

# Online Feedback: What do Students Like?

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# Reality Check

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## Electronic submissions

- completely online
- blended approach
- ordinary
- reasonable choices

## Most of the online assignment systems

- the simple uploading
- automated/correcting function

## Deepened learning from feedback/individualized teaching

## Limited research

- students' views of e-feedback on submissions

# Study

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## Exploratory survey

- What their perceptions on e-feedback
- five categories
  - *accessibility,*
  - *timeliness,*
  - *legibility,*
  - *quality and*
  - *personal*
- Online feedback (e-feedback) vs. hand-written

# Research Questions

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Do students support e-feedback or handwritten feedback?

What are students' perceptions of e-feedback in regards to the five themes: *accessibility, timeliness, legibility, quality and personal*?

# Literature Review

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## Accessibility

- a general expectation of students in the millennial generation
- a most recognized component in defining useful feedback

G. Morrissey, M. Coolican, and D. Wolfgang, "An intersection of interests: The millennial generation and an alternative world language teacher education program. Paper presented at the American Educational Research Association Annual Conference New Orleans, LA, 2011.

N. Di Costa, "Feedback on Feedback: Student and academic perceptions, expectations and practices within an undergraduate Pharmacy course." Paper presented at the ATN Assessment Conference 2010 University of Technology Sydney, 2010.

# Literature Review

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## Timeliness

- Preferred
- Would move on if it's late
- Bridge et. Surveyed: 88% of the students favored online feedback vs. hand delivered feedback

P. Ferguson, "Student perceptions of quality feedback in teacher education." *Assessment & Evaluation in Higher Education*, vol. 36, pp. 51-62, 2011.

N. Chang, G. Watson, M. Bakerson, E. Williams, F. McGoron, and B. Spitzer, "Electronic feedback or handwritten feedback: What do undergraduate students prefer and why?" *Journal of Scholarship of Teaching with Technology*, vol 1, 1-23, 2012.

P. Denton, J. Madden, M. Roberts, and P. Rowe, "Students' response to traditional and computer-assisted formative feedback: A comparative case study," *British Journal of Educational Technology*, vol. 39, pp. 486-500, 2008.

P. Bridge, and R. Appleyard, "A comparison of electronic and paper-based assignment submission and feedback." *British Journal of Educational Technology*, vol 39, pp. 644-650, 2008.

# Literature Review

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## Legibility

- Readable when typed
- A significant element
- Illegible writing: Frustrated and disappointed

P. Ferguson, "Student perceptions of quality feedback in teacher education." *Assessment & Evaluation in Higher Education*, vol. 36, pp. 51-62, 2011.

M. Price, K. Handley, J. Millar, and B. O'Donovan, "Feedback: All that effort, but what is the effect?" *Assessment & Evaluation in Higher Education*, vol 35, pp. 277-289, 2010.

N. Chang, G. Watson, M. Bakerson, E. Williams, F. McGoron, and B. Spitzer, "Electronic feedback or handwritten feedback: What do undergraduate students prefer and why?" *Journal of Scholarship of Teaching with Technology*, vol 1, 1-23, 2012.

# Literature Review

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## Quality

- A big concern: poor and low quality feedback
- In course evaluation
- Quality—constructive and helpful
- Quality—easy to understand
- Quality—where and how to improve
- Would wait if feedback is in good quality

S. Case, "Reconfiguring and realigning the assessment feedback processes for an undergraduate criminology degree." *Assessment & Evaluation in Higher Education*, vol. 32, pp. 285-299, 2007.

Y. Yang, and V. Durrington, "Investigation of students' perceptions of online course quality. *International Journal on E-Learning*," vol. 9, pp. 341-361, 2010.

N. Chang, "Pre-Service teachers' views: How did e-feedback through assessment facilitate their learning?" *Journal of the Scholarship of Teaching and Learning*, vol. 11, pp. 16-33, 2011.

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# Literature Review

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## Personal

- Useful to students
- Desired to receive positive and personal feedback
- Personal feedback—
  - mild tone vs. harsh or negative one,
  - polite vs. disrespectful
- Showing care

10. Kwan, and S. Cook, "Reflection in example- and problem-based learning: Effects of reflection prompts, feedback and cooperative learning" *Evaluation & Research in Education*, vol. 24, pp. 255-272, 2010.

11. Ferguson, "Student perceptions of quality feedback in teacher education" *Assessment & Evaluation in Higher Education*, vol. 36, pp. 51-62, 2011.

12. Cheng, G. Watson, M. Johnson, C. Williams, J. Anderson, and S. Quinn, "Electronic feedback or handwritten feedback: what do undergraduate students prefer and why?" *Journal of Knowledge of Teaching with Technology*, vol. 1, 1-23, 2013.

# Participants and Setting

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7,200 undergraduate students at a Midwestern university

# Data Collection

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## The online survey

- hosted on Survey Monkey
- based on the five themes :
  - *accessibility,*
  - *timeliness,*
  - *legibility,*
  - *quality, and*
  - *personal*
- a few corresponding items, on a 7 point Likert scale, under each of the themes
  - e.g. four factors under the theme of *accessibility*:
    - *(a) allows me to get information easily,*
    - *(b) allows me to receive and send information conveniently,*
    - *(c) allows me to ask questions easily*
    - *(d) makes me feel secure to receive feedback from the professor.*

# Procedure

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the Institutional Review Board approval,

the survey link sent out to the undergraduate students ,

- first prompted with a study information sheet,
  - the purpose of the study,
  - ensured confidentiality,
  - voluntary participation.
- Complete the survey

a first follow-up letter electronically sent two weeks later,

a second follow-up letter sent two weeks later,

the study closed up two weeks later.

# Data Analysis

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First research question: “Do students support e-feedback or handwritten feedback?”

Second research question: “What are students’ perceptions of e-feedback in regards to the five themes: *accessibility, timeliness, legibility, quality and personal?*”

- SPSS 20
- nonparametric and parametric tests
- A Chi-square test of independence
- Independent t-tests
- All students’ justifications or preferences for e-feedback

Bakerson, “Persistence and success: A study of cognitive, social, and institutional factors related to retention of Kalamazoo promise recipients at western Michigan university.” Proquest Dissertations & Theses Database: A&I. . Western Michigan University, United States, 2009.

K. M. Rosenberg, “The excel statistics companion.” Belmont, CA: Thomson Higher Education, 2007.

J. P. Stevenson, “Applied multivariate statistics for the social sciences” (5th ed.). New York, NY: Routledge, 2007.

# Results and Discussion

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The first research question: “Do students support e-feedback or handwritten feedback?”

- 763 undergraduate students responded, with a return rate of almost 11%.
- The majority of the participants (n=476, 63.3%) supported e-feedback.
- The studies conducted by Denton, Parkin, Chang et al. yielded similar findings.
- T-test compared how much preference for handwritten and e-feedback based on choice of feedback (see Table 1).

# Table 1

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COMPARING PREFERENCE FOR HANDWRITTEN AND E-FEEDBACK FEEDBACK						
	n	Mean	SD	t	df	p
Handwritten	274	4.33	0.921.39	29.33	748	0.00
E-feedback	476	1.86	0.92			

# Results and Discussion cont.

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The second research question: “What are students’ perceptions of e-feedback in regards to the five themes: *accessibility, timeliness, legibility, quality and personal?*”

Each of the themes reported as follows:

# Accessibility

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Four factors under the theme of *accessibility*, the majority of which were supported:

- (a) *[E-feedback] allows me to get information easily* (n=468; mean=1.511; SD=0.773),
- (b) *[E-feedback] allows me to receive and send information conveniently* (n=466; mean=1.280; SD=0.703),
- (c) *[E-feedback] allows me to ask questions easily* (n=467; mean=1.830; SD=1.164),
- (d) *[E-feedback] makes me feel secure to receive feedback from the professor* (n=464; mean=1.882; SD=1.167).

# Accessibility cont.

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## Justifications

- *(a) [E-feedback] allows me to get information easily:*
  - “I'm always online, always even on my phone so it makes things easier for me.”
  - “[N]o matter where you are, you usually have access to the internet therefore you can get it anywhere at any time.”
  - Denton, Parkin et al. found that technology enabled students to access their grades and feedback at a time and place of their choosing.
- *(b) [E-feedback] allows me to receive and send information conveniently:*
  - “Easily accessible as it only requires one or two clicks of the mouse.”
  - “Very helpful because I can log on whenever it is convenient for my schedule to check on things.”
- Chang et al. and Mertler et al. --- conveniently receiving and sending information
- Denton et al. and Parkin et al. --- students recognized and appreciated the flexibility and convenience that technology could provide in facilitating their learning

# Accessibility cont.

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- *(c) [E-feedback] allows me to ask questions easily*
  - This will be addressed in the section of Personal to avoid redundancy
- *(d) [E-feedback] felt secure to receive feedback from professors*
  - “I don't have to worry about losing it!”
  - “It's nice that you can always go back to refer to it when it's saved online.”

Positively preferred this theme, few other studies have examined it.  
Future research is warranted

# Timeliness

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One factor under the theme of *timeliness*:

- *(e) [E-feedback] allows me to receive feedback fast* (n=466; mean=1.504; SD=0.883).

Denton et al. and Chang et al. supported for fast and timely delivery

## Justification

- “...I don't have to wait a week to hear back on how well I did or what I need to improve on.”
- “If I receive feedback that is very late, I usually disregard it because it is irrelevant.”
- Parkin et al. ---if students did not receive feedback in time for it to be meaningful germane to a task assessed, the relevance of the feedback could thus be reduced.

# Legibility

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Two factors under the theme of *legibility*:

- *(f) [E-feedback] enables me to read the feedback* (n=463; mean=1.324; SD=0.788)
- *(g) [E-feedback] enables me to understand what the professor writes* (n=463; mean=1.495; SD=1.021).

## Justifications

- *(f) [E-feedback] enables me to read the feedback*
  - “Since it is typed, it is legible [,] their spelling and grammar is good at least.” “... electronic feedback wins in this category [legibility].”
  - A different view:
    - “You will always be able to read typed [feedback], but that doesn't matter if [it] is not necessarily comprehensible and more subject to misspellings.”
- *(g) [E-feedback] enables me to understand what the professor writes*
  - “[E-feedback] enables me to understand what the professor writes.”
  - “If the quality of what is written is high enough, student time to making out the writing is worth it.”

Denton et al. Parkin et al. ----likely to read or use feedback if typed

Johnson, Ferguson, Chang et al. --- tend to read typed feedback without difficulty.

*Different views, more research needs to be warranted.*

# Quality

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## Seven factors under the theme of *quality*: [E-feedback]

- (h) *[E-feedback] offers constructive criticism or comments* (n=464; mean=2.070; SD=1.180),
- (i) *[E-feedback] is helpful* (n=464; mean=1.819; SD=1.057),
- (j) *[E-feedback] allows me to understand the content of the professor's comment* (n=465; mean=2.039; SD=1.159),
- (k) *[E-feedback] allows for revisions and improvement* (n=460; mean=2.078; SD=1.148),
- (l) *[E-feedback] provides detailed information that I would like to know in text* (n=460; mean=2.174; SD=1.259),
- (m) *[E-feedback] provides detailed information that I would like to know at the end of paper* (n=457; mean=2.230; SD=1.310),
- (n) *[E-feedback] allows me to feel and touch the feedback, which is conducive to my reading and understanding* (n=456; mean=3.384; SD=1.943).

# Quality cont.

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## Justifications

- e-feedback was specific and offered useful explanations.
- “I've noticed that most of the electronic feedbacks are more in-depth in their explanations and reasons.”
- Parkin et al. --- online feedback was thoughtful.
  
- “The clarity I receive from electronic feedback has been better than written. I suspect that is because thoughts can be edited and organized in such a way that handwritten examples do not allow.”
- Parkin et al. --- technology could help organize and edit thoughts
  
- “Handwritten comments tend to be abbreviated more often and leaves you occasionally wondering if you missed something or if you correctly understand the abbreviations.”
  
  
- Chang and Chang et al. not found
- A further investigation ---warranted

# Personal

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Four factors under this theme, *[feedback]*

- (o) *[E-feedback] allows me to establish rapport with my professor* (n=458; mean=2.769; SD=1.647),
- (p) *[E-feedback] encourages me to read feedback* (n=458; mean=2.109; SD=1.280),
- (q) *[E-feedback] shows that the professor cares about me* (n=456; mean=2.540; SD=1.516)
- (r) *[E-feedback] makes me appreciate my professor's time and attention* (n=456; mean=2.318; SD=1.342).

# Personal cont.

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## Justifications

- “There seems to be a distance between you and the professor if all feedback is just electronic.”
- Ifenthaler --- Distance instructors from students psychologically
- “Electronic [feedback] is usually more of a summary...” “. . .they . . . just copy and paste a generic statement.”
- “If feedback is copied and pasted on a student’s assignment, the student would be made to “most feel as if I’m simply a part of a **mass email** that is sent out to a lot of students.”

## Personal cont.

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- “If feedback is handwritten, it would be difficult for instructors to “duplicate” it.”
- “I feel like an instructor is much less likely to copy and paste when the feedback is handwritten.”
- Chang et al. --- “. . . sometimes electronic feedback feels generic and impersonal.”

# Personal cont.

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## Supporting views

- “. . . e-feedback was “[m]ore one on one [in] the classroom,”
- “. . . was speaking directly to me.”
- “[m]ore personal.”
  
- Being personal motivates student learning
- More investigations into this aspect

# Personal cont.

- Careless, if e-feedback
- No face-to-face questions and answers, no feedback reading
- “[M]y professor does not get to know me this way . . . , if it can be all uniform and not unique to each student, the connection is not there so reading the “comments” is much less likely to happen.”
- “The personal relationship between a professor and myself is very important to me.”
- Di Costa --- students wanted instructors to consider their feelings; they wanted instructors to be empathetic and understandable.

# Educational Implications

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To genuinely facilitate student learning, instructors and administrators need to

- start contemplating how to compose/or develop and deliver feedback,
- bolster quality and personal attributes
- Rushoff --- “engage with students, consider their responses and offer individualized challenges”
- provide professional development training: “. . . Professor training would be very helpful.”

# Future Research

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## Comments useful and helpful

- Individualized teaching
- Effective teaching
- Advancing understanding
- Deepened learning

P. Denton, J. Madden, M. Roberts, and P. Rowe, "Students' response to traditional and computer-assisted formative feedback: A comparative case study," *British Journal of Educational Technology*, vol. 39, pp. 486-500, 2008.

W. Johnson, M. Stellmack, A. Barthel, "Format of instructor feedback on student writing assignments affects feedback quality and student performance," *Society for the Teaching Psychology*, vol. 46, pp. 16-21, 2019.

D. S. Ackerman and B. L. Gross, "Instructor feedback: How much do students really want?" *Journal of Marketing Education*, vol. 32, pp.172-181, 2012.

K. Matthews, T. Janicki, L. He, and Patterson, "Implementation of an automated grading system with an adaptive learning component to affect student feedback and response time.," *Journal of Information Systems Education*, vol. 23, pp. 71-83, 2012.

H. Parkin, S. Hepplestone, G. Holden, B. Irwin, and L. Thorpe, "A role for technology in enhancing students' engagement with feedback.," *Assessment & Evaluation in Higher Education*, vol. 37, pp. 963-973, 2012.

P. Ramsden, "Learning to teach in higher education" (2nd ed.). London: RoutledgeFalmer, 2003.

N. Chang, "The vital importance of faculty presence in an online learning environment.," In M. Khosrow-Pour (4th) *Encyclopedia of Information Science and Technology* (pp. 2661-26671). Hershey, PA: IGI Global, 2018.

# Future Research cont.

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**Why**

**What**

**When**

**How** e.g. email, Canvas, webs, Oncourse, phonestablet PC, iAnnotate PDF on iPad, VoiceThread, etc.

# How an example

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## Learning Management Systems in Higher Education

- General feedback

P. Denton, J. Madden, M. Roberts, and P. Rowe, "Students' response to traditional and computer-assisted formative feedback: A comparative case study," *British Journal of Educational Technology*, vol. 39, pp. 486-500, 2008.

N. Chang, "The vital importance of faculty presence in an online learning environment.," In M. Khosrow-Pour (4th) *Encyclopedia of Information Science and Technology* (pp. 2661-26671). Hershey, PA: IGI Global, 2018.

# Example LMS

The screenshot displays a web browser window with a dark theme. The address bar shows the URL: [https://iu.instructure.com/courses/1792925/gradebook/speed\\_grader?assignment\\_id=8791770&student\\_id=5995640](https://iu.instructure.com/courses/1792925/gradebook/speed_grader?assignment_id=8791770&student_id=5995640). The browser tabs include 'One.IU | All IU Campuses', 'My Perceptions of Me and My Family', 'Conversations', 'NIPSCO - Polarity Yahoo Search', and 'New Tab Search'. The LMS interface has a dark red header with the course title 'My Perceptions of Me and My Family' and the due date 'Due: Feb 15 at 12:45pm - SP19-SB-EDUC-E327-15782'. On the right side of the header, it shows '19/19 Graded', '71.93 / 75 (96%) Average', and '5/19'. The user's name 'Jewel Eyestone' is visible in the top right corner.

The main content area shows a submission for the assignment 'My Perceptions of Me and My Family' from 'Feb 12'. The submission details include:

- Submitted:** Feb 12 at 9:40am
- Submitted Files:** (click to load)  
Jewel-My Perceptions of me and my Family-2-5-2019.pptx
- Assessment:** Grade out of 75  
72.21
- Assignment Comments:** A text box containing the comment: 'Jewel, It was good. Keep it up! Dr. Chang'. A 'Submit' button is located to the right of the text box.
- Download Submission Comments:** A link to download the comments.

The Windows taskbar at the bottom shows the system tray with the date '9:01 AM 4/3/2019' and the language 'ENG'.

# How an example cont.

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## Microsoft Word

- New Comment
- Track Changes

# An Example Microsoft Word

The screenshot displays a Microsoft Word document titled "Alissa Adeline Jess Rachelle- Science lesson plan- REVISION -3-26-19 - Word". The document is in the "Home" tab, showing the ribbon with options like File, Home, Insert, Design, Layout, References, Mailings, Review, View, Acrobat, Design, and Layout. The main content area features a table with the following structure:

Assessment of Student Work (Attach your student-ready assessment tool or describe specifically how student achievement of each objective will be measured and documented.)	
<b>Formative assessment</b> (informal and formal, occurring before, during, and after instruction along with WHY to assess student understanding and to inform and adjust instruction):	<b>Pre/Post</b> —TC will ask students to <b>draw a picture of a frog and a baby frog</b> to see what information they know and what to build upon. During the <b>post test</b> this allows the teachers to gain an understanding on where the students knowledge lies. For <b>post assessment</b> it allows teachers to reflect on their teaching and make a decision on if the lesson needs to be re-taught or it is okay to move onto the next assessment. <b>Pre</b> — TC will ask students to <b>draw the life cycle of a frog in step-by-step format to see what information they know and what to build upon.</b> This allows for teachers to gain the knowledge on what the students know and what they do not know. <b>During</b> — The teacher will read the book <b>The Lifecycle of a Frog.</b> Then allow time for the students to ask questions and for the teacher to ask questions to the students to check for understanding. <b>Book review</b> and answering questions. This allows for students to gain the knowledge by listening and visualizing pictures to understand the stages of the life cycle. This also gives students another <b>reinforce</b> to allow students to gain proper knowledge of the number of cycles <b>with in the life cycle of a frog.</b> <b>Post</b> — here the teacher will ask the students to flip over the same paper they drew on in the beginning of class and now <b>draw the four stages</b> of the frog's life cycle. For <b>post assessment</b> it allows teachers to reflect on

On the right side of the document, there is a comment thread with three entries, each starting with a red speech bubble icon and the name "Chang, Ni":

- Chang, Ni**  
Alissa, Adeline, Jess, and Rachelle, I am wondering why this highlighted part necessary and why you simply provide children with pieces of paper to have them draw. My rationale for these questions is that some children may know more stages than you may expect. If you limit the knowledge with "step-by-step format" this may offer you limited window into children's understanding levels.
- Chang, Ni**  
Alissa, Adeline, Jess, and Rachelle, As we know, reading a book and then reviewing the book with the children are all considered as means of teaching. Yet, in this box, you are asked about what you are going to do to assess children's learning while you are teaching. In other words, how you are going to teach is irrelevant here. The concern here is how you are going to assess children's learning.
- Chang, Ni**  
Alissa, Adeline, Jess, and Rachelle, Yes. Asking questions is for checking for understanding. But it is necessary to remember the questions asked should be consistent with the objective.

The status bar at the bottom indicates "Page 2 of 11", "2908 words", "English (United States)", and the system clock shows "10:42 AM 3/28/2019".

# A student' most recent unsolicited comment

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April 24, 2019

Thanks for a great semester! I appreciate your feedback and I feel it will help become a great teacher in the future.

# Limitations

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(1) The beginning of the spring semester

(2) Definition of e-feedback

(3) Not be able to complete the survey in earnest

(4) Distracted by their surroundings

Nonetheless,

A. Make useful contributions to teaching and learning

B. Generate a stimulating topic for the best interest of students

# Conclusion

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Feedback preference sought

E-feedback preferred

Stronger ratings for *accessibility, timeliness, and legibility*

*Relative lower ratings for quality and personal*

The majority of students long for assistance from instructors and for receiving feedback

Awarding a single grade not helping and improving learning.

Being mindful when providing feedback on students' assignments in terms of what, when, and how.

Feedback should truly help advance students' learning.

# References

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P. Denton, J. Madden, M. Roberts, and P. Rowe, "Students' response to traditional and computer-assisted formative feedback: A comparative case study," *British Journal of Educational Technology*, vol. 39, pp. 486-500, 2008.

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D. S. Ackerman and B. L. Gross, "Instructor feedback: How much do students really want?" *Journal of Marketing Education*, vol. 32, pp. 172-181, 2012.

K. Matthews, T. Janicki, L. He, and Patterson, "Implementation of an automated grading system with an adaptive learning component to affect student feedback and response time.," *Journal of Information Systems Education*, vol. 23, pp. 71-83, 2012.

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# References cont.

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- G. Morrissey, M. Coolican, and D. Wolfgang, "An intersection of interests: The millennial generation and an alternative world language teacher education program. Paper presented at the American Educational Research Association Annual Conference New Orleans, LA, 2011.
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- M. Price, K. Handley, J. Millar, and B. O'Donovan, "Feedback: All that effort, but what is the effect?" *Assessment & Evaluation in Higher Education*, vol 35, pp. 277-289, 2010.
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# References cont.

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U. Krause, and R. Stark, "Reflection in example- and problem-based learning: Effects of reflection prompts, feedback and cooperative learning." *Evaluation & Research in Education*, vol. 23, pp. 255-272, 2010.

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D. Ifenthaler, "Bridging the gap between expert-novice differences: The model-based feedback approach." *Journal of Research on Technology in Education*, vol. 43, pp. 103-117, 2010.

D. Rushoff, "Online courses need human element to educate," from <http://www.cnn.com/2013/01/15/opinion/rushkoff-moocs/index.html>, January 15, 2013.

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**Thank you for coming!**

