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| Dumbledore: A Vision Based Attendance Analyser  Harry Lynas  BSc Computer Science, pm002501@reading.ac.uk  **ABSTRACT**  This paper presents the proof of concept for a vision based attendance analyser. PCA and the extension WMPCA are two facial verification algorithms that are used in this application to try and determine which students are present or absent in a lecture setting. WMPCA outperforms PCA by better handling environmental issues such as poor illumination, providing the core feature of facial verification needed to implement such a system. Tests are provided that show the algorithms different success rates with different data sets, highlighting how WMPCA is feasible to use for this system. This proof of concept could be developed into a full application due to the testing done and the exemplar audit features provided.  **Figure 2. Testing the University of Essex Facial Databases** |
| H Lynas, Dumbledore: A Vision Based Attendance Analyser, *Proc. 14th School Conf. for Annual Research Projects*, University of Reading, 23rd April 2015. |