PEDAGOGY

THE IMPACT OF CLASSROOM RESPONSE SYSTEM ON PEER EVALUATION

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Abstract. *Peer evaluation being an active type of learning develops learners' interactivity, speaking, listening, critical thinking abilities. Unlike the passive learning, in active learning students are more engaged in the evaluation process of presentation made by their peers, which significantly encourages student participation. Applying Classroom Response System students gain the ability to instantly respond and react, since this activity requires continuous attention. Promoting student-instructor interaction this technique leads to the involvement of students to class discussion simultaneously providing information about efficacy of the comprehension of the new topic. A significant point to be taken into consideration is the individual approach to every student.*
Keywords: *peer evaluation, error correction, classroom response system, individuality, motivation*

The modern society nowadays is experiencing significant changes. We can currently ascertain that educational process in Azerbaijan has reached a new level of development. The changes taking place in various spheres of modern education require adequate evaluation and scientific comprehension. The primary goal of education has become the development of an independent individual, who is to be well-prepared for interaction with the environment, as well as ready for self-education and self-development. To achieve this educational independence, it is significant to have an open-minded student consequently, this may be achieved by giving him control to evaluate and eliminate the causes of his as well as his peers' difficulties. Basically, at some level peer assessment warrants a certain level of maturity on the student, since he must be able to acknowledge others' points of view and recognize that the same information may be formulated in different ways [2].

For the past decades the concept of *peer evaluation* has highly come into fashion among researchers in the field of education. This particular method is common not only at universities, but in educational institutions in general. It is much valuable and effective in encouraging and enabling to "think outside the box" since it is more than just providing a process for evaluation, moreover, it ensures learning experience for all participants of it [4]. Thus, the students learn to evaluate not only their own work but the work of their peers as well. It allows them to hone empathy skills – a vital clause for interpersonal relations. This concept is especially effective in small groups [2].

Chickering and Gamson distinguish two types of learning – active and passive. According to them, traditional classes promote passive learning, since the students are not much engaged in the process of lecture/presentation made by instructor, unlike the active learning- that encourages student participation [7]. As a rule, the use of modern technologies in lectures, i.e. class presentations, role games, audio listening, etc. is becoming more and more popular. Plus, if the lecturer actively uses such presentations throughout the classes, he needs to use more active forms of work with the audience. Naturally, with a small audience of 10 to 25 students, the experienced lecturer can conduct a class in the form of a discussion where he can involve everyone. In larger classes, consequently, of more than 30 students, this form does not work at all, since the lecturer loses the ability to track the performance and activity of each listener.

The technique of peer evaluation besides the classic method, which makes it possible to achieve absolute anonymity in the process of evaluating students' work by the students themselves and promotes student-instructor interaction is Classroom Response System (CRS), or sometimes it is called Student Response System (SRS), or less popular Audience Response System, Personal Response System, etc. [5]. The significance of CRS is that it allows students to answer questions and get instant feedback in classes. Thus, it helps boosting active learning through peer instruction.

The work of this system in general and the way it affects evaluation has extensively been used in Eric Mazur's practice - a physics professor in Harvard University. He described his use of

classroom response systems to alleviate peer instruction, thus, he set the question to his students who discussed it in pairs and submitted their responses using "clickers". His practice showed that it is a great way to involve students to class discussion and at the same time, provide information about efficacy of their comprehension of the new topic [1].

Firstly, the instructor formulates multiple-choice questions to the students via computer projector, then the students submit their answers to the question using the clicker (handled transmitter) that beams a radio-frequency signal to a receiver attached to the teacher's computer. Finally, the software on the instructor's computer gathers all the students' responses and generates a bar chart showing how many students selected each of the answer choices [5].

Among the primary advantages of peer response is that it increases the courage in writing and gives students confidence because writing for the "audience" motivates them much. However, the experiments also show that in many cases assessment depends on the interpersonal relationships between the group members. Two peer reviews are never evaluated in the same manner, there is always a dissimilarity among those involved on both sides of peer evaluation process, depending on very diverse factors [3]. In most groups peer review is viewed as a personal insult, thence avoiding to damage relations between each other, the students artificially increase the results, accordingly, their assessment does not always reflect the genuine grade of their work. Therefore, the practice shows that peer evaluation requires honesty, fairness and responsibility from students the lack of which occasionally appears to be evident.

The instructor's supervision is significant especially at an early stage, since the students have to be recommended how, what, even when to correct their peers' mistakes. In some cases there may arise intuitive correction i.e. correction based on the feeling accepted to be true as a result of unconscious reasoning. At this point the student has to be given the explanation of the rule in order to avoid uncertainty. Correction can be divided into several groups, namely grammar, spelling, vocabulary, structure. Here the students can be suggested to apply teachers methods of correction, even by using the abbreviations. i.e. they can mention precisely what was wrong in verb form (vb), tense (t), coherence, (coh), spelling (sp), article (art), ambiguity (amb), word order (wo), etc., [10]. Word order is especially challenging as far as in the Azerbaijani language the word order is compiled in such a way that the subject of the sentence stands at the beginning of the sentence, while the place of the predicate is mainly at the very end of the sentence. The position of all the secondary members of the sentence is between principle parts of the sentence i.e. subject and predicate. Thus translating a sentence from the native language into English orally, one must wait for the whole sentence to be completed in order to place the predicate in its second position in English. Thus this type of correction will allow the instructor to individually investigate each student's strengths and weaknesses, since some students can be good at grammar, while others at vocabulary, etc.

During speech error correction while listening to one another students take notes and by the end of the speech the liveliest stage commences. The more the number of mistakes the greater is the deal of correctors. Consequently, the student who differs from others according to the amount of corrections or the ability to find a rare error may be awarded with surplus bonus. A significant point to be taken into consideration is the individuality of each student. It is appropriate to find out in advance whether the students prefer to be corrected while speaking or after the completion of their speech.

Methods of teaching do not appreciate student speech interruption. However, occasionally a few students request the instructors to correct them the moment they make a mistake. In this case the student can instantly be corrected, but error explanation can be followed by the end of speech in order not to draw students' attention off the main topic.

In rather rare cases students may intimidate making speech in front of the audience, consequently their participation at group discussion is lacking as well. In that case their request should be accepted with understanding. They would preferably be individually corrected and listened to. This intimidation can successfully be avoided via gradual involvement of such kind of students in various activities.

Another ludicrous case with students having scanty experience in this activity may occasionally occur when they try to "correct" he right statement. To ease bewilderment having firstly checked students' awareness of the matter, i.e. asking the learners whether any of them can guess the wrong correction, the instructor's interference becomes unavoidable.

Any correction of the mistake being reluctantly welcomed is usually accepted with a sense of disfavor. Peer correction in speaking activity is no exception. Thus, the CRS system is used to achieve absolute anonymity in the process of assessing students' knowledge by the students themselves. This technology is likely to significantly raise the student interest in class. Moreover, thoughtfully composed questions will boost discussions. As mentioned above, there are specifically designed devices to use the CRS systems, however due to their high cost, some alternative systems based on the use of generic electronic devices have been found. Rosario I. Herrada et al [6] presented a study with examples of software tools, like for instance Socrative, Kahoot, NetClick, etc. that implement SRSs in fast and easy way. There was also a suggestion of implementing CRS through social media like Twitter, etc. [6] Another author who deployed "uReply" app in his work has step-by-step shown how the system works while teaching in class. The instructor asks a question using his own device while students enter their answers from their own devices- mobile phones, tables, laptops, etc. A great system that both instructors and students can access with their own IDs. [7] Since CRS allows students to answer the questions and get immediate feedback, it thus, helps promote active learning through peer instruction. The students have an opportunity to debate, discuss and learn from each other in large classes, which is a significant advantage in favor of CRS.

However, there are opposers of CRS as well. The experiment held among the students in Ushinsky South Ukrainian National Pedagogical University showed that the students who evaluated the performance of their groupmates and the groupmates who performed had twofold opinions about the CRS.[8] Thus, 60 percent of the class, defined Clicker as reliable and trustworthy, meanwhile the other 40% measured it as unfair and biased. According to students, it is inequitable to ruin the work of the performing student in one fell swoop. Moreover, the opponents of CRS argue that once filling the questionnaire on paper, the evaluator would think twice and may change his notes, which is impossible in Clicker.[8] The impact of peer evaluation, its pros and cons as well as students' attitude towards the use of Student Response System (SRS) in academic life and how much it would correspond instructor's expectations have also been investigated, since SRS is one of the most effective ways to achieve total effect not only in peer evaluation but in student activity as well.

The examples above show that the devices and applications of using CRS in classrooms may differ nowadays, since the technology keeps changing all the time. If some twenty years ago it was possible to control the system through clicker devices only, nowadays it can be done through different applications. Consequently the effectiveness of CRS in peer evaluation will obviously depend upon the teaching method of instructor, i.e. the questions and tasks compiled by instructor.

Eric Mazur's practice has appeared and proved to be rather effective especially nowadays. Since the whole world proceeded to on-line way of education in order to preserve interactivity this method may successfully be applied through using a "raise your hand" function. Students may simultaneously raise their "hands" this way displaying their readiness for the reply. The instructor in his turn will randomly be able to choose the one who is the first to answer. This method has proved to be effective due to the reason that when the students switch their microphones on all together, they unintentionally make noise which obviously leads to hubbub and confusion. Another way of avoiding the misunderstanding in defining the winners is using the feature of the "chat box", where the students can write their answers which will instantly appear on the screen and everyone will see the winners. "Share" function can be used by the students as well in case they have to answer a question in the written form, which may consist of a single word. A phrase, a sentence, up to a whole essay.

To encourage for active participation students can be awarded with additional bonus for every single correction, which will earn them points increasing their final results. The efficiency of this method increases if the students are beforehand announced that their correction by no means will influence the instructor's decision. For certainty the instructor may declare the student's mark before the correction stage starts. This method has proved to be a motivating and encouraging one, since the student interactivity significantly grew, the number of mistakes decreased and learners stopped making the same mistakes. It contributed to the profound development of the skills like listening, taking notes, speaking, expressing critical opinion, etc.

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