

**DIRECTORATE FOR EDUCATION
INSTITUTIONAL MANAGEMENT IN HIGHER EDUCATION GOVERNING BOARD**

Group of National Experts on the AHELO Feasibility Study

SECURING STUDENTS' RESPONSE RATES

Paris, 17-18 December 2008

The AHELO Group of National Experts is invited to COMMENT on and TAKE NOTE of these options, for consideration in their national context.

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JT03257309



SECURING STUDENTS' RESPONSE RATES

1. The purpose of this paper is to describe the importance of securing students response rates in the OECD Feasibility Study for the international Assessment of Higher Education Learning Outcomes (AHELO) and to describe several options taken in previous surveys to increase response rates. The paper does not aim at discussing actual levels of response rates' thresholds, but rather to spur initial reflections on possible strategies at national or institutional level to increase the likelihood of response by students.
2. The AHELO Group of National Experts is invited to COMMENT on and TAKE NOTE of these options, for consideration in their national context.

Importance of securing students response rate

3. The AHELO feasibility study has two aims: one is to test the science of the assessment and the other is to test the practicality of implementation and of motivating higher education institutions (HEIs) and students to participate [see EDU(2008)7 and EDU/IMHE/GB(2008)7].
4. In this respect, it is critical for the AHELO Feasibility Study to secure students response rates for two reasons. First, like all other surveys, low response rates can be a source of biases, *i.e.* there is a possibility that the samples do not accurately represent the target population. Second, the level of response rates will constitute a test of the practicality of motivating students to participate, which is one of the goals of the AHELO Feasibility Study.

Possibility of non-response biases

5. Whenever there is any non-response to a survey, there is a possibility that biases may exist in the survey results. Non-response bias would be introduced to the extent that the students who do not take part in the assessment are different in achievement from those who attend the testing session. In PISA for instance, the response rates of Portuguese 15-year-old students attending grade 7 was 76%, compared to 80% for those enrolled in the 8th grade, 87% for those in grade 9 and 88% for their peers in grade 10. To the extent that students still enrolled in grade 7 at the age of 15 are likely to be low achievers who have repeated at least one grade, these differential response rates introduced a bias.
6. In educational surveys, some students might refuse to participate in the assessment. In those cases, the size of the bias introduced by student non-response is proportional to the correlation existing between the student's propensity to participate and the variables being measured with cognitive tests or contextual questionnaires. Non-response of students with a characteristic unrelated to achievement (*e.g.* tall height) would not be problematic and non-response by this group of students would not introduce a bias in the achievement mean estimate. By contrast, it may be that low achievers are more likely to refuse taking part in an assessment of learning outcomes than high achievers. In that case, non-response by low-achievers introduces a bias, whereby the achievement mean will be over-estimated. To limit the size of the bias due to non-response, international education surveys usually require a minimal student participation rates.

Assessment of the practicality of motivating students to participate

7. In addition, one has to remember that AHELO measures are intended to assist HEIs in their improvement efforts, by providing comparative benchmarks on their teaching performance to help them identify areas where to focus improvement efforts. For AHELO measures to be reliable enough to allow for drawing inference on best practice, it is therefore important that non-response biases be avoided. However good an assessment instrument may be, it will only be useful if HEIs can ensure that the estimates are representative of the target population being sampled and non-response bias are avoided. Moreover, higher responses rates are likely to enhance the credibility of the resulting measures – all else being equal.

8. For this reason convincing a sufficient proportion of sampled students to respond is important, and the success of the AHELO Feasibility Study will also depend on whether HEIs have managed to secure minimum threshold response rates during implementation for the resulting data to provide a tool for development and improvement.

How to secure students response rates?

9. First, it must be noted that the response rates vary widely between different modes of delivery. For example, when items are delivered by mail or internet the response rates can be much lower than when students are gathered in a classroom and the test is conducted there.

10. Several approaches can be considered to secure minimum students response rates. In this paper, some examples are provided and several methods to increase response rates are presented. First, two programmes conducted jointly by the OECD and participating countries are examined: the Programme for International Student Assessment (PISA) for students at the age of 15 and the Programme for the International Assessment of Adult Competencies (PIAAC) for adults aged 16 to 65. Practices taken from the National Survey of Student Engagement (NSSE), a survey whose target population – four-year university and college students – is more relevant to AHELO are then scrutinised.

11. Although several methods can be considered in order to increase response rate, the effects of the incentives can vary between countries or institutions. For example, one may think that if the participation is mandatory for students, students' response rates would be higher. But, there may be students who do not participate in the survey even they are told that participation is mandatory. And for some countries forcing students to participate in a particular assessment or survey may be difficult for reasons of social acceptance.

12. While it has to be recognised that incentive structures are likely to vary across national, cultural and socio-economic contexts, as well as according to the age of respondents, these examples may provide a basis for reflection at national level.

PISA 2006¹

13. The Programme for International Student Assessment (PISA) is an internationally standardised assessment that was jointly developed by participating countries and administered to 15-year-olds in schools. In the 2006 round, around 400 000 students were randomly selected to participate in PISA, representing about 20 million 15-year-olds in the schools of the 57 participating countries and regions.

¹ See [EDU/PISA/GB(2007)5/REV1] and [EDU/PISA/GB(2007)44].

14. Each participating student spent two hours carrying out pencil-and-paper tasks. PISA contained tasks requiring students to construct their own answers as well as multiple-choice questions. Students also answered a questionnaire that took about 30 minutes to complete and focused on their personal background, their learning habits and their attitudes to science, as well as on their engagement and motivation.

15. According to the Technical Standards for PISA 2009, the student response rate has to be at least 80 percent of all sampled students across responding schools. In PISA, some measures aiming at securing response rates are targeted at school level. Forty-five of 57 participating countries and regions responded to the National Project Manager Questionnaire administered by the OECD. According to the responses, school participation was mandatory in 12 of the 45 responding countries/regions and participation was also mandatory for students in eight of them. These 8 are a subset of the 12 where school participation was mandatory.

16. While securing response rates at the school level is not an issue for AHELO, where participation is voluntary for HEIs, some measures taken in PISA to enhance response rates of schools and/or students may be relevant in the AHELO context to increase the response rates of higher education students. Below are some examples of action taken to increase student response rates in PISA (for more details, see EDU/PISA/GB(2007)5/REV1):

- Information on PISA was provided (by distributing DVD clip, leaflets and/or other materials).
- Small gifts (pens, pencils, measuring rules, etc.) were given to the participants.
- Certificates of completion and/or feedback were delivered.
- School principals were asked to emphasize the importance of participation to students.
- Test administrators were advised to ensure that test sessions do not clash with other student activities.
- Letters were sent to participants.
- Students got a small amount of voucher (in two countries).

PIAAC

17. The OECD Programme for the International Assessment of Adult Competencies (PIAAC) is an international survey of adult skills, measuring the skills and competencies needed for individuals to participate in society and for economies to prosper. PIAAC will take place across OECD and partner countries in 2011 with results published in 2013. The survey will be carried out by interviewing adults aged 16-65 years in their homes – 5 000 in each participating country, using computers.

18. PIAAC builds on previous large-scale cross-country surveys – the International Adult Literacy Survey (IALS) from 1994 to 1998 and the Adult Literacy and Life Skills Survey (ALL) from 2002 to 2006. Three waves of IALS assessed the prose, document and quantitative literacy of adults in a total of 22 countries. ALL assessed prose and document literacy, numeracy and problem-solving in eleven countries and one state.

19. The response rates by the seven countries reported in the first wave of IALS varied between 45 and 75 percent. And in the first round of ALL, the response rate ranged between 40 and 82 percent, while

the highest was 82 percent. The importance of securing response rates was recognised from the initial stage. For example, in the first wave of the IALS, interviewers were instructed to attempt to contact a selected household several times when the sampled persons were hard to reach to maximise the response rates (Murray et al. 1998).

20. In PIAAC, a minimum overall response rate of 70 percent is the goal. However, even if the response rate is below 70 percent, there is a possibility that the data may not be biased by the high proportion of the non-response. Based on the fact that response rates in IALS and ALL were relatively low in some countries, the PIAAC assessment will draw lessons from IALS and ALL experiences and participating countries have been instructed to ensure that data collection organisation has well developed strategies for minimising non-response biases. These include planning to achieve high response rates, identification of the potential non-response before and during data collection, procedures to reduce non-response and evaluation of the effects of non-response biases (COM/DELSA/EDU/PIAAC(2008)19).

21. According to the PIAAC Technical Standards and Guidelines, each participating country may opt to provide a 'modest' incentive to obtain respondent co-operation, such as a monetary or non-monetary incentive (*e.g.* pen, notepad, candy, mug, voucher, gift certificate). However, the planned incentive must be approved by the PIAAC Consortium (COM/DELSA/EDU/PIAAC(2008)20).

NSSE

22. The National Survey of Student Engagement (NSSE) was launched in 2000 and more than 1 300 four-year colleges and universities in the United States and Canada participated in NSSE. Seven hundred and sixty-nine colleges and universities took part in NSSE 2008. The NSSE is administered to first-year and senior students. Both Web-based and paper survey administration modes are available.

23. In 2008, the average institutional response rate was 37%. The response rates varied among institutions. According to Kinzie (2006), the response rates in NSSE 2005 varied between institutions from 3 to 87 percent, highlighting that developing a strategy to secure minimum response rates thresholds may have a powerful impact on response rates.

24. Below are some examples of what several HEIs did to secure higher response rates²:

- Repeated and consistent requests for participation.
- Education-oriented tokens of appreciation (bookstore coupons, pens, highlighters).
- Writing an article for the student newspaper that explained the importance of the survey and how the results would inform institutional planning.
- Posting flyers on every computer.

Recommendations

25. Besides the practices described above, there are other variables that are known to affect students' response rates.

² See also <http://nsse.iub.edu/html/tips.cfm?CFID=458866&CFTOKEN=6f5ce4f5406d11ba-D6257F62-E021-6591-0D44B297F9F8FD9B>

26. Student background characteristics for instance, can impact on response rates. Some groups have been shown to display different response rates. Several studies carried out in the US context indicate that women, students with high SAT (Scholastic Assessment Test) scores and who categorise themselves as “whites” are more likely to respond to educational surveys than men, students with lower SAT scores and students from historically-disadvantaged minorities.

27. Institutional characteristics also matter: urban and dense campuses or institutions with a high percentage of part-time students usually obtain lower response rates through Web survey modes. By contrast, public schools are also more likely to obtain higher response rates than their private counterparts.

28. Some characteristics of the surveys themselves may also be important. Response is usually more likely if the questionnaires are relatively short and of high interest to participants, whereas questionnaires containing sensitive questions are less likely to yield answers. Questionnaires sent from the institutions themselves are also more likely to be returned than those emanating from other sources.

29. Finally, the mode of delivery of the surveys also has an impact. Research suggests that web-based surveys yield lower response rates than those conducted by paper-and-pencil [Porter and Whitcomb (2005), Porter and Umbach (2006)]. With respect to mail surveys, those sent by recorded delivery or with stamped return envelopes yield higher response rates. Contacting participants before sending postal questionnaires to explain the study objectives, how the data will be used and whether feedback will be provided to respondents may also be beneficial, just like the follow-up of non-respondents.

30. As stated above, there are many variables that affect students’ response rates. Some of these variables – especially student and institutional characteristics – are fixed. Furthermore, the effectiveness of incentives may vary among countries or institutions. So, like other surveys, each participating country and institution has to develop strategies to achieve high response rates in its context particular.

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