

NEXTcast Season 1 Episode 4: Lara McInnis on Improving Student Feedback

We speak to English professor Lara McInnis about her research into using think-aloud protocols to improve feedback to students.

Nathan Whitlock: Welcome to NEXTcast. My name is Nathan Whitlock, an editor at Humber Press. NEXTcast is a podcast about teaching and learning at Humber College. Every episode we talk to some of the faculty and staff who are leading innovation both inside and outside the classroom. Our guest on this episode of NEXTcast is Lara McInnis, the acting program coordinator for remedial and developmental ESL courses. We'll be talking to Lara about research she's done into the way professors give feedback to students.

Nathan Whitlock: Hello, Lara, welcome to NEXTcast.

Lara McInnis: Hi. Thanks for having me.

Nathan Whitlock: Tell us a little bit about your role at Humber, some of the work you do.

Lara McInnis: Well, right now I'm working in the English department. And I teach ESL and English courses. And I've done some work also in another department, working with the English for Academic Purposes program, which is a pathway program for students to work on their English to prepare them for college. And I've also done some coordinating in the teaching English as a second language program as well, which is a postgraduate certificate program.

Nathan Whitlock: So some of the work you've been working on recently is a teaching innovation fund project regarding types of feedback. Can you tell me a little bit about what inspired it? Did you notice something about how students were taking feedback on their writing?

Lara McInnis: Yeah. Actually that was noticed. But it wasn't actually noticed by me, interestingly. This sprung out of really a large curriculum change that happened in the English department. Basically, most of the diploma level English courses at Humber used to be grammar based with a real focus on sequential grammar intensive lessons. And a few years ago there was a decision to revamp that curriculum and lean it more towards critical analysis, summary writing, paraphrasing, skill-based writing. And so in response to that, there was this need and desire from the students and

from the faculty to provide some additional grammar support for students. And so one of the writing center coordinators, Sean Gilpin, and I put together this thing called the Grammar Advancement Project. And this was ... and our curriculum review group got together and used University of California program where students do independent grammar learning. So they go off on their own, they do grammar learning, and then they come back and they do reflective writing. So we thought maybe that would be a nice supplement. And basically the students would write a sentence, and if there were errors, the teacher or a tutor would reformulate that sentence to help the student see what a native speaker would do.

Lara McInnis: So when we reported that back to our curriculum review group, the coordinator at the time, John Stilla, said, "You know what? This might actually work well with native speaking students who are working at the remedial level." So, it's very developmental, they have a chance to work on trying to notice their errors in their writing. And maybe this reformulation method, which is very popular in the ESL stream and the ESL world, might actually work well with remedial students. So that's kind of how it all came about. And we thought that was our research question, would it work. Would this corrective feedback approach help our remedial students in the, what we call the Writ Stream, to notice their errors more? And if they can notice their errors, they become better writers. So once it was approved by the REB and approved by the TIF Fund, we dove into the study in the winter semester. And we started working with the students.

Nathan Whitlock: And what were the kind of results that you noticed as you did that research?

Lara McInnis: This was really interesting for us. The one thing I should add about our methodology was that we replicated Think Aloud protocols. And Think Aloud protocols, if you're not familiar with them, sometimes they're called Concurrent Verbal protocols, these are ... when someone is completed a complex task, like complex problem solving or trying to go through a thought process, we ask them to articulate their thoughts as they do the task. So we record their thoughts as they're doing the task, whether it's reflecting on the decisions they made or kind of everything that goes on their mind, whether it's random or not. That process allows us to kind of analyze that noticing and that awareness in their writing.

Lara McInnis: Okay, so the students did a reading, and then after they did the reading, they wrote kind of an argumentative response to the argument in the reading. And then what they wrote was reformulated by a tutor. And

then we asked the students to go through those two versions and just talk about everything that goes on in their thoughts as they compare those two versions. And then what we had them do is come back a week later and write the same thing again. So they saw their original version, they didn't see the reformulated version, but they tried it again. And so what we were interested to see was what they had articulated and noticed in the previous week, whether that was actually retained and used into an improved written version the second week.

Lara McInnis: So, what did we find? It was really tough to kind of pull apart the data. There was a lot of qualitative data. There was a lot of verbalizing that went on. What we did was we identified what we called moments of noticing. So we listened to the verbalizations. And every time a student said, "Oh, I see that blah, blah, blah," then that would tell us that there was something noticed between those two versions. And so when we looked at the second written paragraph the following week, we looked to see if what had been noticed led to what we called a corresponding error correction. And so whether that error correction was made that linked to that verbalization the week before. That was the most striking result for us was that the students who articulated a difference between the reformulated versions and their own versions, more frequently those students did improve in their writing because of it. So there were more corresponding error corrections based on those moments of noticing from the previous weeks.

Lara McInnis: Now, in terms of the overall quality of their writing, it was very difficult for us to gauge that. We did look at things like clausal density, how sophisticated their writing was, whether that improved. And we really didn't have enough data to say. We ended up with quite a small sample size. So it was hard to really generalize the findings or even see anything that was statistically significant. But, it was striking to us that what had been verbalized and noticed, in many cases it was actually contributing to an improvement in the writing subsequently.

Nathan Whitlock: So that act of just verbalizing the process almost awakened or engaged a different part of their brain, made it easier to retain.

Lara McInnis: Exactly, exactly. That's true.

Nathan Whitlock: That's how well I know brains, using those technical terms. A different part of the brain.

Lara McInnis: No, but that's the whole thing about thinking aloud. They call it reactivity actually, which is problematic when you're trying to study. Because the

act of thinking out loud and verbalizing your thoughts may lead you in a different direction than what you were going to think without verbalizing it. So that's hard to measure and can be problematic when you're doing a study. Nevertheless, just from a pedagogical standpoint, asking students to articulate or even write down what they notice between the two versions may actually help them apply those changes to improve their grammar in the future.

Nathan Whitlock: Think Aloud protocols, I keep this image of someone defusing a bomb and talking to someone through a headset, like, "I'm now going to cut the red wire. I'm not cutting the blue wire."

Lara McInnis: Exactly. Actually, I remember I had a professor who is quite a guru in sociocultural theory. And she talked about Think Aloud protocols with respect to mystery solving. And how when you read a mystery book, a detective often starts describing something. Like Sherlock Holmes would start articulating something and noticing things, which would prompt him to notice other things. And so that's what actually got my professor interested in that idea of reactivity and what she calls languaging actually, thinking aloud actually contributes to thought. For me, just anecdotally, I've noticed a lot of my students in the remedial class who maybe might forget and 'ed' on a word or a word ending like 's' or something that I would call a salient error, they over time, if they're prompted and they look at the differences, they can start to say, "Oh yeah, I've gotta watch for that S. I've gotta watch for that word ending." So for word forms I have found that reformulation seems to help, yeah.

Nathan Whitlock: Has that changed how you approach some of the teaching you do and some of the methods you use in the classroom?

Lara McInnis: I would say so, absolutely. If you put people, students in groups of five or six, choose a sentence, like for example, in the HIVES, you can write on the board your reformulation. And then ask the students, say, "Okay, in 10 minutes I'm gonna ask everybody to explain the difference." And that's the metacognitive part right there. For them to use that metacognition and be able to use the meta language to explain the differences that are structural is really helpful for them. So it's facilitating dialog because it's a group already. But it also gets them to think in a different way, more strategically, about how language is structured and then they can kind of learn the meta language as they go.

Nathan Whitlock: And is there a specific case or a specific student that you noticed was really doing well with this method?

Lara McInnis: Yeah, I had a few students who I feel benefited a lot. I had one student in particular who was struggling with word forms. And when she would read aloud she wouldn't notice that she was making errors sometimes. And so I always do journal writing with students in the remedial classes. And in this particular journal, I would rewrite parts of the student's journal for her. And so I would make some comments about her ... she would write about what she did that day or something, and I would make some comments about it. But then I'd say, "You know what? I'm gonna write a few sentences here, and in your next journal, I want you to compare them and I want you to describe the difference between what I wrote and what you wrote."

Lara McInnis: And we did that over a series of weeks. She loved it. She said it hurt her brain a little bit. But by the end of the semester those focused errors that we were able to hone in on, I absolutely saw demonstrable improvement in her word forms over time. So it was nice to see that on that individual case someone who responded so positively to reformulation. And it was on a very moderated level, but I could see that she was starting to build awareness and notice her errors more which I would argue is the goal of a teacher is to empower, help the students empower themselves to self correct and reflect on their writing.

Nathan Whitlock: Do you think this can be used in other programs and in other kinds of classes?

Lara McInnis: Yeah. I think for study purposes perhaps, in one on one tutoring sessions, perhaps in the math center. There's some research in reading for elementary students. But I think when you're looking at academic strategies, whether it's studying, group work, dialoguing, I think it all fits under that.

Nathan Whitlock: Well, to do my own Think Aloud protocols, I'm wrapping up the interview. And I'm about to thank you. Thank you very much, Lara.

Lara McInnis: Thank you so much for having me. I appreciate it.

Nathan Whitlock: NEXTcast is produced by Humber Press and the creative productions team at The Centre for Teaching and Learning at Humber College. Special thanks to Puneet Wagh, Santino Pannozzo, Allison LaSorda, Darren Richards, and Eileen DeCourcy. To suggest stories for future episodes of NEXTcast or to let us know what you think, email humberpress@humber.ca. That's humberpress@humber.ca. To learn more about the workshops, teaching certificates, and other support offered through The Centre for Teaching and Learning, and to read issues of NEXT

magazine, go to humber.ca/centreforteachingandlearning. Thanks for listening. See you next time. That's not a pun.