner use any other method(s) of contraception?

Country	Ireland % (n)		
	Boys	Girls	All
Gender			
Yes, we used another method of contraception (1)	7.4 (2)	14.3 (1)	8.8 (3)
No, we did not use another method of contraception (2)	66.7 (18)	71.4 (5)	67.6 (23)
I don't know (3)	25.9 (7)	14.3 (1)	23.5 (8)
Missing	119	80	199

P16: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	'Already asked'
Ease of answering	0
Relevance	0
Translation	0

P17a: When you first had sexual intercourse, would you personally say:

Country	Ireland % (n)		
	Boys	Girls	All
You wanted it to happen earlier (1)	26.5 (9)	12.5 (1)	23.8 (10)
You wanted it to happen at the time (2)	61.8 (21)	50.0 (4)	59.5 (25)
You would rather have had it later (3)	11.8 (4)	37.5 (3)	16.7 (7)
Missing	112	79	191

P17a: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	'Kind of confusing' (line drawn to both q22 & q23)
Acceptable	
Overlap	'But now I wish I had waited' 'Exact same question' (arrows draw to Q22 & 23) 'I felt these questions were all very repetitive and unnecessary. (q21 + q22) Questions seem to repeat for no apparent reason other than offering more options
Ease of answering	
Relevance	'Maybe ask question on how they felt (e.g. if they felt pressured, regretted it etc.)
Translation	

P17b: When you first had sexual intercourse, would you personally say:

Country	Ireland % (n)		
	Boys	Girls	All
You wanted it to happen earlier(1)	21.2 (7)	0	17.1 (7)
You wanted it to happen at the time(2)	51.5 (17)	37.5 (3)	48.8 (20)
You would rather have had it later(3)	9.1 (3)	25.0 (2)	12.2 (5)
You did not really want to have intercourse(4)	6.1 (2)	0	4.9 (2)
You did not ask yourself that question(5)	12.1 (4)	37.5 (3)	17.1 (7)
Mean (SD)	2.36 (1.245)	3.38 (1.408)	2.56 (1.324)
Median	2.00	3.00	2.00
Missing	113	79	192

P17b: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	'Better - more options', 'This one is better'
Overlap	'21 and 22 are the same' 'same question' 'Same questions'
Ease of answering	
Relevance	
Translation	'Better - more options', 'This one is better'

P18: Did you drink alcohol or use drugs before you had sexual intercourse the first time?

Country	Ireland % (n)		
Gender	Boys	Girls	All
Yes (1)	36.1 (13)	42.9 (3)	37.2 (16)
No (2)	52.8 (19)	57.1 (4)	53.5 (23)
I do not remember (3)	11.1 (4)	0	9.3 (4)
Missing	110	80	190

P18: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	0
Ease of answering	'It wasn't technically conventional sex this time. Should be specific me thinks :)'
Relevance	0
Translation	0

P19: At what age do you think most people in (your country) have their first sexual intercourse?

Country Gender	Ireland % (n)		
	Boys	Girls	All
6.0 yrs	0.7 (1)	0	0.4 (1)
10.0 yrs	0.7 (1)	0	0.4 (1)
12.0 yrs	0	0	0
13.0 yrs	0	1.2 (1)	0.4 (1)
14.0 yrs	1.4 (2)	3.6 (3)	2.5 (5)
14.5 yrs	0	2.4 (2)	0.9 (2)
15.0 yrs	7.1 (10)	4.8 (4)	6.3 (14)
15.5 yrs	4.3 (6)	6.0 (5)	4.9 (11)
16.0 yrs	28.6 (40)	15.7 (13)	23.8 (53)
16.5 yrs	7.9 (11)	9.6 (8)	8.5 (19)
17.0 yrs	27.9 (39)	31.3 (26)	29.1 (65)
17.5 yrs	2.1 (3)	7.2 (6)	4.0 (9)
18.0 yrs	12.9 (18)	7.2 (6)	10.8 (24)
18.5 yrs	0.7 (1)	0	0.4 (1)
19.0 yrs	2.1 (3)	4.8 (4)	3.1 (7)
20.0 yrs	2.9 (4)	6.0 (5)	4.0 (9)
21.0 yrs	0.7 (1)	0	0.4 (1)
22.0 yrs	0	0	0
23.0 yrs	0	0	0
Mean(SD)	16.60(1.580)	16.78(1.406)	16.67(1.517)
Median	16.50	17.00	17.00
Missing	6	4	10

P19: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	0
Acceptable	0
Overlap	0
Ease of answering	'Not sure just guessing' '16/17' 'I would only know about the people I know who would tell me, don't think I would have an accurate idea about what the standard is like in other parts of Ireland'. i'd say people are sexually active younger but full intercourse not sure
Relevance	'(but if your in a long relationship with someone you trust, it can differ) 'sexual orentation?' 'Whenever they get a beau' 'Why dose my opion matter?' 'You are never going to get an accurate answer for this'
Translation	0

P20: When you filled in the above questions did you think?

Country	Ireland % (n)		
	Boys	Girls	All
No questions are inappropriate(1)	61.1 (88)	76.5 (65)	66.8 (153)
Some questions are inappropriate(2)	22.9 (33)	10.6 (9)	18.3 (42)
Most questions are inappropriate(3)	10.4 (15)	4.7 (4)	8.3 (19)
All questions are inappropriate(4)	5.6 (8)	8.2 (7)	6.6 (15)
Mean (SD)	1.60 (.887)	1.45 (.919)	1.55 (.900)
Median	1.00	1.00	1.00
Missing	2	2	4

P20: Comments on these items in margin, end of questionnaire or during class discussion

Understanding (Difficult words)	'Question marks are confusing'
Acceptable	0
Overlap	0
Ease of answering	0
Relevance	0
Translation	0

Overall Summary Tables

Sex items (answered/total)	Summary of participant feedback (Understanding, acceptable, overlap, ease of answering, relevance, translation)
p1 (231/233) p2 (231/233)	Some issues the word 'love.' Students felt that the word 'love' may be too strong, and not relevant for young people their age (n=12).
P3 (232/233)	Some issues with the term 'going out.' Students understood the meaning of the phrase, but felt it was potentially too formal or limiting (e.g. it is possible to engage in other relationship behaviours without the relationship being defined as 'going out.' (n=5).
P5 (229/233)	Comments relating to the lack of suitability of the description for sexual intercourse (n=1).
P6 (47/233) P7 (46/233) P9 (44/233)	No specific issues, one comments relating to the number of questions enquiring about contraception use (n=1).
P13 (34/233) P14 (35/233) P16 (34/233)	Possible repetition for those whose first and last sexual intercourse were the same (n=1 Ireland).
P17a,b (42/41/233)	Preference reported for question 17b due to more options (n=3).
P18 (43/233)	No specific issues, term 'sexual intercourse' could exclude other sexual behaviours (n=1 Ireland).
P19 (223/233)	Term 'sexual intercourse' could exclude other sexual behaviours (n=1 Ireland). Difficult to provide an answer for a national population, concerns relating to responses being estimates (n=4).

PART 2: Test re-test evaluation of sexual behaviour questions

Aim:

A test re-test of the sexual behaviour questions was conducted to provide guidance to the international network on the reliability of the new mandatory sexual behaviour items and the two newly introduced Optional Packages.

Objectives:

1. To provide guidance on the test re-test reliability and variability of the new mandatory sexual behaviour items and two optional packages using data collected on the same subjects and under similar working conditions.

Context of data collection:

Ireland (n=63)

Data were collected from three schools. One non-fee paying, mixed community school in the capital city (n=28), and two non-fee paying, mixed schools with a Catholic ethos in more rural areas (n=23 and n=12). One/two researcher(s) were present during data collection. Students were introduced to the HBSC study and the objectives of the test re-test study. Following individual data collection students were encouraged to participate in a collective discussion about the items, the overall topics and their appropriateness for other adolescents. In addition to sexual health items, questions on bullying and substance use were included.

Analysis:

Kappa statistics were calculated for each of the sexual health items. Kappa is most commonly used to measure inter-rater reliability. It is unclear what constitutes an adequate level of kappa for behavioural questions given that behavioural self-report can appropriately change from time 1 to time 2. However as a guideline, values of Kappa from 0.40 to 0.59 are considered moderate, 0.60 to 0.79 substantial, and 0.80 outstanding (Landis & Koch, 1977). Sufficient kappa is recognised as a value of at least 0.6 with a good level of inter-rated agreement at 0.7.

Findings:

The kappa findings for each sexual health item are presented in a summary table below (Table 1.1).

Table 1: Kappa values for sexual health items

Variable	Kappa
1 Have you ever been in love with someone?	0.855
2 Are you in love with someone <u>right now</u> ?	0.691
3 Have you ever been going out with someone?	0.930
4 Are you going out with someone <u>right now</u> ?	0.751
5 Have you ever had sexual intercourse (sometimes called 'making love', 'having sex', or 'going all the way')?	0.832
6 <u>The last time</u> you had sexual intercourse, did you or your partner use a condom?	0.730
7 <u>The last time</u> you had sexual intercourse, did you or your partner use birth control pills?	0.781
8 <u>The last time</u> you had sexual intercourse, did you or your partner use any other method(s) of contraception?	0.451
9 How old were you when you had sexual intercourse for the first time?	0.788
10 How old was your partner when you had sexual intercourse for the first time?	0.676
11 How many times have you had sexual intercourse?	0.444
12 <u>The first time</u> you had sexual intercourse, did you or your partner use a condom?	0.750
13 <u>The first time</u> you had sexual intercourse, did you or your partner use birth control pills?	1.000
14 <u>The first time</u> you had sexual intercourse, did you or your partner use any other method(s) of contraception? Other first	0.455
15 When you first had sexual intercourse, would you personally say (earlier/later)	0.484
16 Did you drink alcohol or use drugs before you had sexual intercourse <u>the first time</u> ?	0.625
17 At what age do you think <u>most people</u> in (your country) have their first sexual intercourse?	0.395

The kappa statistics indicate that 12 out of the 17 items contained a sufficient level of inter-rater reliability (i.e. kappa above 0.6). Items in which participants scored varied from time 1 to time 2 related to the use of 'other contraception' at first and last intercourse, the number of times engaged in sexual intercourse, perception of timing of first sexual intercourse and perception of age of first intercourse. These may reflect low numbers of participants reporting responses (e.g., the reported use of *other* methods of contraception, see Young, Burke & Nic Gabhainn, 2014), the variety of adolescents' responses (e.g., the perceived age of first intercourse) or actual changes in adolescent behaviour from time 1 to time 2 (e.g., number of times engaged in sexual intercourse).

SUMMARY

In order to ensure useful, accurate and appropriate information is collected from young people through the HBSC survey it is vital that all questionnaire items are thoroughly tested for both reliability and validity prior to being added to the questionnaire. The above pilot and test re-test studies provide an effective review of the proposed question changes and additional questions for use in the 2014 HBSC study. They have successfully informed decisions made by the HBSC international network on both mandatory and optional sexual health and behaviour items for use in the upcoming wave of the HBSC study.

Following findings from the pilot and test re-test studies the HBSC international network is to include the new mandatory sexual behaviour questions, which involves the introduction of a skip pattern, into the latest survey instrument. This change was identified as favourable through the testing process as it was clearer, resulted in fewer inconsistent answers and also reduced the number inapplicable questions sexually inactive participants need to answer. The testing process has informed the development and wider use of the Romantic Relationships Optional Package and the First Sexual Intercourse Optional Package. These packages contain questionnaire items which have been deemed both understandable and appropriate for adolescents aged 15 years and older, as well as valuable to the research area of adolescent sexual health and behaviour.

In the context of Ireland the pilot and test re-test studies also aided in the selection of the First Sexual Intercourse Optional Package for inclusion in the national HBSC 2014 questionnaire. As a result of the testing process this package was identified as suitable for use in the Irish survey and also an important instrument for contributing to the knowledge on the sexual health and behaviour of Irish adolescents.

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Appendix 1: The following tables contain participants' general comments about the questionnaire.

Ireland (n=233)

7 - should also ask interested/like girls/boys love is a very strong word. Question: Would you be interested in having sex?

A lot of the questions were asking about very private matters.

All questions make sense, very easy to complete questionnaire, just it gets quite personal. I'm 16 and its talking about sex. I'm aware teens my age do have sex, but none pregnant. In my familym, we treat things serious and we are wise. So I personally haven't but I felt it was fairly pointless. Also, it's mostly weed smoked.

All the questions are fine to ask people our age, except maybe asking do they live with their parents.

love it should be 'like' or 'attracted to'

Easily understood and in no way did they feel inappropriate.

Easily understood and straightforward.

Easy to understand + fun to answer.

Extremely personal May upset some people

No mention of fighting which is a lot more common the people fucking having sex and causes a lot of problems. Good questionnaire v. well phrased v. comprehensible.

good survey

I did understand all questions

I didn't really like anything about them. Sorry.

I don't think it is right to ask about sex and what age you should have it at.

I feel that some of the questions were quite invasive and too personal. The questions themselves were very clear and easy to read. The questions about sexuality were quite detailed and unnecessary.

I feel that the fact of this survey being anonymous leads to more truthful answers.

I feel that these questions are very well put and are very important in finding out about the youth of today. They weren't inappropriate in any way as not only are people our age very familiar with things such as sex and drugs but they are also completely optional.

I feel these questions are a little bit too personal even if it is anonymous. But I think it is a good questionnaire and well explained and the questions are easy to understand. Little too detailed. love too strong!!!

I felt some of the questions were really upfront and almost put you off answering or made you answer in a particular way (those on sexuality and relationships).

I felt some questions were inappropriate. I felt some questions were very personal and some individuals may not have been comfortable answering such questions.

I felt that all the questions asked to me were ok and had no problem answering them.

I felt these questions were fair and asked in a good way.

I found it good. More social questions if you want to find out about young people. You should probably ask about youth discos and stuff because thats the social hub of teenage adventure.

I found the "now skip to question ..." a bit confusing. The questions are okay.

I like all the options, it's well made out and very clear and from the questions I answered it is appropriate.

I liked that the survey was anonymous. I think the sex questions would be inappropriate for third years because that was something I didn't think of last year and it might make younger girls worried or feel pressured for their age group.

I only answered a few questions because most of them where not about me.

I think it is good that you have handed out this survey as hopefully it will help teenagers be more aware of the consequences their actions have.

I think it is no harm to ask those questions because it is totally anonymous and it highlights the different aspects of teenage life and the problems which their actions may have on their overall wellbeing. It was a very personal questionnaire but it seemed very thorough. I think the findings will be astonishing will be a huge eye opener.

I think many people my age relate to most questions and that they are okay to ask.

I think some of the relationships and sexuality questions are innapropriate some of them are personal and should not have been asked other than that the rest of the questions are ok.

I think the questionnaire was very good and suitable for our age group. I understood all questions, they were very clear.

I think the questions are fine it was easy to do.

I think the questions are good but the question for being in love is a bit strong for kids our age, it would be more suitable for questions like if we like somebody

I think the questions are ok for people my age

I think the questions are to confusing and narrow as stands and I think they be more straight forward and broad to remedy this. I think the questions were quite appropriate for people our age. I understood all the questions.

I think these questions are good to ask young people. There is nothing in here that would make them feel awkward, except maybe the sex questions but that's just kind of a funny concept. The survey is good (smiley face drawn). Actually maybe at question 33, people might be unwilling to answer honestly. Maybe remind them the survey is anonymous at this point, or at random times in the survey.

I think these questions are very relevant in Ireland today.

I think this questionnaire was good because it made you think about your life. Thank you.

I think this survey is fine

I think, overall, it was very easy to understand and is a good way to help people speak up about their problems.

I though the questions made me a better person and helped me open myself up to the world. I feel enlightened and ready to take on the world. These questions were appropriate for people of my age.

I thought that most of the questions were genarally well-phrased, I didn't have any problems with the way they were asked.

I thought the questions are suitable for are age.

I thought the questions were good. I enjoyed the survey.

I thought the questions were very appropriate for people my age as they addressed most of the main topics of our lives. The questions were easy to understand and I liked that there were a lot of options after each question & I think you covered every aspect of each topic and nothing was missing.'

I understood all the questions

I understood the questions, I feel they are okay to ask from young people our age. Number of my questions are different to other questionnaires.

I understood the questions.

I understood all of the questions and I don't think they are innapropriate.

I understood all of the questions very well, and I think that most people my age would too. I enjoyed the questions because I know why they are being asked and I know some people that can relate to them - really good survey!

I understood all of them, and they were ok to ask to young people

I understood all questions

I understood all the questions and I feel it is important for young people to see these questions so they can become aware of what they are doing. Also as it is anonymous they will feel safer to express themselves.

I understood all the questions and they were all relevant

I understood all the questions asked not many would have had sex by 16

I understood all the questions asked. They were clear and easy to follow.

I understood all the questions, some were very easy to answer but for other questions I had to think a bit more. Some of the questions about sex were a bit too much + I think some people would feel uncomfortable answering them.

I understood and liked the questions.

I understood the questions and I believe they are appropriate.

I understood the questions and I feel they are okay to ask young people my age.

I understood the questions and I thought they were laid out well, I thought they were age-appropriate

I understood the questions and yes they are okay to ask young people.

I understood the questions.

I understood them grand and they are fine for young People my age.

I understood them. Yes I feel its okay to ask from young people our age.

It is fine and I think that the questions are aproprate for people your age.

It was a good survey :)

It was easy and understandable, was related to people my age's life.

It was good because it keeps people aware about young people.

Like totally amazeballs. OMG!!??!!

Most people haven't had sex yet. Ye should focus on drink.(underlined) Also give out free condoms in Schools. Also you should reconsider persuing a new course.

Q21 + 22 are the same (p17a &p17b)

Should include more about boy-girl friendships.

some of the language used like "going all the way" is a bit of a cringe for adults to use

Some of the questions were ridiculus

Some people are not going to say if they did some of the things mentioned.

Some people might not be honest about smoking drinking drug sex etc. Its worded okay and its a really good questionnaire

Some questions were confusing. Some were irrelevant

Some seem baby-ish ("making love") etc. Sometimes a bit confusing to follow.

The questionnaire is very suitable for the age bracket of 4th year. I believe that at the age people are being offered things and are becoming a bit more adventurous on a night out etc. I didn't feel uncomfortable with any questions and I don't see anything wrong with them.

The questionnaire was good and the questions were easy to understand.

The questions are ok.

The questions relating to sex should be altered so they could be explained fully

The questions were easy to understand and easy to answer.

The questions were easy to understand and I like how we got options to tick.

The questions were easy to understand and they were relevant to children my age.

The questions were fine but sometimes if I ticked no, the following question seemed to only relate if I ticked yes this was a bit confusing.

The questions were okay.

The questions were understandable

There was nothing I liked in particular. I understood all the questions easily.

These questions are easy to understand and the question are quite appropriate

these questions are fine but I think you should do the survey in seperated seats because some people might be embarrassed to tick a box that they were bullied or being bullied - personal life. They might think the person next to them is looking in.

These questions were easy to understand and made me think about my own life and put it more into perspective. maybe you could ask more questions on friendships/relationships to so with young people.

These questions were perfect to present to teenagers. They tackle all important issues in a teenagers life and they were really well laid out and clear.

These questions, I believe, are appropriate for people my age and these are question that need to be asked.

These things all occur in our lives and are appropriate to ask.

They are good questions and a good way to not have to take part in school.

They are good to ask from young people my age

They are okay.

They are realistic questions to ask in this day and age. It was well presented and easy to understand.

They suit the topic of a young persons life today perfectly and touch on some of the most common topics today, sex, drink/drugs and Bullying.

They were a bit invasive but there was definitely a variety of questions.'

They were easy to answer. Welcome! (smiley faces drawn)

They were grand

they were really interesting and funny i enjoyed doing them

They're are okay questions as long as it's anonymous.

This is a good way of finding out the behaviour of young people within schools.

This is a very good survey. I would highly recommend other people to take it.

This is stupid

This survey was very basic and not as detailed as would be liked.

Very clear + concise throughout

We're 16, I don't think any 16 year old really falls in love. Also many 16 year olds would lie when asked if they're sexually active.

Relate to youth to a better extent and try to understand their mind. They may connect to is better + it would make it more entertaining, ise more relevant terming to relate to youth.

Ya there fine I suppose.

Ya, very personal.

Yeah they're fine to ask in questionnaires, I'd say most 16 year olds would like to have sex but haven't has sex, I'd say many 16 year olds have had girlfriends or are have one right now and I would say a lot of 15-16-17 year olds somke and/or drink.

Yes I thought that they were clear and okay to ask. Some (a lot) don't apply to me but I know that they do apply to a lot of people my age

yes I understood all of the questions - they were clear and direct. I think these questions are okay to ask young people my age.

Yes I understood it Thaaanksx

Yes I understood the questionnaire. I found non of the questions inapropriate. I don't really know maybe the questions about sex and drugs might be a bit personal but I don't know cause I've never been in these situations.

Yes I understood the questions

Yes I understood the questions + thought they were relevant. I would like to know the statistics though from the survey

Yes I understood the questions and I think they are good questions which are relative to my age group.

Yes I understood the questions and thought of it as a good idea.

Yes I understood all the questions and I think there are appropriate.

Yes they are ok to ask and not to personall, should ask more about emotions.

Yes they are okay

Yes, I understood the questions fine. These questions are more than okay to ask people my age as everybody can relate to at least 1 question asked in the survey.

Yes, they are perfectly understandable.

yes. I understood all of the questions some of the ones about 'sexual intercourse' were a bit inappropriate, even though they didn't apply me.

You need to ask more about like injections for conteception. You need to ask about medicine or inhalers I think.

Appendix 2: Summary of pilot data on HBSC 2014 Mandatory Sexual Health Items

M47-54: The last time you had sexual intercourse, what method(s) did you or your partner use to prevent pregnancy? Tick all that apply.

Country	Ireland % (n)		
	Boys	Girls	All
I have never had sexual intercourse	73.8 (96)	89.9 (71)	79.9 (167)
Mean (SD)	1.26 (.441)	1.10 (.304)	1.20 (.402)
Median	1.00	1.00	1.00
Missing	16	8	24
Skew	1.098	2.695	1.503
No method was used to prevent pregnancy	30.3 (10)	37.5 (3)	31.7 (13)
Mean (SD)	1.70 (.467)	1.63 (.518)	1.68 (.471)
Median	2.00	2.00	2.00
Missing	113	79	192
Skew	-0.899	-0.644	-0.816
Birth control pill	36.4 (4)	66.7 (2)	42.9 (6)
Mean (SD)	1.64 (.505)	1.33 (.577)	1.57 (.514)
Median	2.00	1.00	2.00
Missing	135	84	219
Skew	-0.661	1.732	-0.325
Condoms	89.3 (25)	80.0 (4)	87.9 (29)
Mean (SD)	1.11 (.315)	1.20 (.447)	1.12 (.331)
Median	1.00	1.00	1.00

Missing	118	82	200
Skew	2.686	2.236	2.433
Withdrawal	54.5 (6)	0	50.0 (6)
Mean (SD)	1.45 (.522)	0	1.50 (.522)
Median	1.00	0	1.50
Missing	135	0	221
Skew	0.213	0	0.000
Some other method	11.1 (1)	50.0 (1)	18.2 (2)
Mean (SD)	1.89 (.333)	1.50 (.707)	1.82 (.405)
Median	2.00	1.50	2.00
Missing	137	85	222
Skew	-3.000	0.000	-1.923