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## FEATURE

# Developing Nursing Student Communication and Teamwork Skills: Automating Peer Assessment

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Clinical skills form the core of nursing practice while soft skills such as leadership, collaboration, and communication help shape the quality of care and patient satisfaction (Kroning, 2015). Nursing practice in turn informs nursing education, encouraging schools to develop a balance between these clinical and soft skills. The goal is to prepare nurses to collaborate within and across disciplines to promote patient safety and community health.

Salas related teamwork directly to patient safety, stating "team training and teamwork must be part of the DNA of healthcare" (Salas, 2008 as cited in Lerner, Magrane, & Friedman, 2009, p.328). For example, teamwork issues can contribute to mistakes that happen during shift transitions (Halm, 2013; American Academy of Pediatrics Committee on Pediatric Emergency Medicine, American College of Emergency Physicians Pediatric Emergency Medicine Committee, Emergency Nurses Association Pediatric Committee, 2016). Manser (2009) reviewed various studies of incident, malpractice, and adverse event reports, concluding, "... communication and teamwork issues [are] among the most frequent contributory factors (i.e. in 22–32% of reports)." (p.145).

Various studies have linked interprofessional communication and teamwork problems to poor patient outcomes (Freytag, Stroben, Hautz, Eisenmann, & Kämmer, 2017; Thistlethwaite, 2012). When colleagues from varied disciplines and backgrounds work together, timely and constructive peer feedback is critical to enable the team to adjust and improve (Freytag et al., 2017). Structured team communication also helps promote equal responsibility among team members, an important detail of collaborative decision-making in interprofessional teams (Allport, 1954).

Hattie and Timperley (2007) suggest, "Feedback is among the most critical influences on student learning." By implementing timely and constructive feedback in nursing curricula,

educators can prepare nurses to be effective team members before they enter the healthcare industry. In particular, peer feedback can help students develop clinical, collaboration, communication, and leadership skills (Lerner et al., 2009; Allport, 1954).

Peer assessment has been a teaching tool used for many years. It is frequently used in interprofessional projects with nursing and business students at Boise State University (Poole, Walters, and Fairbanks, 2019). Students are asked to assess their team members' (and their own) participation and contribution behaviors, using open and closed questions, and provide

Although team engagement is an immediate benefit, logistical obstacles can impede more substantial student learning. When students complete peer assessments via paper or email, the instructor is tasked with processing the feedback into meaningful information. Given the time and effort required, instructors often take two shortcuts. First, they conduct an assessment only once, after the project is over. Second, they assign a grade but provide little or no formative feedback to the individual student to improve their teamwork skills. These shortcuts interfere with the impact timely feedback can have on learning, as discussed by Hattie and Timperley (2007), dramatically reducing long-term benefits for student growth.

Brutus and Donia's (2010) study explored the longer-term learning effects of peer assessments, but with a twist. An automated system enabled instructors to quickly return formative peer feedback to students. They used the system in two consecutive required classes involving group projects. Some students took a team peer assessment, receiving feedback, in both classes; the rest did so only in the second class. Brutus and Donia (2010) found that students who received repeated feedback performed better in the second project than those receiving it only once. In this study, repeated peer feedback helped students improve their team behaviors.

A new cloud-based tool called PeerAssessment. com (https://peerassessment.com) automates the peer assessment process, making it easier to provide that repeated, periodic feedback (Anson & Goodman, 2014). Its goals align with the Brutus and Donia (2010) system, providing feedback to students and assisting the instructor, but additional features enhance its ease of use, efficiency, and flexibility. It takes less than five minutes to set up a team assessment, and the tool does the rest: launching the assessment, sending reminders, distributing personalized feedback to students, and calculating individual scores.

Tools like PeerAssessment.com make it practical for an instructor to put students back at the center of peer assessment. Periodic assessments, while the project progresses, provide timely feedback for individuals and teams to self-correct and grow. Challenges faced by interprofessional teams, including workflow, distribution of responsibility, and scheduling (Thistlethwaite, 2012) can be examined more closely. In an academic environment, instructors can tie peer assessment to a final grade so that students have an additional investment in learning how to contribute effectively.

At Boise State University, we used Peerassessment.com to conduct assessments during our interprofessional education project, in which nursing and business students work together on a large healthcare industry issue (Poole, Walters, & Fairbanks, 2019). After introducing the project itself, we orient students to PeerAssessment.com and its rationale, emphasizing the value of specific and meaningful feedback to help students learn and improve their teamwork. Mid-project feedback allows students and teams to apply what they learn to the next phase of their work. When the project ends, each student receives a grade proportionate to the final feedback from their peer-assessed contributions to the team.

Team-based projects help students improve collaboration, communication, and leadership skills, which are linked to improved patient outcomes. By incorporating this new style of peer feedback, we can prepare new nurses to work and communicate effectively as a team, improving the quality of care and patient satisfaction (Lerner, et al., 2009).

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