Project Four: Designing Professional Development

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Project Student Contributions

Matt Farber: Created the participant surveys to assess the efficacy of the professional development delivered using Edmodo as a Learning Management System (LMS)

Jill Hayes: Investigated teacher-resistance to typical professional development, evaluated need and organizational factors driving the professional development series.

Michael Kutch: Created the long-term assessment instruments and data collection scheme to evaluate the effectiveness of the Edmodo professional development.

Charlene Mason: Created an agenda of ongoing professional development modules to be delivered using Edmodo in blended learning situations.

Assessing the Need for Professional Development

Many educators across the country are changing their teaching styles to meet the needs of a 21st Century curriculum. For years teachers have been using the pedagogy in which they would lecture to the students and control the pace of instruction. The teacher-centered model of educating children has shifted to a more student-centered classroom. The 21st century curriculum introduces a new pedagogy of students teaching themselves, leading instruction, and controlling the pace of the lesson. In contrast, in this education model the teacher is used as a resource for guidance and support. This new student-centered curriculum supports the theories of Dewey and Vygotsky. In the past, many educators tried to apply the pedagogy of these theorists to their instruction however; they did not have the appropriate tools to do so. Fortunately, teachers across America have access to tools which will become the foundation to support the 21st Century curriculum: technology.

The role of technology is to support the pedagogy of student-centered classrooms or project based learning. Districts across the country are showing vast increases in the purchase of technology for classrooms to support the curriculum. However, many of these districts lack an effective technology plan to identify the purposes the technology would serve. Many educational institutions believe that placing technology in the classroom will assist in following the new curriculum and increase student performance. However, many teachers and staff members are not implementing the technology into their daily lessons; thus leaving the technology to sit in the classroom unused. According to Fullen (2001), the largest single factor affecting the adoption of technology in the classroom is teacher resistance. Many teachers are resisting incorporating new technologies into their classroom for a variety of reasons. Some of these reasons include:

- Technology dehumanizes the educational process
- There is a loss of feedback between student and teacher
- Teachers feel using technology is too complex
- The technology is not reliable and simple to operate
- There is little freedom for the teacher choice or decision making
- Educators are confident of their own teaching methods, making technology unnecessary.
- The objectives for using technology is unclear
- Veteran educators have a fear of change
- Using data from the technology is too complicated
- Teachers believe if other colleagues do not use technology then "Why should I?"

Teachers who embrace educational technology, also feel that administrators are thrusting computers into classrooms without their input, proper training, or support needed to use the technology effectively (Richtel, 2012). Teachers should not be required to shoulder sole responsibility for effective technology integration in schools.

The transformation of classroom technology and education requires effective leadership. The leadership stakeholders may be school administrators, technology coordinators, and curriculum development committees. Leadership is the key to changing teachers' attitudes about technology in the classroom, and leaders need to produce effective, ongoing professional development that supports teachers. However, administrators cannot just offer professional development for teachers. They must first gather data to identify the needs of the teachers. It is important for leaders to gain an understanding of the teachers needs in order to help teachers embrace technology in their classroom.

The state of New Jersey has developed regulations for professional development to ensure that training requirements are being met. According to the New Jersey Department of Education, the professional development plan should include identifying the staff's needs and determining how these needs are going to be met (District-level Professional Development Planning, 2014). It is important for districts to gather information before planning and implementing a technology plan. Districts must identify the professional needs of all staff by

using different sources of gathering information before designing any technology initiatives or goals. There are a variety of ways for districts to collect data about teachers' perceptions and practices when using technology. The School Technology Needs Assessment (STNA) is one tool which provides administrators with quantitative data about the attitudes of their staff as well as their technology skills.

STNA is an online survey intended to facilitate administration, technology coordinators, and curriculum directors in making professional development decisions that support the district's vision and mission statement. STNA is an effective survey system used to evaluate the implementation of the districts LMS initiatives. Districts use STNA as a source of collecting and analyzing data to evaluate the staff's technology needs and professional development. Although, the STNA survey may provide leaders with an initial analysis of educators' attitudes and technology skills, is not necessarily a reliable instrument for planning professional development. The STNA survey allows teachers to answer question related to technology based on their perceptions. Teachers can "check" a response that best matches how much they agree or disagree with each statement. The STNA survey does not provide teachers an opportunity to add additional information. The survey is lacking in qualitative questions and is not necessarily a dependable resource for determining the district's LMS initiative. For example, one question in the STNA survey asks teachers, "If other staff members support the school technology plan?" Many teachers are not aware of what is going on in other classrooms and cannot identify another staff member's feeling. Therefore, the teacher response to the survey question might be "Do Not Know."

According to a study conducted by Corn (2007), schools in North Carolina had a noticeably high percentage of "Do Not Know" responses. These types of questions are not a

reliable method for assessing the staff needs. In addition, the STNA is a limited resource because it is a self-reporting tool which cannot accurately identify the technology needs of the staff or the best path for planning professional development. When people take a survey, many times they do not know their own technology capabilities. Some people believe they have a good understanding of how to use technology in a classroom setting, when in fact; they are lacking many skills for effective teaching and student achievement. Therefore, administrators must gather more reliable statistics from the staff by using a variety of tools for accumulating data.

Additional sources are available for districts to accrue data and analyze the needs assessment of the staff. Administrators can use the Edmodo Learning Management System (LMS) analytics as a tool to see what teachers are doing with LMS and how they are using it with the students in real-time. This can serve as evidence for the administrator to identify if the objectives for LMS initiatives are being met. An administrator "walk-through" can be an effective tool for assessing the needs of the staff and to gauge the effectiveness of the professional development. Leaders can use a formative assessment to see what is happening in the classroom in terms of what teachers are doing, as well as, what students are doing in class. Frequent "walkthroughs" can illustrate how teachers are using Edmodo to enhance learning. A walk-through should include a detailed documentation of what is happening in the classroom to provide justification for recommendations.

One resource that administrators can use is the Technology Integration Matrix (TIM). The matrix illustrates five attributes of a meaningful learning environment and five levels of technology integration. Using the TIM framework provides observers with a "rubric" to identify a teacher adoption and infusion of the technology tool. The matrix can provide valuable

information on needs assessment for a particular staff member. By using the matrix as a classroom observation component for assessment, an observer can identify teachers who are using the LMS, Edmodo, to just deliver curriculum or to identify teachers who are using the system to support active and meaningful learning. For example, entry-level lessons would be teacher centered and deliver the information to the students. Transformation lessons would be student-centered with activities supported by various technology resources. The Technology Integration Matrix allows observers to assess teachers' ability levels and their needs.

Effective professional development always begins with a needs assessment. This assessment requires leaders and other stakeholders to gather pertinent information, analyze the data, and identify the needs of the district. When a district can assemble enough facts and figures from the needs assessment, then they can begin to design a high-quality professional development plan. The professional development will consist of small training groups that are designed from the information gathered from the needs assessment. The categories for each group will consist of three major components: skill level, school building, and content area. The design of the training should be ongoing, offering many opportunities for professional growth, and monitoring staff participation in training courses. The needs assessment provides districts with the opportunity for powerful professional development that takes place in learning communities to offer all stakeholders support, collaboration, and continual growth.

Planning and delivery of Professional Development

In building a robust, collaborative, differentiated, and engaging program of professional growth, the technology coordinator has at the forefront of the planning process the intended outcomes of a district's Professional Development program (Baltimore City Public Schools,

2013). The primary outcomes to be accomplished with this project's professional development plan include:

1. Provision of learning opportunities to increase participants' utilization of Edmodo (LMS) for professional growth and district initiatives.
2. Provision of collaborative planning in Edmodo's anywhere, anytime learning environment for the creation of learning activities to increase student achievement.
3. Establishment of a district culture that promotes the effective use of Edmodo's educational data in transforming learning for students and teachers.
4. Creation of an educational environment that demonstrates respect for staff members as professionals and adult learners (*Closing the Gap*, 2012).

The technology coordinator is charged with bringing the district stakeholders (administrators, teaching staff, and support personnel) on board with Edmodo which states as its mission "…to connect all learners with the people and resources they need to reach their full potential" ("About Edmodo", n.d.).

The Edmodo Professional Development will include both training and professional development as Gartner research prescribes (*Closing the Gap*, 2012). Training in the form of skill-based activities such as setting up groups, joining groups, or posting messages with content will be provided to address learners' needs in becoming competent and confident users. Skills training will be delivered on beginner, intermediate, and advanced levels as determined in the district needs assessment. Participants will be encouraged to advance through skills levels through ongoing PD sessions. Professional development content will assist participants in utilizing learning analytics to improve instruction and student achievement at grade-level and in content areas. This professional development, although best begun earlier in the school year, will commence immediately; the opportunity for "summer camps" for more advanced training will be presented at a later date.

The primary investment in Edmodo Professional Development is in time needed for staff to attend an introductory planning session. This session should be held on a professional day

when the focus of staff attention would be solely on professional development activities with a short term goal of a take-away activity to be completed on the next work day (beginners will create classes, intermediate users will use small grouping to effect differentiation, and advanced users will enroll their classes in Edmodo's Snapshot feature). Equipment investment costs would be negligible as Edmodo works on most platforms including iPad, Android, and Windows8, so it is appropriate for using in a one-to-one or BYOD setting. A premium fee of $2000.00 per year affords districts the ability to assign standards-aligned resources in response to daily "actionable insight" into student mastery of common core standards. ("About Edmodo", n.d.). The free version offers much in the area of the promotion of 21st century skills for teachers and students alike.

Edmodo offers professional development organizers many levels of support including video tutorials and webinars, forms and quick start guides which can be customized, pre-established collaborative "mentor" groups, slideshow presentations, and a help center query system. These differentiated resources address varied learning styles and practices of participants and provide an opportunity to construct a blended learning environment for teacher-learners who can then model the experience for their students.

What would professional development be without a little fun? Beginners can create their own avatars and let their inner personality escape, intermediate users can go global and hear about student collaboration with global partners at EdmodoCon and advanced users can visit the Edmodo Apps Playground to:

- Test out free apps (and paid apps soon!) before installing.
- Connect with other teachers that love apps (and technology in general).
- Provide feedback for app publishers and submit requests for new apps that they would like to see offered on Edmodo. To join the group (see table below), teachers need only enter the Join Group URL: **https://edmo.do/j/ykij2s** (Edmodo, 2014).

*1st - 3rd Teachers	http://edmodo.com/join/cab6a14b59b4e692a908c4066ce1b9c7	E. Mavros	Educators teaching grades 1-3 interested in sharing ideas, getting some new ones and having quick resources available to you	guscne	Kristina Holzweiss
*3rd Grade Teachers	http://edmodo.com/join/54e6ff24660972469dc3a13207d6bebc	Amy Sanders	This is a group for third grade teachers to exchange ideas, challenges, and resources from around the world.	8p1p0c	Amy Sanders
*4th Grade Music	http://edmodo.com/join/5529f99bfebcef9863367059cef44708	Ms. Kari Peterson	Somerset 4th Grade Music Wiki	rpstel	Kari Peterson
*4th Grade Teachers	http://edmodo.com/join/2a30aeed3c454b00ae772ba471e3745a	Ian Davey	Group for 4th grade teachers to share and collaborate on 4th grade related materials. Especially related to flipping the classroom and innovative teaching.	lndelb	Ian Davey

The many features of Edmodo, its user-friendly platform for teachers and students, and its motivational value in social learning make it a suitable choice for the district's LMS. In designing the professional development, the technology coordinator will be guided by the principles recommended by the Association of California School Administrators: chunk content, employ peer teaching, use technology authentically, inject humor, and provide follow-up (Gonzales & Vodicka, 2008). An e-mail invitation from the superintendant with a "join code" (https://edmo.do/j/aiip97) will initiate the "kick-off" of the district's ongoing program to improve teacher and student learning experiences through the implementation of Edmodo. Once staff login they will be asked to view a short introductory video (less than 5 minutes) and participate in a poll. On the PD day, school based trainers, in this case library media specialists, will conduct a brief, large group introduction and then assist staff members into small group clusters by content area or grade level. Staff members who have limited experience with Edmodo will be

provided with weekly training sessions of ½ hour duration of onsite instruction in the media center. Sample Modules to be presented:

Module	Beginner Activity	Intermediate Activity	Advanced Activity	Delivery Method	Suggested Resources
For Starters?	getting started with Edmodo: Creating an account, groups	using groups to differentiate professional development	Implementing SNAPSHOT feature to align instruction to Common Core and assess student progress	onsite staff trainer, Grade-level Quick guides, Edmodo video tutorials, Edmodo blog features	Suggestion for beginners: Edmodo webinar http://edmodo.mediacore.tv/media/edmodo-overview-webinar-6-18-14
Plan On It!	collaborate with colleagues on lesson plan creation or grade level projects for beginners & lower elementary	create a grade appropriate lesson using Edmodo's backpack feature with small group	create a peer taught unit on Edmodo's Quiz feature	small group training online, Edmodo video tutorials, Edmodo blog	Suggestion for intermediate user: Teacher tips on using Edmodo to facilitate providing resource materials to students https://biancahewes.wordpress.com/2011/11/30/edmodo-resource-sharing-collaboration-lessons-communication-assessments-and-organisation/
Better than a selfie: Snapshot by Edmodo	view tutorial and take snapshot micro assessment, enroll students	Enroll students, create small groups for assigning standards resources based on reports	Lead a group discussion or create a poll for small PD group on merits of Edmodo in informing instruction	Edmodo tutorials, webinars, Snapshot quick start guide, Edmodo blogs, Edmodo's Teacher Lounge	Suggestion for advanced user: read some reviews of Snapshot http://www.educatorstechnology.com/2014/05/snapshot-great-new-edmodo-tool-for.html

Engage Learn Support

These modules form a new trend in the professional learning cycle as reported by edSurge ("How Teachers are Learning", n.d); engaging teachers with relevant topics in a social learning climate and supporting their efforts with shared multimedia resources and in person and/or online mentoring. The measurement piece of the cycle is contained in the assessment and evaluation process of the professional development. Edmodo encourages a similar learning cycle of engage, personalize, connect, and measure ("About Emodo," n.d.). Through professional development for Edmodo, staff members will be introduced to the "one stop shopping" features of this LMS including an integrated grade book, motivational activities such as badge awards, parent view/notification, connection to Google drive, and the district's ability for safe social learning. The delivery system sample, the LMS Edmodo, can be viewed at the join URL: https://edmo.do/j/aiip97 .

Assessing Professional Development

The assessment of the professional development experience will begin with a participant exit survey. The self-assessment questionnaire will assess the aptitude the presenter had in communicating Edmodo's utility to support project-based instruction. It will be delivered on the Edmodo LMS platform, using the "Quiz" feature. The questions are based on the Ohio ABLE System Framework.

It should be noted that data collected via self-reporting can be flawed. Errors and biases in self-reported data date back to a 1972 University of Kansas study. The findings reported that relying on the participants' ability to be honest in recording data on their own actions might be inherently flawed (Fixsen, Phillips, & Wolf, 1972). As a result, the self-reported data in the Edmodo survey will be triangulated in the questionnaire, as well as by an observer, using a rubric. The observer's rubric is modified from Thomas R. Gurskey's Five Levels of Professional

Development Evaluation. Self-reported data will be further crosschecked with analytics provided on Edmodo, as well as the users' profile data. The cloud-based "Library" files (uploaded by teachers), imported class lists, and participation in professional development forums further triangulate the effectiveness of the workshop.

Proposed by Ruben Puentedura, the Substitution, Augmentation, Modification, and Redefinition (SAMR) Model assesses where educational technology systemically changes learning. SAMR gauges how technology promotes higher-order thinking tasks—especially in project-based learning (PBL) settings (Puentedura, 2014). It can be said that Edmodo, as an LMS tool, has the potential to take teaching to the "Redefinition" stage of the SAMR Model, where "computer technology allows for new tasks that were previously inconceivable" (Puentedura, 2014). If teachers show an interest in Edmodo-supported applications that are collaborative, student-centered, and involve PBLs, then the workshop presenter can be considered as effective in his or her duties.

Edmodo began monetizing itself by becoming a platform for third-party applications. Workshop participants will create a "wish list" of applications that are supported on Edmodo's platform. The inquiry into certain categories of applications is an indicator of how PBLs can be enhanced using collaborative technology. Authoring tools, like the Pixton comic creator, PowToon animation, and Gamestar Mechanic are robust toolsets, requiring creativity and problem-solving competencies. Implementations of these applications show teacher "buy-in" to the Edmodo LMS. Outside applications with Edmodo integration is another indicator that participants understood its usefulness. For example, digital poster created on, GlogsterEDU can be shared directly on Edmodo. Students can also play GlassLabs's games (e.g., *SimCityEDU*) with its "Logon with Edmodo" button.

Professional Learning Satisfaction Self-Assessment Survey

Name: _____

Edmodo User Name: _____

Part One. Please circle the most appropriate response based on your current feelings about the statements below:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

1. The workshop was easy to follow.

1 2 3 4 5

2. The presenter was an expert in using Edmodo.

1 2 3 4 5

3. Edmodo was fun and engaging to use.

1 2 3 4 5

4. There is a utility to me to use the Edmodo Teachers' Lounge webinar series.

1 2 3 4 5

5. I am likely to recommend Edmodo to a colleague in another school district.

1 2 3 4 5

6. I had enough time to use Edmodo's features during the session.

1 2 3 4 5

7. The use of Edmodo to deliver the session enhanced the experience.

1 2 3 4 5

8. The presenter utilized Edmodo's features in a way that promoted peer learning.

1 2 3 4 5

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

9. At the workshop, veteran users of Edmodo mentored novices.

1 2 3 4 5

10. The workshop created communities of practice that could endure after the workshop formally ended.

1 2 3 4 5

11. The presenter shared follow-up resources that will enable me to deliver project-based instruction.

1 2 3 4 5

12. Edmodo can be used create a conversation of learning, rather than an electronic version of a top-down classroom model.

1 2 3 4 5

13. Edmodo is not the add-on; it's a tool to deliver projects and cooperative learning.

1 2 3 4 5

Part Two. Open-Ended Self-Assessment of Satisfaction.

1. What grade(s) do you teach? (List all that apply):

2. What discipline(s) do you teach? (List all that apply):

3. Did you download the starter kit before the workshop?

4. Did you join Edmodo community groups before the workshop?

5. Did you review the Help pages before the workshop?

6. Did you upload a personalized avatar before or during the workshop?

7. How would you describe Edmodo to another teacher?

8. How would you describe Edmodo to an administrator?

9. What grade level should use an LMS like Edmodo? Why?

10. List at least one thing you will integrate in your teaching with Edmodo.

11. Explain one project-based learning unit that would be enhanced by using Edmodo.

12. How can your teaching improve because of Edmodo?

13. Which applications in Edmodo's Store do you foresee implementing in your teaching?

Part Three. Wish List. [On Edmodo site]

After browsing the Edmodo Store, please list applications you would integrate into your teaching. Please list reasons why you would use each application.

Observer Rubric (Modified from Thomas R. Gurskey's Five Levels of Professional Development Evaluation)

Evaluation level	What questions did the presenter address?	How will information be Gathered?	What is measured or assessed?	How will information be used?
1. Participants' reactions	The participants were enthusiastic. The presentation was coherent. The trainer was knowledgeable and responsive.	Edmodo was used to deliver the training.	Participant engagement.	To triangulate the self-assessment survey.
2. Participants' learning	Participants were seeking higher-order thinking applications (e.g., Edmodo Store) to engage with their students.	Analytics provided by Edmodo, including each user's personalized avatars, virtual classrooms, applications, and cloud-based libraries that were started during the workshop.	Application of new knowledge and skills that will be built upon after the workshop ends.	To ensure that Edmodo will be used to enhance learning, not be a substitute for pencil and paper delivery.
3. Organization Support & Change	Collaborative, blended and project-based learning is truly transformed by using Edmodo.	Analytics provided by Edmodo.	Virtual classrooms and projects that will be delivered on Edmodo.	To ensure that Edmodo will be used to enhance learning, not be a substitute for pencil and paper delivery.
4. Participants' use of new Knowledge and Skills	Participants take advantage of Edmodo's robust toolset, beyond using it an LMS.	Analytics provided by Edmodo.	SAMR Model of planned activities in Edmodo.	To ensure that Edmodo will be used to enhance learning, not be a substitute for pencil and paper delivery.
5. Student Learning Outcomes	Measureable growth (e.g., Student Growth Objectives) is planned.	Online gradebook in Edmodo, as well as authentic assessments (rubrics) for projects delivered on the portal.	SAMR Model of planned activities in Edmodo.	Edmodo should support higher-order thinking.

Evaluating the Professional Development Plan

No assessment of professional development can gauge the effectiveness of a training program unless it considers the way the training impacts teacher professional practice and

student learning outcomes (Guskey, 2014; Kreider & Bouffard, 2006; Mullins, Lepicki, & Glandon, 2010). As a result, the professional development evaluation plan that follows is based on the following objectives for participants (teachers) and students:

1. *Participants*. Teachers will design lessons that seamlessly infuse technology hosted by the Edmodo Earning Management System.
   Students. Students will use mobile devices during class to interact with and enrich learning content provided by the Edmodo Learning Management System.
2. *Participants*. Teachers will create technology-based learning activities that extend collaborative learning opportunities beyond the confines of the classroom and school day.
   Students. Students will use the Edmodo Learning Management System outside of school to extend learning beyond the walls of the classroom.

Based on these objectives, the evaluation plan will collect sufficient data to serve as evidence of goal achievement. Data regarding changes in teacher professional practice will be obtained from classroom walk-throughs using a rubric made available through the mobile application version of Edmodo, as well as the interviews that follow these walk-throughs. Additionally, teachers will complete anonymous written reflections describing both their use and their students' use of the Edmodo LMS. This reflective component will be delivered through anonymous Edmodo assessment that merely identifies which teachers have or have not completed the reflective form and provides the teacher reflections in bulk. Finally, the reflection data collection instrument will also include an anonymous affective component that gauges the teacher's attitudes and dispositions regarding the LMS.

Data regarding student usage will be obtained both via direct observation during teacher walk-throughs and through student questionnaires. These student questionnaires, also made available to students via Edmodo, will collect both informational data on LMS use, as well as affective data regarding student perceptions of Edmodo. Finally, Edmodo usage data will be obtained from user login records and other software generated informatics.

Data collected from the classroom walk through component of the evaluation plan is based on the Technology Integration Matrix (Florida Center for Instructional Technology, 2014). On one axis this matrix provides a framework for categorizing the degree to which technology is operationalized in the classroom, ranging from "entry" (technology used by the instructor for content delivery) through "transformational" (students use technology in creative and sophisticated ways to scaffold higher level thinking). Further, the second axis of this matrix categorizes the nature of the technological interaction as collaborative, constructive, authentic, etc. Using this matrix, observers can quickly gather rich information that characterizes the extent of LMS implementation, information that research shows can place a teacher on the continuum between novice and experience user (Florida Center for Instructional Technology, 2014).

The evaluation plan includes multiple sources of data drawn from all participants and their classrooms to provide a full picture of the effectiveness of the professional development, allowing triangulation to validate results. Making the evaluation documents available via Edmodo facilitates the periodic collection of data at reasonable intervals after the initial training session, as recommended in the research (Guskey, 2014; Kreider & Bouffard, 2006; Mullins et al., 2010).

Classroom Walk-Through Rubric Form

Type the appropriate score in the last column of this rubric as objectively as possible based on tangible evidence observed when walking through the participating teacher's classroom.

	Entry (1)	Adoption (2)	Adaptation (3)	Infusion (4)	Transformation (5)	Score
Active	Teacher uses Edmodo as another means of delivering conventional course material.	Students use Edmodo as directed by the teacher for ordinary, procedural tasks.	Student use of Edmodo is conventional in use, with method of application based on a combination of clear teacher direction and occasionally student self-determination	Students use Edmodo in conventional ways in ways that they determine for themselves.	Students use Edmodo creatively and extensively to support their work in class in ways that they determine for themselves.	
Collaborative	Students use the tools in Edmodo individually, with little collaboration peer-peer or peer-instructor.	Students use the collaborative tools of Edmodo solely as prescribed by the instructor only when instructed.	Students use the collaborative tools of Edmodo both when instructed and occasionally on their own as need to support class activity.	Students regularly use the collaborative tools built into Edmodo to communicate and collaborate in a productive way without instructor directive.	Student regularly use technology to collaborate with other teachers, students, and outside professionals/ content experts as an engrained part of the course culture.	
Constructive	Teachers use the tools of Edmodo to help the students construct new knowledge without student use of the LMS	Students use the Edmodo LMS to construct new knowledge in very teacher-directed, prescribed ways	Students construct new knowledge using the tools in the Edmodo LMS based on options and different learning opportunities pre-arranged by the instructor.	Students build knowledge through their own self-directed use of the Edmodo software.	Students use Edmodo in unique and create was to build knowledge.	
Authentic	Teacher uses Edmodo in a very structured way that is of little value other than organizing	The teacher uses the Edmodo LMS to support some teacher-guided authentic learning	The students use the Edmodo LMS to support authentic learning activities that are somewhat student	The students use the Edmodo LMS to in their own way to support authentic learning.	The students use the Edmodo LMS to facilitate completing a complex, novel authentic task that would otherwise be difficult to conceive of without	

	classroom material for teacher delivery.	activities.	directed and somewhat teacher directed.		the Edmodo LMS	
Goal Directed	Teacher uses Edmodo as a platform to post classroom objectives and standards alignment.	Teacher provides an online form or script for goal generation posted via Edmodo	Students use Edmodo to communicate their own learning goals based on instructor provided options.	Students set their own learning goals and document these goals using Edmodo to facilitate project/ activity continuation during the next class period.	Students use Edmodo to set and achieve their own collaborative learning goals regardless of time and location in a way that would not be possible with Edmodo	

Evidence of Student Use of Edmodo to Extend Learning beyond the Classroom

Complete click the appropriate response to indicate the degree to which the following were observed:

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Students clearly used Edmodo outside of class to find information about an assignment, concept, or idea.	1	2	3	4	5
Students clearly used Edmodo outside of class to practice or extend their learning of an idea previously taught in class using interested web simulations, articles, or instructor generated media.	1	2	3	4	5
Students clearly used Edmodo outside of class to learn an entirely new idea or concept via an instructor generated lesson that may or may not include links to useful web materials.	1	2	3	4	5
Students clearly used Edmodo outside of class to collaborate peer-peer on ideas or concepts discussed in class.	1	2	3	4	5
Students clearly used Edmodo outside of class to collaborate with the instructor in an instructor directed lesson.	1	2	3	4	5

Teacher Written Reflection Form

Please type you response to each question as clearly and honestly as you can. Your responses will remain anonymous in the Edmodo system.

Description of LMS Uses

1. List and briefly describe how you have used the Edmodo LMS during the class period.

2. Briefly explain how the Edmodo LMS has changed (or not changed) your teaching practice in the classroom.

3. List and briefly describe how you have used the Edmodo LMS to extend educational opportunities outside of the confines of the classroom?

3. Briefly explain how the Edmodo LMS has changed (or not changed) your students' experience of homework.

Degree of Implementation

5. During the typical academic week, how frequently do you use the Edmodo LMS during class time?

6. During the typical academic week, how frequently do your students make use of the Edmodo LMS outside of class time?

Student Perceptions

7. Explain how you perceive your students response to the use of the Edmodo LMS in class.

8. Explain how you perceive your students response to the use of the Edmodo LMS for activities that are completed outside of class time.

Teacher Written Reflection Form, continued

Please click on the most appropriate response based on your current feelings about the statements below:

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
9. In class I primarily use Edmodo to illustrate concepts, introduce media, or disseminate information.	1	2	3	4	5
10. In class I find that I use Edmodo during explanations more than students use Edmodo during independent or group work.	1	2	3	4	5
11. I find the technology LMS technology challenging to use.	1	2	3	4	5
12. The Edmodo LMS is effortless to integrate into classroom instruction.	1	2	3	4	5
13. Students seem better engaged in classwork and lectures when supported by the Edmodo LMS.	1	2	3	4	5
14. Students are more likely to do homework when it is an extension of a classroom activity or discussion facilitated by the Edmodo LMS.	1	2	3	4	5
15. There is no change in the degree of student participation during class as a result of the Edmodo LMS.	1	2	3	4	5
12. The Edmodo LMS is effortless to integrate into classroom instruction.	1	2	3	4	5

Student Data Collection Instrument

Please click on the option that best describes how you feel about the statements below:

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1. During class my teacher uses Edmodo more than I use it.	1	2	3	4	5
2. My teacher uses Edmodo to show ideas and concepts in ways that wouldn't be possible without it.	1	2	3	4	5
3. I feel like I am better able to learn course material because my teacher uses Edmodo.	1	2	3	4	5
4. Most often in class I use Edmodo more than my teacher.	1	2	3	4	5
5. I use Edmodo at home primarily to see my homework and download assignments and nothing else.	1	2	3	4	5
6. Edmodo allows me to discuss ideas and concepts from class online where I have more time to think through my response.	1	2	3	4	5
7. My teacher provides clear lessons with videos of them teaching so that I can learn information from home.	1	2	3	4	5
8. I would prefer to be in a class where the teacher uses Edmodo to a traditional classroom where the teacher does not use Edmodo.	1	2	3	4	5

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