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Abstract

Today most e-tests that created using the commercial tools for e-test generation or the Learning Management Systems (LMSs) such as Moodle or others don't provide a methodology

for a perfect assessment of short answer questions. Unfortunately all of them provide a binary assessment that can be 1 (for completely True) or 0 (for completely false) even if the answer is partially true or partially false. So in this paper the author presents a new intelligent methodology, and its implementation, for computer based assessment of the student's short answer in e-test with English or Arabic language. This methodology is based on applying the Soundex phonetic algorithm on the answer's word for English or Arabic language to facilitate a computer based intelligent marking method. The student who responds with the correct spelling answer's word takes the total point of the question while the student who responds with the correct sounding but not correct spelling word may take points less than or equal to the total points according to the considered subject and the instructor's opinion. This intelligent marking method can be used for subjects that are not required correct spelling answers such as Science, Humanities and other subjects rather than the "languages" subjects. This paper also presents a new enhanced Soundex algorithm for Arabic language that achieved less error rates than the present algorithms as shown in the experimental results

Reference

- "E-Assessment of Short-Answer Questions", a white paper, Intelligent Assessment Technologies Ltd. Retrieved 2011 from www.IntelligentAssessment.com
- Articulate Quiz Maker (<http://www.articulate.com>).
- QuizStar is a FREE Quiz-making Tool, <http://quizstar.4teachers.org/>
- Dynamic PowerTrainer® Editor 3.9 manual, © 2010, Imc information multimedia communication GmbH. Retrieved at 2011 from <http://www.imc.de/fileadmin/imc/images/POWERTRAINER/PDF/POWERTRAINER-manual.pdf>.
- www.Moodle.com
- Susan M. Philips, "Automated Essay Scoring", a literature Review, Copyright © 2007 Society for the Advancement of Excellence in Education (SAEE). www.sae.ca.
- Dikli, Semire, "An Overview of Automated Scoring of Essays", Journal of Technology, Learning, and Assessment 5 (1), 2007, p. 4.
- Landauer T. K., Laham D., and Foltz P. W., "The Debate on Automated Essay Grading: The Intelligent Essay Assessor", IEEE, 2000, pp. 27-31. Retrieved from <http://www.pearsonkt.com/papers/IEEEdebate2000.pdf>
- Rudner, Lawrence and Gagne, Phill, "An Overview of Three Approaches to Scoring Written Essays by Computer", Journal of Practical Assessment, Research & Evaluation, 7 (26), 2001, p.5.
- Page, Ellis Batten, Project Essay Grade: PEG in Automated Essay Scoring: A Cross-Disciplinary Perspective. Edited by Shermis, Mark D. and Burstein, Jill. Lawrence Erlbaum Associates: Mahwah, New Jersey, pp.44-45.
- Lawrence M. Rudner, Veronica Garcia, Catherine Welch, "An Evaluation of IntelliMetric™ Essay Scoring System", Journal of Technology, Learning, and Assessment volume 4, No 4, 2006.
- Attali Y. and Burstein J., "Automated essay scoring with E-rater® V.2", Journal of Technology, Learning, and Assessment 4 (3), 2006, p. 7.
- Attali Y. and Powers D., "Validity of scores for a developmental writing scale based on automated scoring", Journal of Educational and Psychological Measurement, 69, 978–993,

