

From: **Crandall, Rich**  
Date: Thu, Apr 14, 2016 at 12:00 PM  
Subject: RE: PARCC SCORING  
To: Cheri Kiesecker

Ms. Kiesecker,

Thank you for your email and your good questions about automated scoring. I understand that this is a technology many people are unfamiliar with and have questions about. I hope our answers, below, are helpful to you.

Regards,

Rich Crandall

Rich Crandall, CPA, MBA, SNS  
Commissioner of Education

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**From:** Cheri Kiesecker  
**Sent:** Saturday, April 09, 2016 12:29 PM  
**To:** Crandall, Rich;  
**Subject:** PARCC SCORING

Dear Commissioner Crandall and Chairman Durham,

There is concern over the machine scoring of PARCC essays. The Parent Coalition for Student Privacy (of which I am a member) sent you this letter last week and has also sent the same letter to all PARCC and SBAC states <http://tinyurl.com/z58h4zn> .

The Parent Coalition has received responses from several states thus far. I am hoping to hear from you, regarding what extent PARCC will be using machine scoring in Colorado.

**1. What percentage of the ELA exams in our state are being scored by machines this year, and how many of these exams will then be re-scored by a human being?**

PARCC was built to be a world-class digital assessment, integrating the latest technology to drive better, smarter feedback for teachers, parents, and students. Automated scoring drives effective and efficient scoring of student assessments, resulting in faster results, more

consistent scoring, and significant cost savings to PARCC states. This year in Colorado, roughly two-thirds of computer-based written responses will be scored using automated scoring, while one-third will be hand-scored. Approximately 10 percent of all written responses will receive a second hand scoring for quality control.

**2. What happens if the machine score varies significantly from the score given by the human being?**

Automated scoring will only be used in instances in which it has demonstrated that it is scoring consistently with human scorers. (The system is actually trained based on papers that have been scored by humans. The system is then tested to evaluate its level of consistency with humans.) Areas in which automated scoring does not demonstrate consistency with human scoring will continue to be scored by humans.

**3. Will parents have the opportunity to learn whether their children’s ELA exam was scored by a human being or a machine?** Scoring is not done at the student level. It is done at an item level. In other words, one scorer will evaluate the same question on multiple students’ tests. In Colorado, parents with students taking the computer-based English language arts assessments can assume that some items will be scored by humans, some will be scored by the automated scoring.

**4. Will you provide the “proof of concept” or efficacy studies promised months ago by Pearson in the case of PARCC, and AIR in the case of SBAC, and cited in the contracts as attesting to the validity and reliability of the machine-scoring method being used?**

Yes, you may find the link to the proof of concept report [here](#).

**5. Will you provide any independent research that provides evidence of the reliability of this method, and preferably studies published in peer-reviewed journals?**

The proof of concept report has three pages of references at the end that provide evidence of reliability. You can also find the same information [here](#).

**I would like to ask two additional questions, specific to our situation here in Colorado:**

1. Since districts have the option of paper pencil and with so many schools choosing to do paper pencil assessments, how will be paper pencil versions of the test be graded? ( by humans or scanned in, graded/ scored by machine?)

Paper/pencil answers will be scored by humans.

2. If the assessments are scored by humans, how are those positions filled and what are the qualifications and training for test graders? (Will Colorado be advertising and choosing PARCC / CMAS graders from craigslist again this year?)

Pearson is responsible for hiring the scorers.

All scorers must at least have a bachelor's degree (four year degree). Scorers undergo training item by item. After training, they must pass a qualifying test. It is only after passing a qualifying test, that scorers are allowed to score live responses. Throughout the scoring process, previously scored papers are interjected intermittently to check for ongoing accuracy. In addition, 10 percent of papers go through a second scoring to verify reliability. Scorers who do not meet consistency expectations are dismissed and those papers scored by that scorer are rescored.

In sum: there are many unanswered questions about the lack of evidence of machine scoring that will be used for 2/3 of the PARCC ELA exams , with only 10% of those rechecked by humans. Additionally, how can we be sure that qualified humans are grading these assessments?

See response to prior question.

Thank you for your help.

Best,

Cheri Kiesecker, parent