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Summer 7-29-2021

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Murray, Mary Clare, "Using the Modern Classrooms Project Instructional Model to Address Post-Covid Challenges in the Classroom" (2021). *Theses, Student Research, and Creative Activity: Department of Teaching, Learning and Teacher Education*. 129.

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**Using the Modern Classrooms Project Instructional Model  
to Address Post-Covid Challenges in the Classroom**

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TEAC 889: Masters Seminar

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July 29, 2021

### **Abstract**

The trauma and upheaval that students and families suffered due to the Covid pandemic will impact the classroom in the 2021-2022 school year in two significant ways: in the uncertain social-emotional health of students and in the dramatic disparities in their recent learning experiences. What is the most effective method for teachers to address these issues during instruction? The Modern Classrooms teaching method emphasizes self-paced, mastery-based, blended learning that could be a successful method to address post-Covid challenges in the classroom. This paper refers to studies that show the success of each of these instructional aspects: self-paced, mastery-based, and blended learning (which includes recorded instruction). It then provides an introduction to the Modern Classrooms Project, as well as an example of lessons based on that instructional model for a World Language classroom.

## **Using the Modern Classrooms Project Instructional Model to Address Post-Covid Challenges in the Classroom**

While many teachers, students, and families are looking forward to full-time instruction in the fall of 2021, our schools will continue to face challenges brought on by the Covid pandemic. The isolation, confusion, fear, and even trauma suffered in the past 17 months have left mental and emotional wounds on our students that we as teachers will need to navigate and address at some level.

A less critical issue, but one that will affect teachers more consistently, is that our students will be coming back to us after more than a year of unreliable, interrupted, and inconsistent learning. Few students will have had 5 days a week of in-person learning; some will have had only virtual learning; and some will have had any imaginable combination, including my own worst-case scenario and personal experience of meeting one day each week, combined in-person and virtual.

How can teachers make the best use of instructional time to address the increased social-emotional issues and the disparate learning experiences of our incoming students?

One method of instruction that has the potential to allow teachers to address these significant challenges is illustrated and promoted by the Modern Classrooms Project (MCP). The MCP website claims that “[they] lead a movement of educators in implementing a self-paced, mastery-based instructional model that leverages technology to foster human connection, authentic learning, and social-emotional growth” (Modern Classrooms Project, 2021, Mission section, para. 1).

MCP was founded by two teachers, Kareem Farah and Robert Barnett, both high school math teachers at a Title 1 school in Washington, D.C., in 2017. They agreed that the diverse

experiences and skills of their students made traditional lecture-based instruction ineffective for the majority. Together they developed a model that allows students to interact with material at their own pace and frees teachers to spend more time one-on-one with students (Modern Classrooms Project, 2021, Our Story section, para. 1).

### **Reports on the Effect of the Covid Pandemic on Mental Health and Learning**

That there is a current crisis in adolescent mental health has been shared anecdotally by teachers and counselors who have been lucky enough to have continued interacting with students in the last year. But in those areas where schools remained closed, teachers and counselors, often first point-of-contact for students in need of intervention (Whelan, 2021), have not been easily able to assess students' well-being. This circumstance can only lead to crises when more students than ever admit to feeling that they could benefit from student-based mental health services (Prothero, 2021).

The Wall Street Journal recently ran two stories reporting on adolescent mental health, which included these alarming statistics for 12- to 17-year olds in California, where most schools remained closed throughout the 2020-2021 school year:

- emergency-room visits for mental-health crises increased 31% between 2019 and 2020
- emergency-room visits for suspected suicide attempts rose 22% last summer compared with the previous year, and 39% this past winter compared with the previous winter (Whelan, 2021).

And for a wider age-range of children, the Children's Hospital Association claimed a 75% increase in the need for emergency mental-health resources from the previous year (Gandhi & Noble, 2021).

Even with this summer's lifting of lockdowns around the country and plans for a return to a normal school year for 2021-2022, these mental health issues are concerns that will persist and that will demand teachers' attention during the school day.

An additional complication requiring teachers' consideration next year will be an increased disparity of students' learning experiences. A report by the global management consulting firm McKinsey & Company holds that American students could have lost as many as 5 to 9 months of learning since our schools closed in March 2020. Within this range white students fare better, as students of color traditionally have less consistent school experiences, which leaves our most vulnerable students missing up to 12 months of learning (Dorn et al., 2021).

Learning experiences within schools varied considerably, again by community: disadvantaged students within a school, especially Black and Hispanic, were almost two-times more likely to have difficulties learning because of lack of devices (such as laptops or smartphones) or internet connectivity issues (Middleton, 2020; Dorn et al., 2021).

In addition to obstacles regarding students' ability to learn, teachers in disadvantaged districts, particularly high poverty districts, reported spending up to 50% less time teaching each day during the Covid shutdown, while teachers in advantaged districts taught as much as 30% fewer hours (Herold & Kurtz, 2021). Understandably, engagement among students across the board dropped significantly, as reported by teachers and students themselves (Bushweller & Lloyd, 2021; Herold & Kurtz, 2021).

These disparities will have long-lasting impacts: the Secretary General of the United Nations called the effect of the Covid pandemic on schooling "a generational catastrophe" (Gustafsson, 2021, p. 3). A report from UNESCO confirms that learning losses among disadvantaged students, in any country around the world, can be expected to be more severe than for advantaged students (Gustafsson, 2021, p. 3). And if we consider that disadvantaged

students will not be able to make up for this lost learning as quickly as the advantaged, students in middle- to low-income countries could be as far as 1.5 years behind by 2027 (Gustafsson, p. 23).

### **Literature Review: The Role of Teachers in Addressing Social-Emotional Health**

The role of the teacher in improving students' social-emotional health will be crucial this coming year. The Economic Policy Institute, in a study titled "COVID-19 and Student Performance, Equity, and U.S. Education Policy," concluded that 1) "the coronavirus crisis created serious challenges to students' well-being and development that require a response focusing on their social and emotional learning, health, and well-being" and 2) "through their positive relationships with students, ... teachers can contribute to the social and emotional learning of students" (Garcia & Weiss, 2020).

A pre-Covid study of teacher-student relationships, albeit in younger grades, puts the teacher-student relationship most clearly: "The better the relationships pupils reported, the better their psychological well-being, the higher their positive self-esteem and the lower their negative self-esteem" (Sarkova et al., 2014, p. 372). Another study notes "that high-quality emotional climate in classrooms may have beneficial effects for all children and particularly protective effects for children with existing behavioral, academic, or contextual risks" (Rucinski et al., 2018, p. 993). The same report, which focused on primary grades, also suggested that "educators should be trained and supported in building and maintaining positive relationships with all their students ..., rather than concentrating increasingly and exclusively on academic instruction" (Rucinski et al., p. 1000). Not only do these relationships improve social-emotional health, but teacher efforts in this area also significantly improve student engagement and achievement (Spilt et al., 2012, p. 520).

Teacher interaction establishes positive relationships between teacher and student, but also within the classroom — the “emotional climate in classrooms” mentioned by Rucinski, above. The Sarkova study “found that relationships in school are strongly related to psychological well-being and self-esteem among adolescents” (p. 373). This emotional climate can be improved in this way, even among university students according to a study in Taiwan: “teachers should give students positive and suitable academic expectations and support, as well as be concerned with the learning conditions of the students to help them learn; at the same time, teachers should also encourage students to understand and assist each other (Hong et al., 2020, p. 459).

### **Literature Review: The Effectiveness of Self-Paced Instruction**

Considering the extreme learning disparities that we will be encountering in classrooms next year, it will be essential for teachers to adjust instruction to meet students’ varying needs. In the World Language classrooms at my suburban, private high school, this fall we expect to welcome some students coming to school for the first time since March 2020, while other students will be coming for five days in-person for the first time since then, and still others will have had full five-day in-person instruction for the 2020-2021 school year. The need for differentiating instruction next year goes beyond modifying our usual lessons to address different learning styles: we need to restructure our methods to allow each student to engage with material from his/her own starting point and at his/her own pace.

The McKinsey report on learning-loss during Covid recommends “integrating best-practice personalized, blended learning to help students master content” (Dorn et al., p. 9). The Economic Policy Institute similarly recommends that “teaching and assessing children needs to be done within a framework that understands that each child may have learned differently and may have learned different things. ...[I]t will be critical to create more personalized instruction” (Garcia & Weiss). UNESCO suggests an even more dramatic approach called Teaching at the Right Level,

referred to as TaRL. This is an approach widely used in developing countries to address learning disparities by grouping students by ability rather than age or grade and providing self-paced instruction with frequent mastery-based assessments (Gustafsson, p. 24).

Self-paced learning as an instructional tool has great potential in our post-Covid classrooms. Self-paced learning is a method that allows teachers to frame lessons in such a way that students can work through them at their own pace, reviewing what they find difficult and skipping over what they understand. One of the benefits of self-paced learning is a reduction of stress (Weng, 2015), which suggests that this approach will do more to build students' social-emotional health in the coming year. Weng also found that self-paced learning increases productivity, particularly crucial for students who have gone without effective instruction the past many months (Weng, 2015). Because of its emphasis on student autonomy, self-paced learning has been shown to improve motivation, which in turn improves student achievement (Linnenbrink & Pintrich, 2002, p. 323; Slunt & Giancarlo, 2004; Roick & Ringeisen, 2018). Self-paced learning also leads to self-efficacy, which means students "are more likely to work harder, persist, and eventually achieve at higher levels." (Heslin & Klehe, 2006; Linnenbrink and Pintrich, p. 316; Roick and Rieneisen).

### **Literature Review: The Effectiveness of Mastery-based Assessments**

As the UNESCO study stated, mastery-based assessments play a critical role in self-paced instruction (Gustafsson). While students work independently within a unit, clearly teachers need to assess different students at different points. So brief formative assessments allow students to demonstrate mastery of unit material, and only then do they move forward to the next unit.

For those students who are not able to prove mastery, however, the practice of revision is also an integral part of mastery-based instruction. If a student completes the assignments within a unit but fails to show mastery on an assessment, s/he is encouraged to revise his/her work. This often requires reviewing earlier assignments or completing new ones before a second attempt at the assessment, so that the focus is on actual learning and mastery of the material.

One researcher summarizes the method in this way: “Mastery-based testing is a system in which students are tested (and retested) on learning objectives for the course and then are graded primarily by the number of learning objectives that they master over the course of the term. Students are thereby encouraged to learn from their mistakes (possibly also to embrace growth mind-set), since there are multiple opportunities for success, and the one thing that truly matters is mastery of the material by the end of the term” (Linhart, 2020, Introduction section, para. 4).

The “growth mind-set” mentioned above refers to an emphasis on learning in which “students believe their talents can be developed ... through hard work, good strategies, and input from others.” (Dweck, 2016). This goal for learning is prioritized above the goals of accomplishment or performance because of its positive behavioral and cognitive effects. Linnenbrink and Pintrich reported the following in their studies of junior high school students:

“[M]astery goals have been positively related to cognitive strategy use and self-regulation as well as performance. These studies have shown that junior high students who report higher levels of mastery goals are more likely to use elaboration and organizational strategies as well as to be more metacognitive and regulating” (p. 321).

Interestingly, this explanation was given within a study of motivation and its correlation to student success. Additional factors increasing students’ motivation are autonomy, as in allowing students

some choice of material and pace, a policy of encouraging revision of their work (Linnebrick & Pintrich, p. 323), and offering short-term goals for students to prove their mastery (Ames, 1992, p. 264).

### **Literature Review: The Flipped Classroom Model**

We have seen that self-paced instruction, in conjunction with mastery goals and a classroom emphasis on revision, leads to increased student motivation and a growth mindset. The greatest challenge in a self-paced model, however, is in presenting new material to students. How does an instructor introduce the next unit's material for advanced students when slower classmates are still working through the previous unit? Waiting for classmates to be ready leaves more accelerated students wasting precious instructional time.

This challenge can be addressed by using recorded presentations of new material. Rather than a teacher using class time to present information, students access videos provided by the teacher that introduce and explain the target material. Students can access these videos and replay and review the new material at their own pace.

The use of pre-recorded material is the basis of an instructional model called "the flipped classroom." The "flipped" aspect refers to work that is being done at home versus work that is being done in the classroom: traditionally new material is presented by the teacher during class time and homework is for practice and mastery; in a flipped classroom, homework (or independent work) is dedicated to studying new material via videos, while class time is spent practicing and mastering that material.

Jonathan Bergmann, who is credited with constructing and promoting the application of the flipped classroom model, points out that, while some may think video instruction is impersonal,

the “benefits ... are profoundly human: I now have time to work individually with students. I talk to every student in every classroom every day” (Tucker, 2020). Additionally, rather than interacting most with the strongest students, which is the typical classroom dynamic, Bergmann relates that he spends more time working with struggling students while advanced students work ahead independently. He contends that the flipped classroom model fosters “better relationships, greater student engagement, and higher levels of motivation.” (Tucker) .

Other researchers and practitioners of the flipped classroom model have reported the following benefits, which really represent a litany of teachers’ greatest objectives (Weng; Wells, 2016; Treglia, 2000, p. 41):

- improved student engagement
- improved academic skills
- improved student self-efficacy
- improved participation among traditionally marginalized groups
- improved knowledge retention
- improved student outcomes

### **Modern Classrooms Project**

The Modern Classrooms Project promotes an instructional method based on these proven practices: self-paced instruction, mastery goals, and encouragement of revision. Its backbone is video presentation of new material. MCP recommends teacher-produced videos, even including a camera frame of the teacher interacting with the presentation, to maintain a student-teacher connection even through the technology. Videos should be brief, between six and nine minutes, highly focused on one objective, and as with any good presentation, include minimal text and incorporate animation (Modern Classrooms Project).

Additionally, the videos are insufficient without required student reaction to the lesson. This can be collected via guided notes on paper, google form worksheets, or uploading the video to EDpuzzle and allowing students to engage with material in that manner (Modern Classrooms Project).

While students engage independently with new material, the teacher is free to move through the class, addressing individual and group needs as they arise, what MCP refers to as “cloning” the teacher (Modern Classrooms Project). As noted above, the attention that teachers are able to provide individual students plays a critical role in improving social-emotional well-being of students as well as the emotional atmosphere of the classroom.

Early in its inception, the Modern Classrooms Project partnered with the Johns Hopkins School of Education to conduct a control study of MCP practices in comparison to traditional classrooms. When teachers are free to interact with students during class, rather than spending time presenting information, the reported effect was significant: 89% of MCP teachers feel they are “able to effectively serve students at all levels of understanding,” versus 44% of control teachers (Modern Classrooms Project). Even more telling, 86% of MCP teachers feel that they are “able to work closely with each of [their] students during class,” versus 19% of control teachers (Modern Classrooms Project). More students also reported having “good” relationships with their teachers in MCP classrooms than in control (71% vs. 65%). And in regards to classroom management, which affects the interactions between students that build the emotional atmosphere, a stunning 100% of MCP teachers report being able to manage student behavior, compared to 78% in traditional classrooms (Modern Classrooms Project).

So while it could appear a contradiction to claim more personal engagement in a model that relies on the technology of recorded teacher presentations, it is exactly the “leverage of

technology” that gives teachers the freedom to strengthen the “human connection” (Modern Classrooms Project).

In addition to improving social emotional health, individualized attention from a teacher “also functions as a catalyst to accelerate learning” (Dorn et al.). Couple this with the constant access students have to recorded lessons, which results in 100% of teachers reporting that they can “easily help students catch up” who have missed class (Modern Classrooms Project), and the impact on progress in learning will be substantial.

### **A Unit in the Modern Classrooms Model: German 2, Introducing the Conversational Past**

MCP is a quickly growing movement with many modes for assisting teachers to apply the method in their own classrooms. I completed the Modern Classrooms Essentials on-line course (Appendix A), listened to several MCP podcasts and webinars, and participated in a MCP Facebook livestream discussion. I did not go so far as to sign up for a virtual mentorship.

The most frequent concerns about the application of MCP regard the implementation of mastery checks, how to form a gradebook around the MCP model, and how to streamline the work to lighten the teacher’s burden (MCP, 2021). Those have been my greatest concerns as well, and I will not know if I have properly addressed them until I actually teach using the system that I have devised.

All instructional materials for my MCP unit are linked in the following explanation and also included in Appendix B.

My introduction to my unit is part of [this Google Slide presentation](#). In the first slide I link to an EDpuzzle of my presentation of material, which includes a few questions to check for

students' comprehension and to ensure they view the video. I did take to heart a recommendation by MCP that teachers not spend time trying to make a perfect video! Mine is far from it, even after several takes.

The slides that follow the EDpuzzle link include additional links to assignments based on the new material. I purposely consolidated the unit into one Google presentation so that students can find all of the assignments in one place. Most of the assignments are digital. In this case there are several Google Form "worksheets" and a Quizlet vocabulary set. The speaking assignments are Google Documents, some of which require use of Voxer, a recording app I have used for several years and which I ask my students to download to their phones.

Assignments within MCP are categorized in a unique way. Following the review of recorded new material, students proceed through "must do," "should do," and "aspire to do" assignments. (These are the labels MCP proposes, but many teachers use their own to denote similar levels.) This delineation allows for advanced students to delve more deeply into material and offers goalposts for less-advanced students to strive toward.

I have arranged my slide presentation in these categories, which I have labelled "Ihr müßt!" "Ihr sollt!" and "Könnt ihr?" I like these labels because they remind students of the use of modal verbs, and the most challenging assignments are in fact presented as a challenge; I also have the "Könnt ihr?" assignment directly on the slide rather than linked, to tempt more students to look into it.

After students review and practice new material, mastery checks are administered. These are brief formative assessments and in a World Language setting could be written or oral. Because they are done independently during class time, when the teacher may not be able to administer them personally, students either fill out the mastery check worksheet, or in the case of oral assessments, record their responses so that teachers can evaluate them at a later time. The

timely grading of mastery checks is essential, both for encouraging students and to allow for revision, so these checks should be kept brief, focusing only on information that is essential to prove mastery.

My system includes two mastery checks, which I call “Meisterproben,” [one after the “Ihr müßt!”](#) and [the other after the “Ihr sollt!”](#) sections. I did not include a mastery check after the “Könnt ihr?” because I think that assignment might serve as a mastery check in and of itself. This is one of the aspects of my system that I know I may reconsider during teaching. Because mastery checks are assessments, students do not have access to these. I would print these out and have students sit in one area of the room to finish these independently.

In order to be aware of where each student is within any given lesson, Modern Classroom teachers use progress trackers. These can be public trackers, posted for all students to see, or private for students’ own direction. In this manner students can be grouped for collaboration according to pace. Trackers also serve to encourage students and provide accountability for both students and teachers.

My [progress tracker](#), which I called “Wegmarkierung,” is a digital tracker for an individual student. I am not comfortable using a public tracker, in which students see where their classmates are in the unit. Even if it were anonymous, I think it would add an unnecessary sense of competition for getting work done quickly rather than well among the better students, and despair among the slower. On my tracker I show students what percentage grade they would receive based on the work they complete. This is a common method in MCP and seems to make sense, but is another aspect I will reconsider as I teach. I envision checking students’ work daily (thus the short, digital assignments) and updating their individual work directly on their tracker, which we will share.

While the MCP model has been successfully applied across the curriculum, there might be particular concern regarding the self-paced learning in a World Language classroom, which depends so much on communication and trusting relationships, between teacher and students and between students themselves.

Students working independently in the self-paced model are not necessarily working alone. The review of the pre-recorded presentation of material is independent, but then students are encouraged to practice the material by working through assignments with others who are at the same point in a lesson, or even with the guidance of students who are further ahead. Classrooms are divided into learning groups, to encourage collaboration and communication. I have included speaking assignments in each level of the unit to require interaction and to emphasize communicative proficiency. It is also recommended by MCP that each class starts with, or at least includes, a whole-class exercise. Whether this is a review of work from an earlier day or used as conversational practice, the effect is building a cohesive and supportive atmosphere in which students feel comfortable working at their own pace.

A self-paced classroom still has to adhere to school calendars, so no class can be fully self-paced. Formative assessments (mastery checks) may be taken at different times by different students, but summative assessments are still to be expected at the end of a unit. Given the frequent mastery checks, time for revision, and the availability of recorded teaching materials for review, students are more likely to be successful on summative assessments.

One of the advantages to be found in the MCP model is a direct result of perhaps its disadvantage: the freedom from in-class presentations which allows teachers to interact more with students comes at the cost of the added preparation required in planning and pre-recording those presentations. This time-consuming step could be enough to deter some teachers from applying the model to their established plans. But Kareem Shah, one of the founders of MCP,

convincingly explains the result of that pre-planning by admitting that, prior to MCP, he felt anxious before classes because students' comprehension and behavior were unpredictable and hard to prepare for in a traditional lesson plan. "Everything felt fragile and it led to an increase in anxiety for me and the students" (Arnett, 2019). Describing a lesson plan as "fragile" is particularly significant. Certainly every teacher is familiar with the post-presentation sense of frustration or even despondency when the lesson did not reach students or provide the results we had anticipated. If that can be avoided by the investment of time into recording lessons and conducting the "managed chaos" of the self-paced setting, while also alleviating the teacher's and students' anxiety over new material, that is yet another reward to be gained in the implementation of the MCP model.

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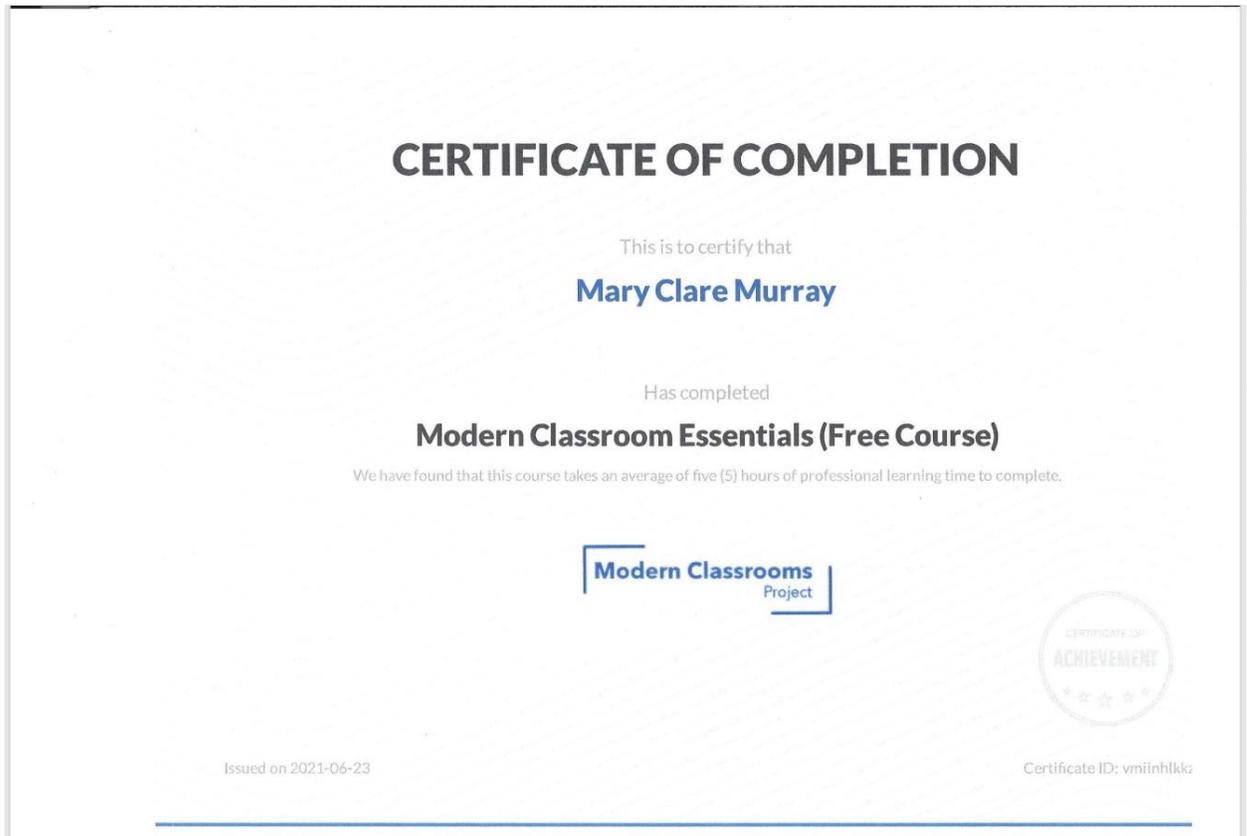
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## Appendices

### Appendix A



### Appendix B

[Lesson slides](#)

[Progress tracker](#)

[Ihr müsst Mastery Check](#)

[Ihr sollt Mastery Check](#)