

## Voting System as Potential Tool for Automated Patient Education

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**Abstract:** A Student Response System (SRS), frequently referred to as a “clicker,” and it facilitates students to individually respond instructor’s questions on immediate basis with individual mobile devices. The system also displays the collective responses as feedback to the class at the instructor’s judgment. The responses can also be provided by the students online by opening the link forwarded by instructors through SMS and all these responses are recorded into the database and a graphical report is prepared based on these responses received from the students. While SRSs have been used in teaching for some time, we recognize the adoption rate in pharmaconosy classes as still being reasonably low. This paper is a “how to” and “why” guide for pharmaconosy faculty who are taking into consideration using SRSs and for skilled users who look for refining or expanding their SRS use. We briefly do analysis key features of present technology choices for SRS that can make easy both casual tests and more challenging uses. We then evaluate and produce the related experiment on SRSs and find obvious facts of student satisfaction and meeting, but support for only small developments in learning and antecedent behaviors. We use the existing research on SRSs, combined with our collective 18 years of experience with this technology to provide an educator’s “how to” for using an SRS in conjunction with teaching accounting. We cover such issues as how many questions to ask, when to ask them, how to grade them, sources of questions and the issue of cheating. We conclude by suggesting opportunities for future research.

**Key words:** Student Response System (SRS) • SMS • Learning development

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### INTRODUCTION

SRSs consist of response and software that make possible questions to be posed, responded, aggregated, exhibited and/or stored. Fig. 1 provides a picture of a SRS edge as it would come into view for the students and an aggregated response graph. Fig 2 depicts the outcome for student appeared for test through SRS that consist of learning institutions. There are a lot of merchants that are further targeted on technology proposed for business clients. Our SRS system often updates the database for investigations to improve their utilities and to sustain with competitors’ products. The most topical appearances of SRSs apply telephony or Internet technology but not restricted up to this area. Telephony-based SRSs permit students to be appropriate accepted mobile phones for fling the answers for questions inserted in SRS system for each class with respect to the student’s subjects or class category.

Internet-based SRSs would world with students to keep on with the smart phones, laptops or computers to provide answers for inquired questions utilizing a web page. In any case one vendor brings a corresponding telephony and Internet-based approach up to the stage and via these technique students can either text answer with usual cell phones, or by smart phones or computers and responses can be captured via a web page.

The main three plunder to the Internet/telephony-based SRS advance - First, the figure of parallel answers is mainly limitless, affected sufficient bandwidth to the receiving PC.

Second, the detachment between the recipient and the spreader should not be more means that scholars could correctly be on the other side of the world and enclose responses to questions received. Third, Internet and telephony-based SRSs can be utilized for both conventional in-class learning and distant learning.



Fig. 1:



Fig. 2:

When Understanding for synchronous distant learning, the trainer could produce questions, suggest students to get in touch with this and getting back responses from the students based on their user id and then gossip about the combined responses as necessary.

Our developed SRS system has lots of features for admin as well as for the students contributed for test with respect to their subject and subject's instructor. Fig. 1 gives the screen for admin who can make the settings for test and questions. Fig. 2 provides the structure for student's result appeared for the test.

**Student Involvement and Dedication:** Contribution is frequently included as a part of class discussion [1] and for our thoughts consist of students either responding or hoisting questions. Student participation in a plan way is described in [2] as containing students' expression, disturbing, behavioral and cognitive association in education behaviors. Student's participation could thus also be taken as one aspect of student involvement. Previous research offers that students who are more involved and who join in more in class should learn more [1, 3]. However, there is miscellaneous proof on the

outcome of SRSs on enhancement participation or engagement.

Those getting a positive contact of an SRS on receiving involved include [3], applying SRS, improved the replying of questions by undergraduate students in an introductory course with respect to hand raising or response-card techniques. [4, 5] also report enhanced in self-reported commitment for undergraduate students enrolled in a multiplicity of programs correspondingly. [6] Report alike decision in their analysis of the literature. Causes for the augmented feelings of contribution and meeting differ, but include providing a transform of speed from the talk and providing a chance to lecture to peers [4]; bigger cognitive association, the chance for physical action and the chance for self-assessment [7] and better attention in the subject under conversation [6]

Those decision either no collision or a negative contact of SRS use, take account of [8] who describe no dissimilarities in self-reported gathering among undergraduate students captivating introductory course and [9] who found that utilize of an SRS condensed the possibility of undergraduate accounting students enrolled in preliminary decision-making accounting orally asking or answering questions (as opposed to answering via the SRS), mainly when the combined student's answer graph recommended that the bulk of students had correctly replied a question. [10] noticed a obvious difference between undergraduate preliminary decision-making and intermediate financial accounting student self-reports (where students pointed out SRS utilize made contribution more relaxed and enhanced class conversation) and observational data (which demonstrated either a modest boost or no increase in contribution when an SRS was used to inquire a conversation question at the start of each lecture).

In review, the previous research findings recommend that if increased contribution and engagement is preferred from SRS use, factors that may be significant consist of:

- Mixing together the SRS questions all through the class;
- Providing a chance for peer conversation in replying the SRS questions;
- Permitting for elasticity and diversity in the teacher questions and behavior used to investigate the SRS responses;
- Showing the aggregated answers graph as shown in figure 2;
- Guarantee SRS questions are satisfactorily hard that those who obtain the questions incorrect are not part of a small alternative.

**Student Satisfaction and Enjoyment:** SRS studies in all-purpose find that students take pleasure in the use of SRS technology and description either more fulfillment or greater satisfaction for lessons using SRS technology. For instance, [11] in a preliminary accounting framework, [3] in a preliminary psychology framework, [5] in a universal university framework with both Master's and undergraduate lessons and [12] in an undergraduate MIS framework all report enhancements in student gratification of or fulfillment with lessons using SRSs, comparative to non-SRS-using lessons.

However, [6] also note down that the majority lessons also details a small minority of learners, generally 7% or less, who did not take pleasure in the technology. A research of this concern by [13] in the framework of big undergraduate classes in different subjects to come across that the students who are mainly optimistic about SRSs are those who self-report as significance opinion, those who do not significance a conventional instruct style and those who desire to be busy in a big class. Students showed important difference on all of these scopes in their sample. Trees and Jackson also find that students were liable to be negative towards SRS utilize if their use did not revolutionize what happened in the classroom, i.e. when the teacher did not illuminate or expend more time on objects in conditions where SRS answers pointed out important student confusion. We wind up from these results that a good realization of an SRS is expected to outcome in student satisfaction of the technology, but trainers should imagine a small marginal of students who do not like it's utilize. Student's response may be enhanced by clearing up the worth of interactive knowledge and by teachers who transform the lecture substance in answer to what the aggregated SRS reply point out about student understanding.

**Improved Instructor Performance:** SRSs can be utilized for influential evaluation, in other words to find out what students do and do not recognize so that teachers can regulate their education plans. Receiving instantaneous opinion from students on the subject of what matter is puzzling may facilitate teachers to make improved utilize of class time by targeting on the subjects where students are under pressure. Research results related to enhancement in teacher performance from SRS utilize are miscellaneous. In a topical revision [14] found that undergraduate accounting students in an preliminary managerial accounting lessons using an SRS supposed their teacher to be more well-organized and efficient than students in a non-SRS utilization control group [11]. Learning in which SRS replies composed over the lessons

of both undergraduate instructs and labs were utilized by preliminary accounting instructors to find out which material was additional reviewed in the identical lecture or lab. However, they found no important enhancement in student assessment performance, relative to students intriguing the lessons in other semesters who did not utilize SRSs.

We wrap up that while via SRS criticism to find out topics that require further conversation or explanation should be supportive and may be supposed as pleasing by students, proof that dressmaking classes in reply to reaction improves teacher performance is still missing. Further research is desired on utilize of SRS opinion to get better instructor performance.

**Guidance and Challenges in Using Srs:** Most likely the major confront for efficiently implementing SRSs is the time and effort needed to restructure courses and develop appropriate, composite questions. With existing commercial systems means emergent various questions with a suitable array of choices perfectly, many of the multiple-choice questions speak to bottomless learning and consist of response choices that make available diagnostic in sequence about students' opinion and way of thinking (e.g., lack of previous information, incomplete way of thinking or faulty endings).

The investigation on SRSs has created detailed pedagogical proposals which are in line with the educational objectives renowned above. First, trainers should raise questions that are suitably demanding and need thoughts skills beyond just recollection information. Second, students' problems or even students' answers to trainer questions can efficiently serve as the roadmap for training. As [15] remarks, unless we take gravely what a student previously knows, education turns out to be very hard. Students' questions and, in various cases, their wrong answers, can supply this information. Utilizing SRSs to study students' views and gather information about what students recognize needs trainer to regulate the way they connect students. Agile education [16] and just-in-time-teaching [17] substitute the specific PowerPoint presentation and lecture in the pattern transfer from teaching to learning.

Faculty frequently observes that via SRSs consequences in wrapping less material [17]. Yet, the possible of deeper knowledge as a consequence of summary coverage is in line with educational guidelines which describe for highlighting Big Ideas rather than exposure [18]. Covering less while training more efficiently is certainly satisfactory when there is clear evidence that education has increased Expenditure of the technology

for students to utilize a SRS, whether clickers, PDAs, or hand-held computers, generally is accepted by students. As such, they must be influenced that the cost is significance the advantage. Some workbook companies present clickers at a reduced price when faculty accepts their manuals. Also, if a clicker is utilized in several classes, students will further likely admit the additional cost. And, as with every technology, improved support is required because technical glitches are to be projected. Some students will not remember to carry their clickers to class or misplace them resultant in lost time and probable frustration [19]. SRS technology suggests great guarantee for engaging students and encouraging learning, but only if we employ this tool via sound instructive principles to endorse learning that will be important to students in the opportunity. Although the glass is only half-full, it is still being full as researchers contribute to new classroom applications for this talented tool that are based on sound instructive practices.

## CONCLUSION

Both student-response systems and new classroom-network technology stand for efforts to offer instructors with tools to control and fine-tune their teaching as it is telling in the classrooms. While these systems are fewer ordinary than predictable IMS (which teachers employ for development in advance of preliminary the next unit of teaching) student-response systems and classroom networks characterize a significant stroke of research and development. This line of research and development forefronts the educator as an intellectual and choice maker tasked with resolving complex tribulations on the spot. As our sympathetic of teachers as instructional choice makers and managers intensify, the information of technology necessities to support teachers in this role is expected to increase.

One area of likely future growth would enlarge the present potentials of both student-response systems and classroom networks. Specifically, both might be incorporated into classroom management and SRS. Such incorporation would give a better-off picture of student realization and credentials of students' instructional knowledge to stakeholders in the instructive system. Other promising extensions consist of the use of handheld technology to maintain combination and alignment of individuals who are mainly possible to be intelligent to study from one another or to do well in an exacting task. The obligation could be supported on data accessible through the system on universal abilities, or it could be based upon data exacting to the topic at hand.

Finally, more research and enlargement into the variety of exhibits and response that are willingly interpretable by instructors as they work and also after class can enlarge the usefulness of systems for assessing teaching and development for prospect lessons. It is important that research aimed at estimating the belongings of presently accessible technologies is implemented.

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