

Transcript of Video for
Teaching/Learning New Product Development
From Active Learning Classroom to Online
Laurie A. Meamber (PO-05)
ITL Conference 2020, George Mason University

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00:00:01.829 --> 00:00:06.690

Laurie Meamber: Welcome to Teaching and Learning New Product Development from Active Learning Classroom to Online.

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00:00:07.200 --> 00:00:24.450

Laurie Meamber: My name is Laurie Meamber. I'm an associate professor of marketing in the School of Business at George Mason University. If you have any questions please email me. There's also a PDF poster for this session, and a PDF handout on a word cloud exercise available in the ITL conference proceedings.

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00:00:27.150 --> 00:00:38.520

Laurie Meamber: Active learning classrooms or ALCS support collaborative group learning. In recent years, George Mason University has increased signature learning spaces on the Fairfax campus,

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00:00:39.180 --> 00:00:45.330

Laurie Meamber: including ALCS, such as collaborative classrooms that promote technology use by student teams.

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00:00:46.080 --> 00:01:03.210

Laurie Meamber: In spring 2020, a 30-student undergraduate new product development or NPD course was taught in an ALC collaborative classroom on the Fairfax campus for the first half of the semester. Then it moved online due to the COVID-19 pandemic.

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00:01:04.230 --> 00:01:12.120

Laurie Meamber: Resources in this ALC include: fixed tables that seat small groups of six at locations around the sides of the room,

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00:01:13.260 --> 00:01:26.580

Laurie Meamber: fixed and rolling whiteboards, and flat screens at each table that allow the instructor to share visual materials or they can be switched over, so that students at each table can connect their own technology for viewing by others.

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00:01:28.200 --> 00:01:37.59

Laurie Meamber: The NPD course, in line with best practices for teaching design thinking and new product development, requires active and experiential learning to increase engagement.

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00:01:38.310 --> 00:01:47.190

Laurie Meamber: Two thirds of the flipped class time involves students working together on team exercises that help them to learn and to apply new product development concepts.

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00:01:47.850 --> 00:01:58.590

Laurie Meamber: These also prepare them to complete a team project of developing a new product idea, creating a non-functional physical or visual prototype, and planning the launch of the product.

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00:02:01.500 --> 00:02:16.290

Laurie Meamber: Here are photos of classrooms and of student interaction from fall 2017 and earlier. These traditional classrooms did have movable tables and chairs, but the furniture was not easily rearranged given the small size of the rooms.

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00:02:18.810 --> 00:02:25.470

Laurie Meamber: Here are photos of the traditional classroom used in spring 2019. This room provided more space overall,

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00:02:25.980 --> 00:02:36.870

Laurie Meamber: and there was space between tables in the rooms, but with the large chairs, it became very crowded and challenging for students and for me to move around and see the work of the individual teams.

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00:02:39.720 --> 00:02:49.590

Laurie Meamber: In the ALC used in the first half of spring 2020 there was plenty of space for students to walk around the tables which facilitated team collaboration.

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00:02:50.250 --> 00:02:59.730

Laurie Meamber: The continuous whiteboards and flat screens at each table allowed teams to interact with each other, with me, and to share their learning with the entire class.

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00:03:02.460 --> 00:03:17.070

Laurie Meamber: Here is one additional view of the ALC classroom and of the students working in the classroom on a physical build exercise. Notice the students are able to both sit and stand around the work tables to assist and advise each other.

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00:03:20.370 --> 00:03:26.070

Laurie Meamber: In addition to utilizing the table space to work on physical product builds and other exercises,

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00:03:26.730 --> 00:03:37.410

Laurie Meamber: students were able to leverage the flat screen technology at their tables to project images from their own laptops instead of the team having to hover around a small device screen.

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00:03:38.280 --> 00:03:46.230

Laurie Meamber: Teams could also share their accomplishments with me, and the entire class, such as word clouds they drew and projected on the flat screens.

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00:03:49.320 --> 00:04:03.810

Laurie Meamber: Here's an overview of the word cloud exercise. It is also available as a separate PDF handout in the conference proceedings, so you can pause this video now to review the exercise or view the PDF later after watching the rest of the video.

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00:04:06.720 --> 00:04:13.500

Laurie Meamber: Other exercises utilized in this course that I presented in prior poster sessions can be found under my name in the

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00:04:15.540 --> 00:04:17.250

Laurie Meamber: ITL conference proceedings.

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00:04:20.520 --> 00:04:29.250

Laurie Meamber: Teaching the NPD course in an ALC has transformed the student learning experience. The collaborative process and work products have improved.

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00:04:30.150 --> 00:04:41.010

Laurie Meamber: The experiential exercises that are not graded, but given credit for completion are qualitatively better. This has resulted in students being able to leverage these outputs in graded deliverables.

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00:04:41.940 --> 00:04:53.640

Laurie Meamber: It also appears that the time spent learning together in the ALC carried over positive effects when the course was online mid-semester, such as students experiencing less team conflict.

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00:04:55.350 --> 00:05:07.110

Laurie Meamber: Newer types of classrooms can impact learning in courses across many disciplines, especially those that involve student teams and require students to do hands-on work of a physical or digital nature,

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00:05:07.620 --> 00:05:12.660

Laurie Meamber: and to share it on the spot with their team members, and the finished product with the entire class.

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00:05:13.620 --> 00:05:20.820

Laurie Meamber: The interactions in these classrooms can also facilitate learning in other formats such as hybrid delivery courses.

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00:05:21.330 --> 00:05:32.250

Laurie Meamber: The ALCS can be used for active learning exercises that work best as small group exercises in a physical classroom, while online work can be used for other aspects of the course.

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00:05:35.100 --> 00:05:41.520

Laurie Meamber: One example of a higher quality deliverable that students created in spring 2020 was a new product prototype.

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00:05:42.480 --> 00:05:48.510

Laurie Meamber: In earlier semesters, student teams often chose to create physical representations of the products they designed.

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00:05:49.380 --> 00:05:59.400

Laurie Meamber: In spring 2020, when the course was first taught in the ALC and went online mid-semester, the student teams submitted visual prototypes at the end of the semester.

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00:05:59.940 --> 00:06:16.380

Laurie Meamber: These ended up being more sophisticated and complete representations of the new product ideas. The exercises and work they did in the ALC using the flat screen technology to work collaboratively appeared to prepare them to refine their later online work.

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00:06:20.340 --> 00:06:35.310

Laurie Meamber: To conclude, here are some references about best practices for teaching this type of course. As mentioned at the beginning of this presentation, there is a PDF poster for this session and the description of the word cloud exercise available in the conference proceedings.

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00:06:37.740 --> 00:06:47.280

Laurie Meamber: Thank you for your interest in this presentation. Thanks to colleagues, students, and those affiliated with the ITL conference. It has been a pleasure to participate.