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# ANALYSIS BETWEEN CLASSICAL EVALUATION AND M-EVALUATION

Empirical  
studies

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## Keywords

M-Learning  
M-Evaluation  
Mobile devices  
Mobile application  
Evaluation results

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## JEL Classification

D83

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## Abstract

*Assessment of students is achieved in a classical way through paper with open questions or questions that the student chooses the correct answer from a list provided in the question or the submission of projects completed during the school year. The results of the evaluation are provided in another meeting of teacher with the students, after teacher corrects their evaluation. Another way of evaluation is the assessment of students through mobile devices: M-Evaluation. This paper presents an analysis of the results obtained by 79 students through various modes of evaluation: M-Evaluation, projects and final exam. And presented the degree to which a student gets a note through the three modes of evaluation. The scope of the paper is to present the importance of using the M-Evaluation in educational environment.*

### 1. Classical assessment in the classrooms

In a classroom learning environment students go to college where they have courses and seminars. Here they meet with teachers at set times and rooms with a defined space. A professor teaching a course a number of 50-200 students. This model of education is focused on the group of students represented by the group or series.

Their assessment is done on paper with open questions or questions that the student chooses the correct answer from a list provided in the question. The results of the evaluation are provided in another meeting of teacher with the student after teacher corrects their evaluation. In (Zamfiroiu, 2014) is shown how two meetings between teacher evaluation and student, Figure 1. In a classical education the students have only one profile and they are treating as a homogeneous collectivity even if they are divided in inhomogeneous collectivities.

A solution to this problem is to assess individual students so that each be considered a separate entity and treated as such.

Another solution to this problem is to evaluate the smaller groups and homogeneous. For profiles that are set based on the profile of students and established students are grouped in homogeneous groups and the evaluation is performed on each group established, Figure 2. In this way ensure a fair evaluation of student.

### 2. Mobile applications and M-Learning

In (Al-Sayyed et al, 2010) mobile application is defined as an application that runs on devices that are used wherever their user travels. By their nature mobile applications are small, portable and have a personal quality. Issues such as the interface, display size, method of input data, wireless and security losses should be considered even during application development. Programmers coming from programming desktop applications should be very careful when programming mobile applications such as managing resources and managing wireless device. Developers who are aware of the differences between personal computers and mobile devices on memory resources, minimal interface or power capped develop mobile applications more efficient.

According to (Sofany & Seoud, 2011) mobile applications running on increasingly smaller devices and gives the user the advantage of connecting to the Internet from anywhere in the network.

In (Breton et al, 2012) characteristics of applications running on mobile devices with touch screen are presented:

- removing images, buttons and non-essential functions;

- components such as images, buttons or textbox sites must be constructed so as to have a suitable size size device can be easily seen and pressed for buttons;
- adding voice output components menu;
- vibration and ringing alert menu to select components.

According to (Obisat & Hattab, 2009) M-Learning is a development direction of learning for mobile users. E-Learning and web-based applications have been very popular allowing users to access information via internet directly on the PC. M-Learning and Mobile E-Learning allows the user to access information via the Internet through mobile devices. In the M-Learning, courses and the platform is customized for each user. Customization is done in the following steps:

- user profile modeling;
- acquiring information about the user;
- generating personalized services.

In (Sayin & Allahverdi, 2011) presents definitions of the concept of m-learning. All definitions presenting two components: technical component represented by mobile devices and pedagogical component represented by informational content presented through technical component. The general definition is that m-learning allows the student access to training information anywhere via flexible and comfortable mobile devices. Mobile devices are easily carried by users and taken anywhere and anytime by them.

Learning course content on the mobile device must be adapted so that they are easy to read and use all the tools with which the device is equipped and playback of audio, video playback ability or opportunity internet.

### 3. M-evaluation

To evaluate the students a mobile application prototype is developed with this scope.

In the application are available courses and tests to assess students. Evaluation is done by choosing the correct answer from a list of possible answers provided in question, Figure 3. Application tests provided to students for a period of time so that students have time supportive tests when available. Students have held a number of five tests through mobile applications totaling a score of 30 points, Figure 4. In the application 72 students out of 79 have sustained at least one of the five tests and obtained scores from M-Evaluation.

### 4. Comparison between results obtained by the students

The students were evaluated and classically through teaching seminar project and final written exam held in a classroom.

In Figure 5 the observed differences between the results obtained by 20 students from M-evaluation, projects and final exam taught in seminar supported the classic paper in a classroom.

Thus the same student assessed in different ways gets about the same results. Thus M-Evaluation can be included in the assessment of students because it reflects the reality of the knowledge acquired by the student like other forms of assessment such as teaching or evaluation projects in classically in a classroom on a written exam.

Figure 6 presents an assessment report for each of the grade obtained by the students. Thus we see that the student obtained after the evaluation does not depend on how it was rated and only its knowledge. Assessment modes contribute equally to the mark obtained by the student.

## 5. Conclusions

Smart mobile devices and mobile technology progresses greatly allowing their use in the educational environment. Students access courses via mobile devices provided by the teacher via mobile platforms and, also support testing through applications running on these mobile devices. Evaluation is comparable to classical assessment in the classroom or with achieving and sustaining a project that matters.

## 6. Acknowledgement

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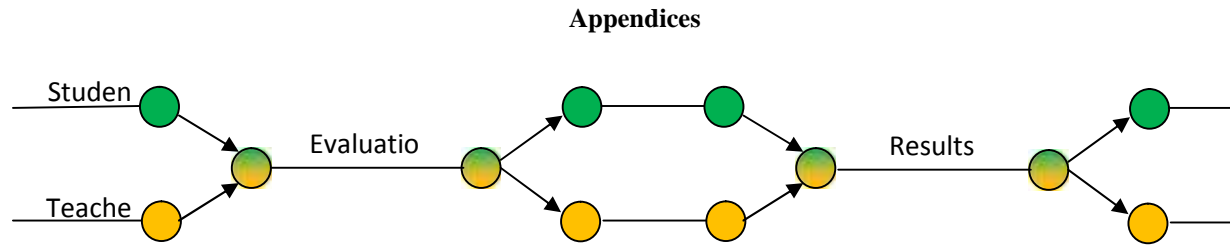


Figure 1. Examine workflow with two meets (Zamfiroiu, 2014)

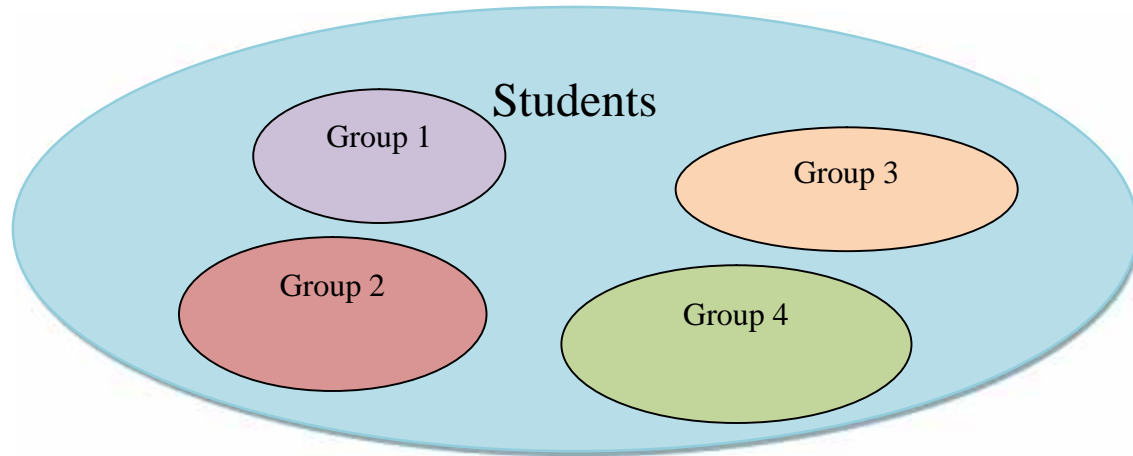


Figure 2. The crowd of students formed by homogeneous groups

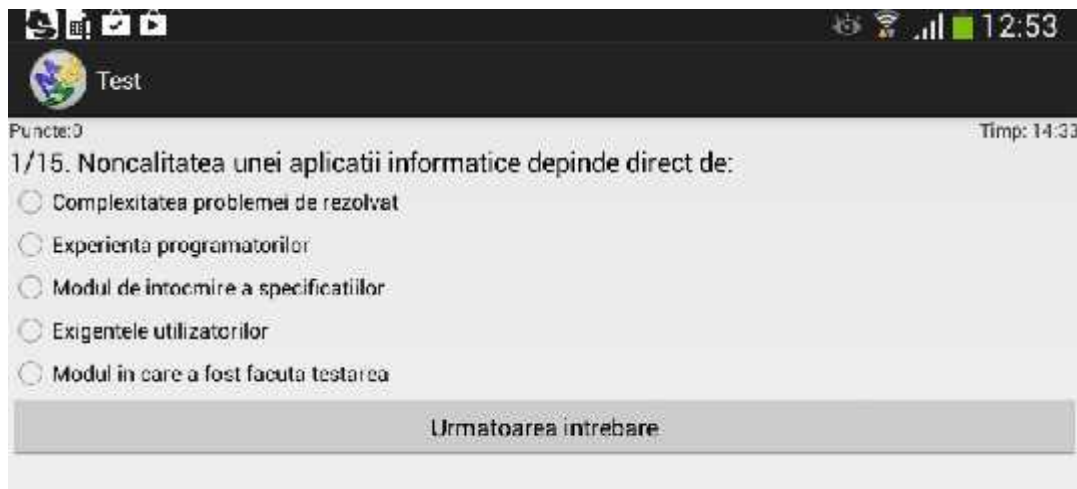


Figure 3. Question of the test in mobile application

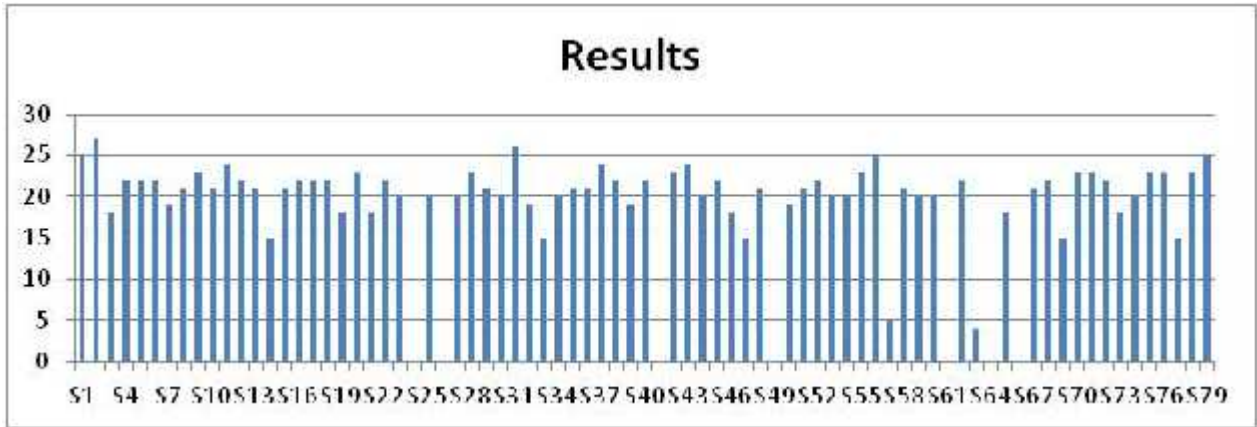


Figure 4. Results of M-Evaluation



Figure 5. Comparison between M-Evaluation, projects and final exam for 20 students

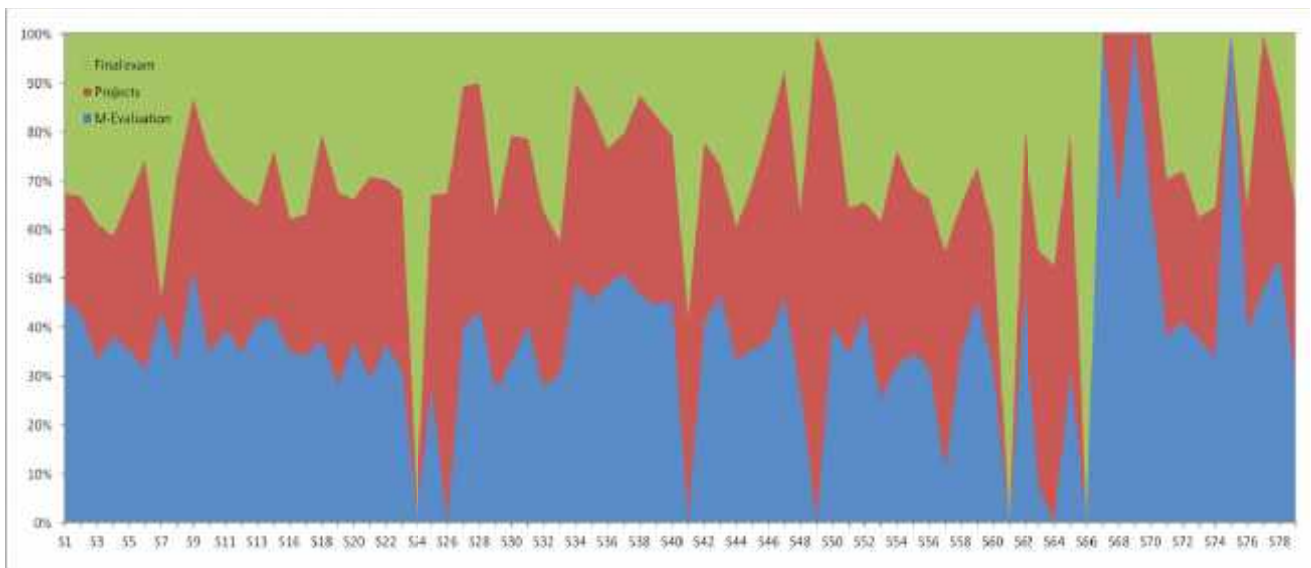


Figure 6. Comparison between M-Evaluation, projects and final exam

