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THE CLICKER IN PEER ASSESSMENT

In recent years the concept of peer assessment has highly developed among educational researchers. This assessment method has become common in institutions of higher education and in education institutions in general. In courses taught in small groups, special emphasis was laid on developing students' higher-order thinking skills. One of such skills is assessment ability. Students learn to evaluate their work (self-assessment) as well as the work of their colleagues (peer assessment). According to the educational researchers, students should take an active part in the evaluation of their work and the work of their fellow classmates [6]. Peer feedback not only focuses on the evaluation but is also a part of the learning process aimed at developing higher-order thinking skills [3]. Peer evaluation process requires more responsibility on the part of students who value, fairness and accuracy towards the work of their colleagues [4]. While studying in a small group dynamics arises between the group members. These relations may affect the feedback content. In many cases peer feedback forms are not anonymous. We believe that visibility of the feedback has a great impact on its content. The research indicates that in many cases feedback is affected by the interpersonal relations between the group members [1]. These cases refer to the situations when critical feedback may be treated a personal affront and damage relations between the group members. To avoid these situations group members tend to "sweeten" the results of the assessment, that doesn't always reflect their real views on the work of their colleagues.

In our research we used the technology that allowed absolute anonymity between the feedback providers. This technology is a system of immediate feedback (Classroom response system) known as the Clicker. The system includes personal remote panel, the receiver, connected to the teacher's computer and the computer software that shows the poll results to the teacher. Students are asked to choose the correct answer and click on the appropriate letter on the panel. The teacher gets the final report with all the answers that come out of the panels. This system can control to what extent the students are sincere and present their response if necessary.

The Clicker system serves many purposes in the process of learning. There is a wide use for a test of the degree of mutual understanding among the students in the classroom. There is a significant advantage when it comes to participating in many classes. With the use of this technology active interaction is possible in the classroom and it helps to achieve the primary goal of the lesson that is active covering of learning material [5].

In our research we used the Clicker to achieve absolute anonymity between the respondent and the recipient of the feedback. There are investigations indicating that when the feedback is not anonymous, there is a negative impact on the content of the feedback [2], there is difficulty in assessing the work of the members fairly. The research examines the attitudes of the students towards the different ways to provide feedback (anonymously and non-anonymously) and the degree of visibility influence on the feedback results.

The purpose of the study was to examine the impact of anonymity on the results of the peer feedback.
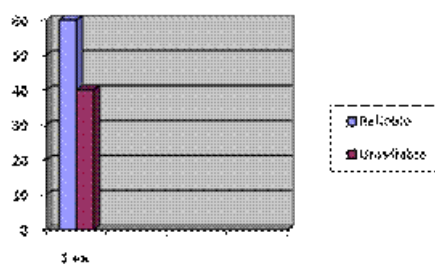
The research questions are:
1. Is there a difference between the results of anonymous and non-anonymous feedback from the students' point of view?
2. To what extent does the feedback received with the help of the Clicker reflect the opinions of the respondent?
3. Does the use of the Clicker affect the estimation they give?

Organization and carrying out the experiment. The experimental group included about 20 students studying at Ariel University Center of Samaria. The experiment was carried out in the course "Teaching E-learning Environment". During the course the students were asked to prepare and hold a presentation in front of the class. At the end the presentations were estimated by the students with the help of the Clicker. There were multiple choice questions about the contents and the design of the presentations. Students were asked to choose the ground that they believed was the best to describe the presentation and press the corresponding number on the panel. At the end of the questionnaire the students were asked to express their attitude towards the reliability of the feedback with the help of the Clicker and the influence of the anonymity on the peer assessment. The questionnaire contained five questions. Two questions referred to the peer assessment and three questions were connected with the evaluation of the feedback makers.

The results of the research

The results of the research based on the feedback form are inconclusive but point out to the special findings.

Question 1 concerned the reliability of the peer feedback with the help of the Clicker. The results can be seen in Figure 1:
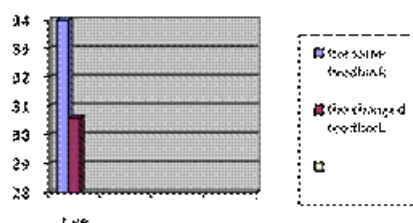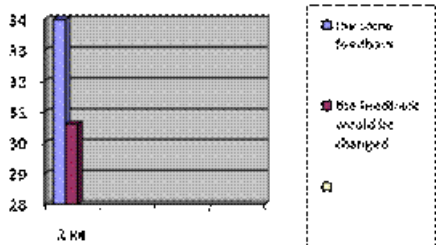

Reliability of the peer feedback with the help of the Clicker.

About 60% of the students defined their feedback with the help of the Clicker as reliable compared with the 40% who think that it was unreliable.

One of the comments received from the students: "The person who estimates the work of another person (not his fellow classmate) with the help of the Clicker does it "at a stroke of the pen". He may easily ruin the work of another person marking it as a bad one. While filling in a written questionnaire and criticising he would think twice and wouldn't do it so easily. In addition, if he changes his mind he can correct it on the paper, but he cannot correct the answer using the Clicker".

Question 2 asked the students to express their opinion about whether their feedback content would be different if it were non-anonymous. The results can be seen in Figure 2:
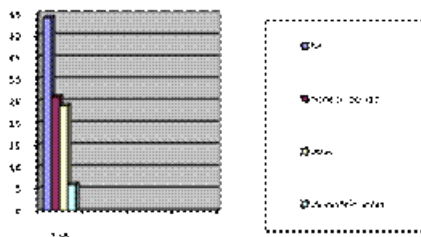
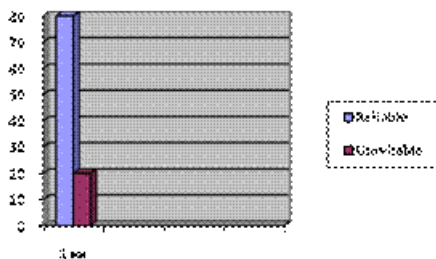*Influence of the anonymity on the content of the feedback*

About 34% of the students think that they would give the same feedback if it were not anonymous. In contrast, about 66% of the students think that they would change the content, if the feedback were not anonymous. About 46% of the students believe that they would give less critical feedback if it were not anonymous and 20% state, that they would completely change their feedback if it were not anonymous.

Question 3 concerned the fairness of the received feedback. The results are shown in Figure 3:
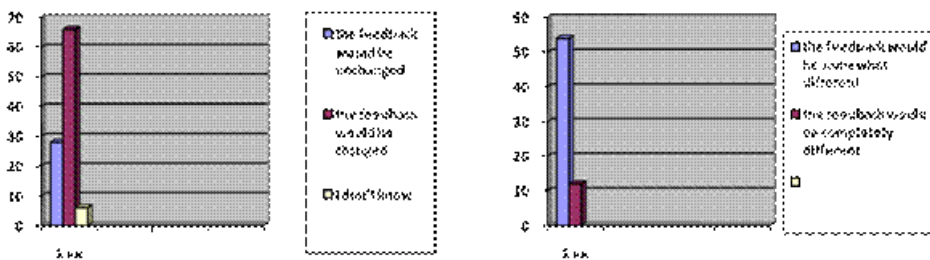

Fairness of the received feedback

Question 4 asked the students about the reliability of the received feedback. The results are shown in the Figure 4:

Reliability of the received feedback

About 80% of the students think that the feedback received from the colleagues with the help of the Clicker is reliable, which means that the students are confident the score they received with the help of the Clicker indeed reflects the real opinions of their colleagues.

The last question asked the students if the results would change if they used another non-anonymous tools (not the Clicker), for example, a questionnaire. The results are shown in Figure 5:

Influence of the Clicker usage on the feedback content

Only about 23% of the students think that the feedback wouldn't change at all. About 67% of the students believe that the feedback would be different. 54% are sure that the contents of the feedback would be somewhat variable, about 12% think that the feedback would be completely different. About 6% of the students couldn't give a definite answer and chose the last option.

Conclusions. In light of the results obtained, we can see that the students think the feedback depends on the anonymity of assessment. Most of them would change the content of the feedback if it were not anonymous. So we can recommend the usage of the Clicker for peer assessment as it provides an anonymous feedback that contributes to the learning process and higher-order thinking skills development. The prospects for the further investigations lay in the field of the research of other information technologies usage in the educational process.

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SUMMARY

The article is dedicated to the issue of peer assessment: it analyzes influence of anonymity of assessment on its results; investigates validity of assessment results obtained by means of a device called "The Clicker". The held experiment demonstrates that the content of assessment would change if it were not anonymous. Relying on the investigation results "The Clicker" can be recommended for usage in educational process.

Keywords: assessment, anonymity of assessment, assessment validity, "The Clicker".

Роман Явич, А.М. Геркерова
ВЗАИМООЦЕНИВАНИЕ С ПОМОЩЬЮ УСТРОЙСТВА "CLICKER"

РЕЗЮМЕ

Статья посвящена вопросу оценивания студентами работ друг друга, анализируется влияние анонимности оценивания на его результаты, исследована валидность результатов оценивания, полученных с помощью устройства "**Clicker**". Экспериментально доказано, что содержание оценивания было бы изменено, если бы оно проводилось не анонимно. Основываясь на результатах исследования, устройство "Clicker" может быть рекомендовано для использования в учебном процессе.

Ключевые слова: оценивание, анонимность оценивания, валидность оценивания, устройство "Clicker".

Роман Явич, О.М. Геркерова
ВЗАЄМООЦІНЮВАННЯ ЗА ДОПОМОГОЮ ПРИСТРОЮ "CLICKER"

РЕЗЮМЕ

Стаття присвячена питанню оцінювання студентами робіт один одного, аналізується вплив анонімності оцінювання на його результати, досліджена валідність результатів оцінювання, отриманих за допомогою пристрою "Clicker". Експериментально доведено, що зміст оцінювання було б змінено, якби воно проводилося не анонімно. Засновуючись на результатах дослідження, пристрій "Clicker" може бути рекомендований для використання в навчальному процесі.

Ключові слова: оцінювання, анонімність оцінювання, валідність оцінювання, пристрій "Clicker".

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