The Use of Formative Evaluations in the Online Course Setting

JENNIFER PETERSON, MS, RHIA, CTR
DEPARTMENT OF HEALTH SCIENCES
Course Evaluation in the Online Setting

- **Goals**
  - Improve course
  - Assess/increase student learning

- **Traditional Methods**
  - Student assessments
  - Summative course evaluations

- **Formative Evaluations**
  - Continuous Improvement
  - Benefit to current as well as future students
Problems with Traditional Evaluation Techniques in Online Courses

- No agreement on best method
- Need different techniques
- Difficulty adequately measuring quality online teaching
- Summative evaluations
  - Focus on promotion and tenure
  - May not be used to improve course or teaching
  - Don’t benefit current students
  - Popularity contest
- Course may be designed by one faculty and taught by another
Value of Formative Evaluations in Online Courses

- Completed during or throughout the course
- Immediate feedback
- Gives feedback to instructor lacking face-to-face interaction
- Provides ability to change course at the current time
- Creates feedback loop for continuous improvement
- Increases student participation
- Encourages student self-evaluation
Use of Formative Evaluation Information

- Questions to Ask:
  - Students’ perceptions of activities, pace, student engagement
  - Pertinent to both students and instructor
- Use feedback to make changes
  - Fairly immediate feedback allows for changes during course
  - Improvements increase student involvement and motivation
Methods of Formative Evaluation

- Formal peer evaluations
- Short student surveys
- eFACT: Formative Assessment of Classroom Teaching for Online Courses
- Modified Face-to-Face Group Instructional Feedback Evaluation Techniques
- Surveys through commercial software or course software
Case Study: Medical Terminology – Course Design

- Course offered online for 15 years; currently online only
- Open only to specific majors; freshman through last semester seniors
- Unknown prior student online course or ReggieNet experience
- Evaluation done Summer of 2014
- 28 students in course
- 2 evaluations done – midpoint, final week of course; extra credit given
- Student grades at midterm and final also compared
Case Study: Medical Terminology – First Evaluation

- On-line minute paper
- Four questions
  - Name two things about this course that you feel are helpful to your learning medical terminology.
  - Name two things about this course that you feel are barriers to your learning medical terminology.
  - Name one thing the instructor could do to better assist you with learning medical terminology in this course.
  - Name one that that you could do to better assist you in learning medical terminology.
- Answers analyzed and changes made (21/28 responded)
Case Study: Medical Terminology – Second Evaluation

- On-line minute paper
- Three questions
  - Did you utilize the discussion boards, office hours, or email tips implemented? If yes, what tool(s) did you use?
  - If yes, how did you find this to be helpful in your learning of medical terminology?
  - If no, why not?
- Answers analyzed, success of changes assessed, and changes made for future classes (19/28 responded)
Case Study: Pathophysiology I – Course Design

- Offered online for first time Fall 2014
- Early major course; junior students
- Content-heavy course; fundamental to Health Information Management
- Offered online due to staffing issues; adjunct instructor taught “canned” class
- 27 students
- Unknown student experience with online courses; familiar with ReggieNet
- 2 formative evaluations; after first exam, after third exam; extra credit given
Case Study: Pathophysiology I – First Evaluation

- On-line student survey
- Three questions
  - For you personally, what has been the most difficult part of the course material so far?
  - What was the most difficult part of the first exam?
  - What can we do to improve learning outcomes?
- Answers analyzed and changes made (23/27 responded)
Case Study: Pathophysiology I – Second Evaluation

- On-line survey
- Six questions
  - What changes that have been made to the course have you used or taken advantage of?
  - If you used any of these changes, how have they helped your learning?
  - What changes have you made in your test preparation methods?
  - How have these changes that you have made helped you?
  - What areas of the course do you still find difficult?
  - What additional changes would you recommend to facilitate your learning?
- Answers analyzed and changes made (23/27 responded)
Results – Medical Terminology – First Evaluation

- Overall positive responses
- Barriers to learning
  - Online course
  - No lectures/discussions in class
  - No peer interactions
  - Harder to ask questions
  - Technology concerns
  - Fast pace in summer/large amount of material
Results – Medical Terminology – First Evaluation

- What could instructor do?
  - More assignments
  - More discussions
  - On-campus office hours
  - Weekly emails
  - Many stated nothing

- What could students do?
  - Stop procrastinating
  - Time organization
  - Study differently
Interventions for Medical Terminology

- After first evaluation:
  - Discussion board added
  - Two hours of on-campus office hours/week
  - Weekly email

- Email sent to students
  - Changes
  - Recommendations for success
  - Comments on fast pace and technology concerns
  - Encouragement of email questions
Results – Medical Terminology – Second Evaluation

- No students used discussion boards or office hours
- 5/19 – email tips
- 4/5 found email tips helpful
- 14/19 stated satisfied with study habits/grades so didn’t use
  - 2 stated not close to campus so office hours not an option
- Student grades improved in second half of course after changes made
Results – Pathophysiology I – First Evaluation

- Students unhappy with
  - Online course format
  - Communication
  - Feeling of “teaching themselves”
  - Inability to assess own learning prior to exam

- Suggestions
  - More activities, quizzes, or practice exams
  - Face-to-face exam preparation sessions
  - Additional communication
Interventions for Pathophysiology I

- Weekly face-to-face sessions added
- Assignments added for student assessment of learning
Results – Pathophysiology I – Second Evaluation

- Improved student satisfaction
- 59% attended review sessions; 82% completed added assignments
- Ability to ask questions in person noted to be helpful
- Students revised test preparation methods – felt more prepared
- Still found some areas difficult
  - Exam format
  - Large amount of information
  - Lack of face-to-face course
  - Time allotment for exams
- Student grades improved after changes made
Discussion

- Information used by instructors, department chair, other stakeholders
- Medical Terminology
  - Positive feedback
  - Course improvements made in summer course as well as future courses
  - Long term plans to add audio for pronunciation, additional assignments, including study suggestions in initial course email
- Pathophysiology
  - Changes made during course resulted in increased student satisfaction
  - Course changed back to an on-campus course
  - Ideas for future online course development
Conclusions

- At ISU:
  - Medical Terminology – always room for improvement
  - Pathophysiology – deeper understand of online course needs
  - Both classes –
    - Student expressed appreciation that their opinions sought, changes made based on input
    - Student role in success increased

- Formative Evaluation
  - Meets need for accountability
  - Student participation increases
  - Changes can be made in current class to benefit current students