



Briefing Note: PISA Frequency Recommendation

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| To: | Hon Jan Tinetti, Associate Minister of Education | | |
| Cc: | Hon Minister Hipkins, Minister of Education | | |
| Date: | 11 February 2022 | Priority: | Low |
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| Drafter: | Emma Medina | DDI: | 04 439 5013 |
| Key Contact: | Barclay Anstiss | DDI: | 9(2)(a) |
| Messaging seen by Communications team: | No | Round Robin: | No |

Purpose of Report

The report summarises the results from a consultation process regarding the future frequency and design of PISA. It is recommended that you agree that we submit to the PISA Governing Board that it is New Zealand's preference to move from a 3-yearly to a 4-yearly cycle.

Agree / Disagree

Summary

- The OECD requests New Zealand's position on the future frequency and design of PISA, due on 20 February 2022
- After consulting with internal and external stakeholders, we recommend that New Zealand's position is for PISA to move from a 3-yearly to a 4-yearly cycle.

Proactive Release

- Agree** that the Ministry of Education release this briefing in full once we have submitted our national position on 20 February 2022.



Tom Dibley
National Director
Educational Measurement & Assessment
11/02/2022



Hon Jan Tinetti
Associate Minister of Education

12/02/2022

Agree / Disagree

Background

1. The Programme for International Student Assessment (PISA) is an international research programme that assesses 15-year-olds' knowledge and skills in reading, mathematics, and science literacy.
2. In October we informed you that the PISA Governing Board (PGB) is requesting a national position from each OECD country (and two member countries) on a proposal to decrease the frequency of the study from being 3-yearly to 4-yearly (See Metis 1272475).
3. Currently PISA is 3-yearly and rotates between reading, mathematics, and science as being a 'major' domain in each cycle. More items are given to students in the major domain compared to the minor domains. Around 220 schools are required.
4. The 4-yearly proposal has a 'balanced' design. All three subjects are given equal attention in each cycle and slightly more schools and students will need to participate. This would increase measurement precision for the previously 'minor' domains and support more accurate trend information. Annex 1 details the proposal.
5. We gathered feedback on the proposal from Te Puna Kaupapahere and from external stakeholders including Treasury, DPMC and Stats NZ to form a recommendation.

Recommendation

6. The general themes from the feedback were 1) a preference for a more balanced look across all domains and 2) a willingness to trade off a decline in frequency for more precise trend and sub-group (i.e. ethnicity) analysis. Support was also given for a reduced burden on schools given the lower frequency and more time to analyse and use the information in a meaningful way
7. While all stakeholders rely on PISA to monitor the wellbeing and educational outcomes of ākonga, they also acknowledged a change from 3-yearly to 4-yearly would not have a significant impact. PISA does not feed into annual reporting as is, and it is not used to directly evaluate policy initiatives.
8. For these reasons we recommend that New Zealand submits as our preference a 4-yearly PISA cycle.
9. A risk we face with this position is criticism that in the absence of annual reporting on performance outcomes (besides NCEA attainment) this would further decrease the data we have on learner achievement. Therefore, we must be clear that the benefits of a balanced design (higher quality data) outweigh the costs of one additional year between cycles. Additionally, even if PISA remained at 3-yearly, the information would still only be used to monitor medium- and long-term shifts in the system and will never be as responsive as annual measures.

Next Steps

10. We will submit our national position to the OECD by 20 February.
11. The PISA Governing Board will make a final decision at its April meeting. If 4-yearly is adopted, the next cycles will be 2025 then 2029.

Annexes

Annex 1: Comparison of PISA Cycle Options

Annex one: Comparison of PISA Cycle Options

| | Option A: 3-yearly (current design) | Option B: 4-yearly | Pros of Option B | Cons of Option B |
|--|---|---|---|---|
| <i>The assessment design is...</i> | 1 major domain (with more testing time) and 2 minor domains. Major domain has related questionnaire. Innovative domain each cycle | Balanced – all 3 domains have equal testing time. One domain is 'focal' with a related questionnaire. Innovative domain each cycle. | All domains equally represented More time for development of innovative domain. | Questionnaire data for one domain every 12 years instead of every 9. Less opportunity for repeats of innovative domains. |
| <i>The measurement precision is...</i> | Reliable and robust for all domains. Major domain precision is slightly higher than the minor domains. | Reliable and robust for all domains. Increased precision for current 'minor' domains, equal to that of the 'major' domain. | Equally and highly precise for all domains every cycle. | Increase in precision may not be substantial i.e., no noticeable difference in any conclusions derived from the data. |
| <i>Trend data...</i> | Is reported for all domains. | Is reported for all domains. | Will benefit from more precise and robust measures, i.e., smaller margins of error around the results. | Is less frequent, i.e., we receive results every 4 years rather than every 3, and may have to wait 8 years to determine if a real change has occurred (compared to 6 years) |
| <i>Sample size (school burden) is...</i> | ~220 schools (out of 485 eligible) | Increased to ~250 schools (out of 485 eligible) | Schools invited every 4 years instead of 3. Larger samples of sub populations (i.e., ethnic and SES groupings), potentially slightly more precise measurement of these groups. | 14% increase in number schools are asked to participate each cycle. Required 85% response rate is harder to achieve with more schools. |

| | Option A: 3-yearly (current design) | Option B: 4-yearly | Pros of Option B | Cons of Option B |
|---|--|---|---|---|
| <i>The Ministry has a...</i> | 2-year overlap of work between PISA cycles (development overlaps with Main Survey, field trial preparations overlap with reporting). | 1 year overlap between PISA cycles (development overlaps with reporting). | Stronger focus on one cycle at a time, more time in the cycle for analysis and dissemination. | Operational expertise (MoE and contractors) may be lost between cycles. Higher national costs in data collection year. |
| <i>Each domain framework and item pool are updated every...</i> | 9 years | 12 years | More time for development and testing | Less frequent updates to each framework |
| <i>International costs are...</i> | In line with previous cycles, adjusted for inflation. | Lower annualised costs, but higher per cycle. | Lower annually. | Lower value for money. |
| <i>The overlap with other studies...</i> | Ranges from cycle to cycle with potential to overlap with TIMSS Year 9 (see appendix). Cohort analysis is possible every 12 years. | Will consistently be one year behind TIMSS. | Schools won't be asked to participate in both TIMSS and PISA in same year. | Less opportunity to examine cohort effects between studies. |