RASCH ANALYSIS OF EXAMS: A WAY TO DOCUMENT GRADUATE OUTCOMES TO EMPLOYERS?

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Abstract

This presentation reports of a Rasch analysis (Rasch, 1960) performed on two final exams for first year, service taught, chemistry subjects. These subjects targeted students of vastly different educational backgrounds, but the exams were designed and proofed by the same team of academics.

Using this approach, we were able to assess the performance of students as well as that of the exam questions (Bond and Fox, 2007).

Importantly, we were pleased that for both exams, the performance of students correlated well with their grades.

For each subject a number of important topics and categories of material exist as learning outcomes for the students. Analysis of the exam questions within these topics and categories allows a quantified measure of how each student does on each topic.
This talk will briefly examine a sample of students' information based upon these categories. It will suggest such information could be provided by students to employers in order to evidence the student's mastery of a discipline, as defined in the subject(s) learning outcomes and along a scaffolded continuum (from first year to final year).

References

Bond, T. G. and C. M. Fox (2007). Applying the Rasch Model. Fundamental Measurements in the Human Sciences. Mahwah, New Jersey, Routledge.
Rasch, G. (1960). Probabilistic models for some intelligence and attainment tests. Copenhagen, Danmarks Paedagogiske Institut.