<p style="text-align:center;">**Senate Committee: Education and Employment**</p>

<p style="text-align:center;">**QUESTION ON NOTICE**
**Budget Estimates 2015 - 2016**</p>

**Outcome: Agency: ACARA**

**Department of Education and Training Question No. SQ15-000306**

Senator Wright, Penny asked on 04 June 2015, Proof Hansard page 61

*ACARA: autoscoring*

**Question**

Senator WRIGHT:  The question that comes from that is: will that not potentially encourage even more teaching to the test in that students will write in a format that computers will be able to process?

Dr Rabinowitz:  Senator, it is the same series of issues. The research that I have seen, and I would be happy on notice to provide you with the research, is that on controlled studies the autoscoring typically does as well, if not better, than human markers. I am not making this up. I would be happy to provide a list of studies. That is all I can say.

**Answer**

The Australian Curriculum Assessment and Reporting Authority (ACARA) has provided the following response.

- Shermis, Mark.D. 2014, State-of-the-art automated essay scoring: competition, results, and future directions from a United States demonstration:

  https://ideaexchange.uakron.edu/foundlead_ideas/1/

- Foltz, P. 2013, Analysis of student ELA (English, Language, Arts) writing performance for a large scale implementation of formative assessment:

  http://kt.pearsonassessments.com/download/Automated_Scoring_for_ELA.pdf

- Williamson, D. M., Bennett, R. E., Lazer, S., Bernstein, J., Foltz, P. W., Landauer, T. K., & Sweeney, K. 2010, Automated scoring for the assessment of common core standards:

  https://www.ets.org/s/commonassessments/pdf/AutomatedScoringAssessCommonCoreStandards.pdf

- Williamson, D.M, Xi, X., & Breyer, F.J. 2012, A framework for evaluation and use of automated scoring. Educational Measurement: Issues and Practice, 31, 2–13:

  http://onlinelibrary.wiley.com/doi/10.1111/j.1745-3992.2011.00223.x/abstract

- Zhang, M. 2013, Contrasting Automated and Human Scoring of Essays:

  https://www.ets.org/Media/Research/pdf/RD_Connections_21.pdf

While the studies cited above provide compelling evidence of the effectiveness of automated essay scoring (AES) for NAPLAN-type writing, ACARA still intends (as it will do for all of its research studies) to trial AES systems specifically on NAPLAN prompts with Australian students.  Additionally, many studies recently completed have not yet made their way into the published literature.  ACARA staff are in contact with these researchers and can attest to the existence of significant additional evidence supporting the use of AES systems for programs such as NAPLAN. This includes consistent evidence that AES systems closely match or even exceed agreement rates of human scorers (reliability) as well as produce scores that conform to known values (validity).