

Meeting Learners Where They Are:

Using Microsoft Forms to Drive
Improvement in Learning Outcomes



Executive Summary

This study was designed to explore how teachers are using Microsoft Forms to drive student learning outcomes in primary and secondary school classrooms. A total of 22 teachers—both experienced and novice Forms users—participated in a Skype interview about how they use Forms in their teaching. The findings indicate that teachers are using Forms in pedagogically substantive ways to improve student outcomes, to individualize instruction, and to innovate in their teaching through more student collaboration and social and emotional learning. Teachers also used Forms for professional learning and to increase their efficiency with administrative and routine teaching tasks.

In addition, because of its streamlined design and ease of use, teachers were able to create a Form for their students and get started within a matter of minutes. This report provides concrete examples of teachers' use of Forms and describes their support needs for starting to use this tool in the classroom. School leaders and instructional technology coaches can also use this paper to inform implementation plans and training on Microsoft Forms.

"There was that magical moment when getting the data happened. Like, oh my gosh, we're getting this data in Forms in real time and that was unheard of before, you know? Now within a matter of minutes I know where my students stand on the concepts that we're going to cover that day."

- 3rd Grade Teacher

Introduction

Teachers around the world seek ways to know their students and how those students learn best. An effective educator recognizes that students are different and will approach instruction in a way that embraces and supports learner variability. This variability includes all students regardless of where they happen to be in their learning path. Any instructional practice or technology that enables teachers to meet students where they are creates an immersive and inclusive environment that supports students' growth and inspires lifelong learning.

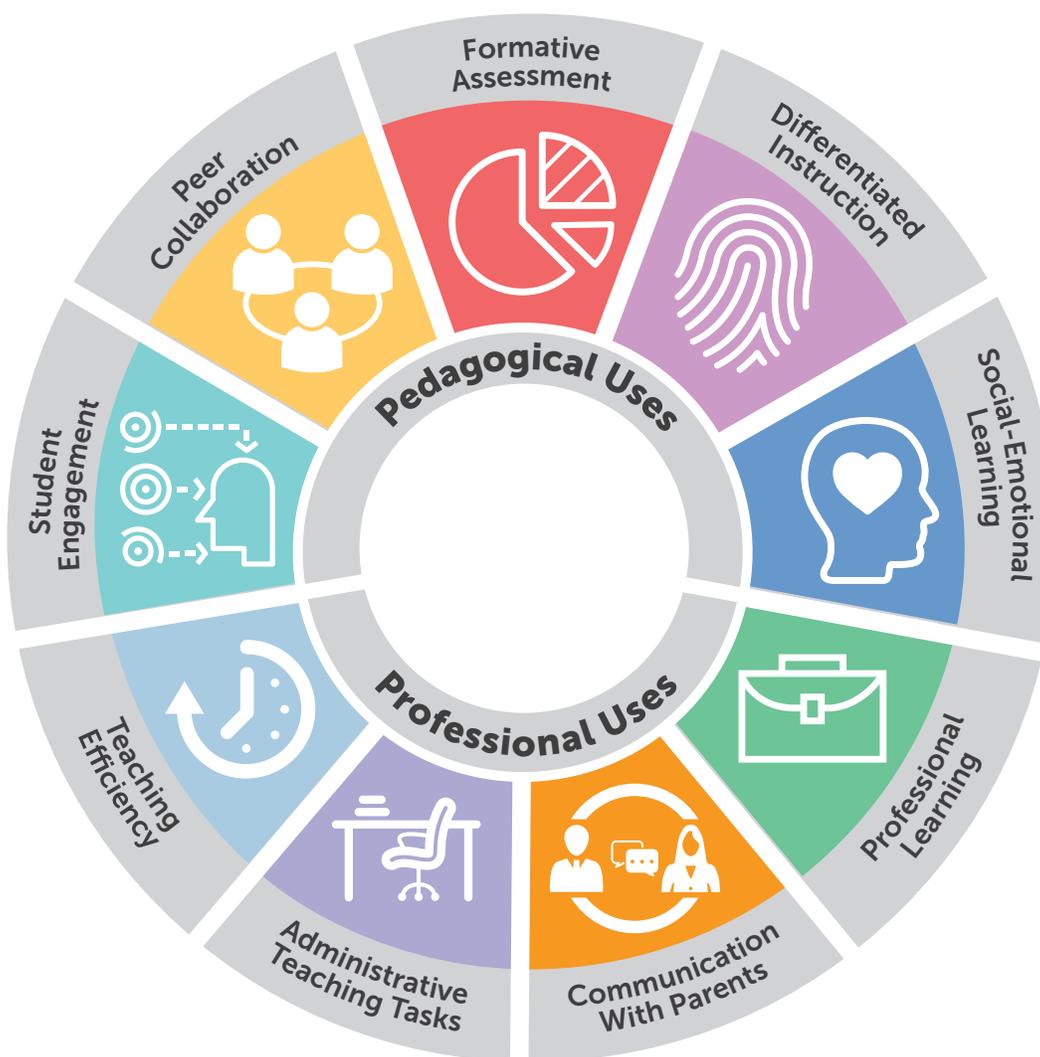
The goal of this study was to learn how teachers were using Microsoft Forms to provide students with a learning experience that was more adapted to their individual needs. We interviewed twenty-two teachers from four countries (U.S.A., Australia, Canada, and Scotland) about the different ways that each used Forms in their teaching. The teachers taught different grade levels, and five also had a technology support coach position at their school or district. The teachers also varied in their previous use of Forms; while 18 had used the tool extensively in the past, four had never used it prior to the study. To learn

how teachers were using Forms we conducted 30-minute Skype interviews to ask questions about their experiences, motivations and challenges related to using Forms. Interview data were synthesized into categories of "Forms Use Types" that characterized the different ways in which teachers used Forms with their students. We also wanted to learn how teachers became aware of online tools for their instructional practice, as well as their support needs for deep and sustained use.

Key Findings

The twenty-two teachers in the study used Forms in different ways and for different purposes. In their interviews teachers described using Forms to fulfill specific pedagogical and professional purposes. These purpose-driven descriptions cut across user type—that is, both experienced Forms users and those using it for the first time described their use of Forms in these terms.

Categories of Forms Use Types



Teachers' **pedagogical uses of Forms** were student-focused in the sense that they directly impacted how students experienced learning in terms of individual and group activity structures, assessment design, subject content, and socio-emotional interactions. These pedagogical uses of Forms in this study fell into five distinct categories: formative assessment, differentiated instruction, peer collaboration, social emotional learning, and student engagement. In their interviews, all twenty-two teachers described using at least one—and usually three or four—of these pedagogical uses of Forms.

Teachers' professional responsibilities go well beyond the classroom. As learning professionals, teachers must participate in

a variety of activities that span curriculum development to lesson planning, to preparation for out-of-school-activities, to parent-teacher conferences, and other tasks. In this study, teachers' **professional uses of Forms** included aspects of the teaching profession such as communicating with parents, improving teaching efficiency, completing administrative teaching tasks, and for professional learning.

The description of Forms Use Cases that follow provide concrete examples of the pedagogical and professional purposes for which teachers used Forms. School and system leaders can use these examples to train and support their teachers in using Forms for powerful purposes.

Pedagogical Uses Of Forms

Formative Assessment

Formative assessment is among the most effective instructional practices for improving student learning.



When used consistently, formative assessment can lead to greater learning outcomes than other learning interventions such as increasing teachers' content knowledge or reducing class size.¹ At the heart of formative assessment is the underlying goal of **meeting students where they are** in their learning. Technology tools like Forms can help educators make "in-the-moment" instructional adjustments by providing them with real-time data on student performance. There are many kinds of assessments that educators use in the

classroom—what makes them "formative" is when the information from the assessment is used to adapt the instructional approach to meet students' learning needs.

All the teachers with previous experience using Forms described ways of using assessments for formative purposes. One middle-school teacher, for example, uses a Forms poll or survey at the beginning of a new unit to do a rapid comprehension check of her students' current understanding on the topic. At the

¹ Black, P., Harrison, C., Lee, C., Marshall, B., & William, D. (2002). Working inside the black box: Raising standards through classroom assessment. *Phi Delta Kappan*, 86(1), 8-21.

high-school level, a teacher explained how he uses Forms regularly to provide in-the-moment feedback to students. He added that his students enjoy Forms because as soon as they complete an assessment they review it question-by-question as a class. If a large percentage of students missed a question the teacher will spend a proportionate amount of time reviewing the question as a class. Another teacher described a similar use of Forms but at the beginning of every lesson: "Right now in math we're working on fractions, so I'll ask them a little fraction question. Then the same thing with the language arts—before we start [a lesson] I'll ask them a little language arts question." In all cases the teachers described sharing the data collected from Forms with their students to reinforce their learning.

Forms wasn't only used to provide immediate feedback. A middle-school teacher from Scotland uses Forms for longer-term

instructional planning. He explained in his interview that he uses a Forms assessment to shape what they call in the UK their "medium-term plans" for planning series of lessons over the term. He uses Forms in his class "to scope out what I'm going to teach and what I'm going to cover." In the U.S., an elementary school uses Forms to track the progress of an entire grade level. A third-grade teacher from this school explained how Forms was used for a test called "Common Formative Assessment" that every third-grader takes. She added that they use Forms because it graphs the data for them and provides visual summaries at a glance. The teachers meet every six days to review data and compare student performance across classes: "By giving students the same five questions, we're able to see what students' strengths and weakness are with a particular standard."

1. In what year did Voyager 1 fly by Saturn's moon Titan? (5 points)

75% of respondents (6 of 8) answered this question correctly.

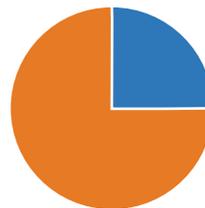
[More Details](#)

● 1979

2

● 1980

6 ✓



Example of easy to use Form

"I'll give a Forms quiz before a topic to get an idea of what students already know and use that to inform my teaching. I can then make any adjustments to my lessons to make them more appropriate for my students."

- Elementary Teacher

Differentiated Instruction

Teachers' use of Forms for formative assessment paved the way for providing students with instruction that was differentiated for their individual learning needs.



Effective educators recognize that their students are not all the same and adjust their instruction accordingly. There are many ways a teacher can differentiate instruction for students. For example, a teacher may choose to group students by ability level for assignments, design a lesson based on learning style, or group students according to shared interests. The key to any differentiated instruction is that it factors in students' individual levels of readiness when planning lessons and assignments. The variability that differentiated instruction provides is more inclusive, as it benefits students who may have a learning disability or those considered high achievers.

The teachers in this study described how Forms helped them differentiate instruction. One high-school teacher from Scotland used the results of a Forms assessment to create student working groups. If there was a wide spread of answers across the class he would group the top and middle-level pupils together so that the top students can provide

support to the middle-level students. The teacher would then work directly with the lower achieving students who may have found the content more difficult. He added that if only a small number of students hadn't done well on a question, he might have the rest of the class move on with the lesson while he modified the content for the smaller group.

Forms was also used to accommodate students in the Individualized Education Program (IEP) used in the United States. A high-school teacher in the U.S. meets the accommodations of his IEP students by making modified versions of his assessments. He starts by making a test or quiz on a subject for his larger class using Forms. After making a copy of that assessment he then removes or modifies individual questions based on particular specifications needed for IEP. "If an IEP requires students to have less answer choices or less questions," he explains, "I remove some and send the IEP students the modified copy instead of the original one."

"...if there's a small group of students who haven't done well on a question I'll send the rest of the class moving on with something else and tell the small group that we're going to work on that problem question together."

- High School Teacher

Peer Collaboration

The goal of educational software is not to simply put technology in students' hands, but to transform their learning experience through developing important 21st century skills such as communication and collaboration with peers.



Collaboration benefits students through their coordinated efforts to construct and maintain a shared understanding of a problem.² When students work on a joint product, they must engage in processes that require the negotiation and renegotiation of meaning. Technology has pushed the boundaries of collaboration by expanding the kind of exchanges that can occur and through increasing access to community knowledge.

A rich example of how teachers used Forms for collaboration is through the development and taking of peer assessments. One elementary teacher from Scotland described a math activity where students created their own quiz after a lesson about shapes. Students were asked to work in small groups to write

questions that assessed their knowledge of shapes. Students learned not only through taking each other's quizzes, but through creating the answer options in their groups. She explains, "The very first time we did it, students had a question, 'How many sides does a square have?' The correct answer was four, of course, but their other three options were numbers like 100, 200. I had to stop them and explain that we do a quiz when we want to test people. If they have options of 4, 100, 200 it's going to be pretty obvious what answer's going to be. So, they talked about what other kinds of real answers there could be, and they decided to put in more sensible numbers. I didn't plan on that part, but it ended up being a really good part of the lesson."

Social-Emotional Learning

All students need a safe and trusting environment for their learning.



When students are dealing with social, emotional or behavioral challenges it can impact their learning experiences and chances for school success. Social-emotional learning has been described as one of the non-cognitive abilities that are essential for supporting personal and academic success.

The social-emotional habits and skills that are developed begin in childhood and remain important throughout one's life. These include the ability to identify and communicate one's own feelings, control one's behaviors, feel empathy for others, and form positive relationships with peers and adults.

² Roschelle, J., & Teasley, S. D. (1995). The construction of shared knowledge in collaborative problem solving. In C. E. O'Malley (Ed.), *Computer-Supported Collaborative Learning* (pp. 69-197). Berlin: Springer-Verlag.

Social-emotional learning requires open lines of communication between students and teachers, but the large class sizes that are typical of many schools can make it difficult for educators to hear the individual voices of their students. One elementary teacher in the study described how he used Forms to overcome this challenge so he could inquire into his students' emotional well-being. Every morning, he explained, he sends a single open-text question to his students that asks, "How are you feeling today?" He added that students were usually very open about their feelings, and shared life experiences that took place both at home and on the playground. He believes that students feel safe communicating this way because of the peer anonymity that Forms provides. Instead of approaching a student during class time, he can follow-up with a student at any point during the day. For this teacher, the fact that he could hear from all his students was one of the invaluable aspects of Forms: "Before we would have go talk to the kids and we would

never be able to hear every single kid—you just can't when there's over 30. We would never get everyone's voice, we would just get as many as we could in a day. Now, within a matter of minutes at the beginning of a day I already know how they're all feeling."

Forms was also used to encourage students to engage in self-reflection through an exit ticket activity. After finishing a unit, the students of a middle-school teacher use Forms to answer questions about learning such as, "What are some if the things you've learned about this topic?" and "What are some things you still want to learn?" Students' benefit from this kind written self-reflection in several ways. When students think about what they learned they recollect not only the content that was taught but also how they felt during the learning process. In doing so, their learning becomes more meaningful through reflecting on their own social-emotional states during instruction.

"I created a Form last week that asked students to choose three friends that they think they would work well with. I told them it was for their seating; however, it was more for me to just see who's getting picked a lot and who's not getting picked at all. I had five students whose names did not get picked for anyone's top three and so I reached out to a few colleagues to kind of adopt those students and to set goals with them to try and boost their morale. Between all of us teachers we're setting behavior goals and trying to track their progress with them."

- 3rd Grade Teacher

Hear the full account of how Forms was used for this activity on [YouTube](#).

Student Engagement

Keeping students focused and on-task has always been a challenge, but in today's device-centric and connected world it has become even more challenging.



Across grade levels, educators view engagement as a key ingredient for learning and an important part of classroom management. When technology tools are poorly designed they can be a distraction for students, but when designed with student learning in mind technology can help students maintain focus and keep their attention on relevant activities.

The teachers in this study described different ways that Forms helped keep their students engaged and on-task. In some cases, teachers used Forms as a replacement for a traditional paper-based assessment. A middle-school teacher from Scotland, for example, described increased engagement among her students when using Forms as opposed to paper and a pencil. Even among students as young as first-grade, teachers reported that students were more applied when using Forms to complete an assessment or survey. A third-grade teacher described students' increased interest in a lesson on pollution after they started using Forms to collect survey information instead of their usual paper version. For the activity, students sent a survey to parents and peers that includes the question, "When shopping do you use plastic, paper, or reusable bags?"

Since Forms analyzes data automatically and provides visual graphics, students were able to see the results of the survey quickly and easily. As explained by the teacher, "When everyone saw that half the school used plastic bags, they were like, 'Oh my goodness!' They actually saw from the survey that they were part of the pollution problem."

Other teachers used Forms to make their lessons more personalized for students. One elementary school teacher, for example, used Forms to create a more meaningful lesson for her students. This teacher would create a quick survey in Forms that asked students, "Do you prefer to build, to draw, to paint, or design?" She would then use that information to plan her lessons according to students' interests and how they like to work. A middle-school teacher from Canada appreciated the fact that she could change the aesthetics of Forms to make it more meaningful for her students. In her own words, "It sounds silly, but we love that we can change the background of the Form, so instead of it being a solid color I might put pictures of other teachers—it always gets the kids laughing and gets them excited about doing whatever assessment they have to do."

Professional Uses Of Forms

Communication With Parents

Effective educators try to communicate with parents and their families to better support student learning.



Parent-teacher communication is critical for creating a working partnership and for building a sense of community between school and home. Previous research has demonstrated the important role of parent-teacher engagement for students' academic success, especially for those from traditionally underrepresented minority groups.³ But such communication can be challenging for teachers given the realities of an increasingly-busy school day. Fortunately, technology has made it possible for educators to reach out and communicate with parents without the usual restrictions imposed by time and place.

Several the teachers interviewed for this study—particularly those from Scotland—relied on Forms to communicate with parents.

As one Scottish teacher explained, "In the UK we have standardized and mandated questionnaires for parents, it's something we do so we can learn about the perspectives parents have about the school. We use Forms because with a paper version we find we don't get many back. For us, we've found that it's a safe way to communicate with parents throughout the year." A teacher from the U.S. also used Forms in this way before each of his parent-teacher conferences. "I ask about 10 questions, like, what do you like about your kid's school? What would you change? How do you feel about support?" Sending this Form out in advance of the meeting, he explained, has resulted in more meaningful and productive meetings with parents.

Professional Learning

By participating in wide range of professional learning experiences, teachers can improve the quality of their instruction that will likely lead to increases in student success and learning.



Self-reflection and evaluation are important components of professional learning and both are needed to identify and prioritize areas for improvement. As learning

professionals, teachers benefit from considering their teaching "practice" as just that—a professional skill that will benefit from ongoing efforts towards improvement.

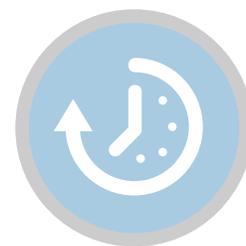
³ Ramirez, F. (2001). Technology and parent involvement. *Clearing House*, 75(1), 30-31.

In this study, teachers use of Forms led to professional learning through reflective practice. An eighth-grade teacher, for example, used Forms to reflect on the quality of her assessments. “When I look at it an assessment item,” she explains, “I always bring it back to myself as a teacher. Are the kids still not understanding the concept? Because if they don’t I must have done something wrong. Maybe I didn’t spend enough time on it or maybe I asked the question wrong, because that happens.” She added that sometimes she would end up removing a question from her assessment because it wasn’t doing a good enough job in asking for information.

An elementary teacher from the U.S. used Forms in a similar way to gauge the effectiveness of her lessons. A regular user of Forms, she relies on it heavily when creating activities and homework assignments. She particularly likes the data that Forms collects on student performance, and she uses that information to tweak her lessons to make them better. “Forms is something I can use year after year to gauge how each assignment impacted student learning, “and that’s really helpful for the planning process.” When teachers take the time to reflect on the effectiveness of their teaching materials in this way, they become better educators and increase the likelihood of driving student learning outcomes.

Teaching Efficiency

In addition to teaching students, educators have a wide range of responsibilities in the classroom.



Tasks such as lesson planning, assignment grading, and supervising the lunch room can happen on any given day in addition to the time teachers spend with their students. Like other complex professions, teachers can rely on technology tools like Forms for making some of their tasks and processes less time consuming and burdensome and leaving them more time for what counts—spending time with students.

In this study, the teachers used Forms in different ways to help streamline processes and tasks. One elementary music teacher, for example, described a new Form he recently started using that took care of requests for instrument repair. He explained that prior to using the Form his students would come up to him in class to let him know if a violin string was broken or the valve of a brass instrument

wasn’t working. “I’d say okay, thank you—but I’m so busy that I’d just forget. So, I created a Form called ‘Instrument Repair Request’ with a QR code that I printed out and taped on the wall. Now when an instrument needs to be fixed students grab an iPad, scan the QR code, fill out the Form, and then I get a nice little email saying there’s something new.”

A key component of Forms for improving efficiency was that it took teachers little or no time to learn. A teacher who used Forms for the first time described how easy it was to design a survey for her elementary students: “For using it [Forms] for the first time it was pretty slick. I mean, it just went really, really easily...I’d definitely use Forms again for this activity because it was just so easy.” A middle school teacher from Canada also appreciated the

simplicity as well as the unlimited number of questions you could create on a Forms quiz. “Forms is super simple” she explained, “and the data that you get from it is really clear, concise, and easy to use. It’s also freely available and there’s no restriction on the amount of questions or the type of questions you use, which is much better than other programs.”

“The beauty of Forms for the teacher is time savings. Sure, you have to create it the first time, but it grades itself and puts the data into spreadsheets for me and I can duplicate that and use it numerous times. So yes, it takes time to create the Form, but you actually get that time back tenfold in the less time it takes you afterwards.”

- 8th Grade Teacher

Administrative Teaching Tasks

For most teachers a typical work day extends far beyond the regular school schedule.



Teachers often need to get to school early to finish-up a lesson plan or stay late to supervise an after-school program or attend a staff meeting. Like other professionals, teachers rely on their smartphones and computer applications for keeping their life organized and on track. The individual impact of a tool that teachers use for completing work tasks is described in the management information literature as the “Task-Technology Fit.”⁴ A tool has a good task-technology fit when it improves the efficiency, effectiveness, or quality of work or has a positive impact on

productivity. A good task-technology fit also increases the likelihood that that others will adopt the tool to use for similar purposes.

There are a number of ways that Forms had a good task-technology fit for teachers. One example is the data security afforded by Microsoft Education applications. In many cases Office 365—and by extension Forms—is available to students through single sign-on, meaning that students can start using Forms without having to log in with an additional ID and password. A technology coach at a middle

4 Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. *Management Information Systems Quarterly*, 19(2), 213-236.

school described how the ability to accurately link a student's responses to the student's identity was a major benefit of using Forms in his school. "If you ask students to type in their name" he explains, "they invariably misspell it, or they just put in a first name, or even a nickname. I also like the sense of security you get from having Forms within our district's server. And the QR code they give you is easy to embed within other Office 365 apps."

The unique data collection feature of Forms also made the tool a good fit for teachers. A teacher from Scotland described how her school routinely uses Forms for a variety of routine tasks, such as locker assignments. "We use a Form where we can directly enter the

information so that we have a spreadsheet where every kid's locker is and their combinations, so everybody has access to that in the administration." Teachers in the U.S. also relied on Forms for information collection. The students of an elementary teacher use Forms every morning to select their lunch choice, and a high school teacher used it to collect applications for their student honor society. A teacher from Canada who uses Forms in a similar way appreciated the reliability of the tool for data collection: "I've never had a concern that someone couldn't open a Form," a teacher explained, "I know people are always going to be able to open the Form, answer the questions, and then send it off."

Supporting Teachers' Use Of Forms

The majority of teachers in this study were already established Microsoft Forms users. How did these teachers come to learn about Forms and how to use it? When asked how they first became aware of online tools, most teachers explained that they tended to use the tools provided by their district rather than seek out new tools on their own.

One teacher shared that although some of her colleagues choose to use alternate tools she felt they were the minority, "I know there's a certain team at our school that still uses other online apps, but I think those people are few and far between. Most of us realize we've got all these Microsoft resources and we just stick to them."

The tendency to use district-supported tools was shared by teachers from all four countries but was particularly the case in

Scotland, where every teacher and student has access to the [Glow](#) platform that includes a variety of tools and resources, including Microsoft Office 365 and Forms.

Ensuring awareness of Forms. But simply making an online tool available does not mean it will be used substantively to enhance teaching and learning. When providing technology support to teachers, a technology coach explained that some teachers had access to tools they weren't using—either

because they didn't know they were available or because they weren't sure how to use them. She went on to explain how her school district chose to wait before making Forms and other applications available to teachers: "What I didn't know was that our district had already paid for Office 365 but just hadn't enabled it for anybody. Then they enabled it in September but didn't tell anybody because we didn't have any trainings yet. I started training people the following August up through October, and during that time I trained probably pretty close to our entire teaching staff." She added that in her experience, the most effective teacher trainings are targeted towards a single application or tool. "When we were showing them all the tools we weren't finding any uptake," she explained, "because that's what we did at the beginning. Now when teachers attend a training we start with one tool and actually walk them step-by-step on how to use it."

Using Forms is the best motivator. A technology coach from Scotland agreed that training was important for teachers' use of Forms, but added that the experience of using a Form was a strong motivator for teachers' individual use. "I always say one of the best ways to get teachers to want to use Forms is to give them a Form. I often give them one in a training about something and then gather and share data with them. Teachers see how easy and quick it was to complete the Form and want to know how it works." This technology coach went on to explain that one of the biggest challenges for teachers is not having the time to attend formal technology trainings, but if they complete a Form on their own and

see how it works, it piqued their interest to learn more about the tool. "If I give teachers a Form in a training," he shared, "guaranteed maybe 50% of those staff will come back to me and say, 'Hey, how did you create that Form?'"

Who are your teachers? Across the five technology coaches that were interviewed, all agreed that teachers' disposition towards technology usually took one of two forms: the "savvy explorer" or the "cautious adopter." The technology coaches considered themselves to be savvy explorers who were early adopters of new technologies, but many of the other teachers also described their technology use in these terms. As one teacher explained, "Forms wasn't a challenge for me, I'm tech-savvy so I get this stuff pretty quickly. For me it was more like, 'Okay, now that I have this tool how am I'm going to incorporate it into my pedagogy?' And that's where I had to get creative." Examples of cautious adopters came from the technology coaches who worked with different teachers across their school or district. "Teachers like what they know," one coach explained, "Some are like, 'Well, I already learned this other technology so I'm not going to learn something else.' Another technology coach experienced similar resistance from teachers: "There are always these teachers that are going to say, 'Well, that's too much trouble to transfer to my gradebook,' or, 'The kids won't be able to study with it—if I give it to them on paper they can keep it forever and study with it.'" Both coaches also described teachers who would balk if a technology didn't work seamlessly the first time, and which discouraged them from any future use.



The Savvy Explorer: "I'm turned on by any new technology just because of the fact that I like to try the new up-and-coming so that I kind of stay above the curve. If there's something new out there then I'm willing to try it; if it goes really well then I'll try it with my kids."

- New Forms User



The Cautious Adopter: “For many teachers the challenge is the unfamiliarity. If they haven’t experienced a tool they’re cautious and afraid to try something new. After walking them through it they’re like, ‘Oh, that’s simple!’ So really, it’s just a matter of them being uncomfortable about not having used something before and understanding how it works.”

- Technology Coach

Instant Feedback and Data-Driven. How can technology support specialists support and encourage Forms use among cautious adopters? Three of the coaches in the study explained how they would initially “sell” Forms to teachers as a time-savings tool. “One of the things that’s really powerful about Forms,” explained a coach, “is that I can sell it to teachers from a time-savings angle. Because once-upon-a-time you’d give out a paper-and-pencil test and then you’d have to sit there for hours putting that into an Excel spreadsheet so you can use the data in an analytic sense.

The fact that data is immediately captured in Excel is a massive time-saver for the teacher.” Another coach advocated using Forms as a way to provide students with instant feedback: “My biggest thing with teachers is the instant feedback. It doesn’t matter how long you’ve been teaching—after a student turns in a test they immediately say, ‘How did I do?’ Students really, really, really want that instant feedback. When teachers see they don’t have to do anything and they get feedback immediately, that’s a big selling point.”

“I actually say to teachers, ‘I think Forms is the most underrated piece of software in the suite because of the time that it saves you in terms of data-driven outcomes and the data collection that goes on with schools now.’”

- Technology Support Coach

Hear the full account of how Forms was used for this activity on [YouTube](#)

Conclusion

This study was designed to provide educators with concrete examples of how Forms could be used to enhance teaching and learning. Twenty-two teachers from four countries and with different levels of Forms experience were interviewed about how they were currently using the tool in their teaching practice. Through these discussions we learned that teachers are using Forms in pedagogically substantive ways to advance student learning. In particular, Forms was central for teachers' implementation of formative assessment and differentiated instruction.

Students were more engaged in their learning when using Forms and they benefited from social and emotional learning through meaningful connections they had with their teachers. Forms also contributed to teachers' professional practice in broader ways by enabling teachers to communicate with parents. In addition, teachers' professional learning was enhanced through self-reflection and through self-evaluation of curricular materials and assessments that were created with Forms. Many routine and important teaching tasks were either facilitated or enabled by the capacity of Forms to automatically collect, analyze and visualize student data.

Teachers' substantive uses of Forms were supported in different ways. While some teachers embrace new technologies and how they might be used to advance student learning, others are more cautious in their approach and in their adoption of new tools and instructional methods. In all cases, teachers appreciated the simplicity and ease-of-use of Forms whether they were seasoned users or whether they had tried using the tool for the first time. The ways in which the teachers used Forms in this study expanded their instructional practice and enabled ways of student learning that could not have been accomplished without its use.

Getting Started With Microsoft Forms

Microsoft Forms is an online quiz and survey application included with Microsoft Office 365. Forms was designed using direct feedback from educators looking for a simple way to formatively assess student learning and monitor learning progress on an ongoing basis.

Forms is part of the Office 365 suite of tools. If a school already has Office 365, one can login at www.office.com and begin using Forms as one of the many apps included in the suite. Teachers and students can also [Download Office 365 for free](#) using a valid school email address. The resources below will help you get started on your journey to using Microsoft Forms!

Support Article



[How to create a form with Microsoft Forms](#)

Videos



[Create a quiz with Microsoft Forms](#)



[Explore new question types in Microsoft Forms](#)



[How to use Microsoft Forms to its full potential](#)



[Microsoft Forms 2018 Tutorial](#)

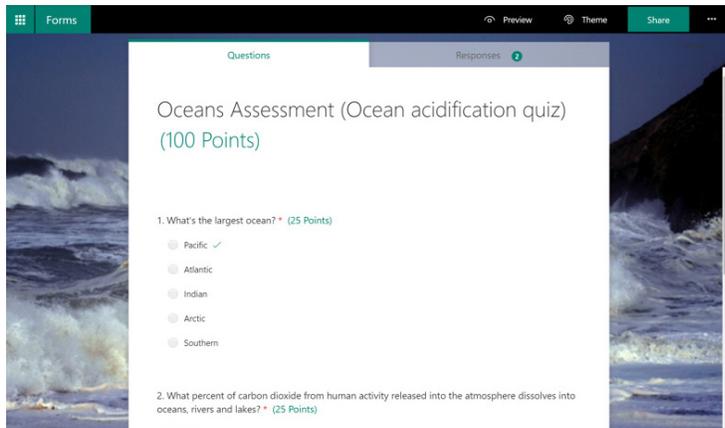
Microsoft Professional Development Courses



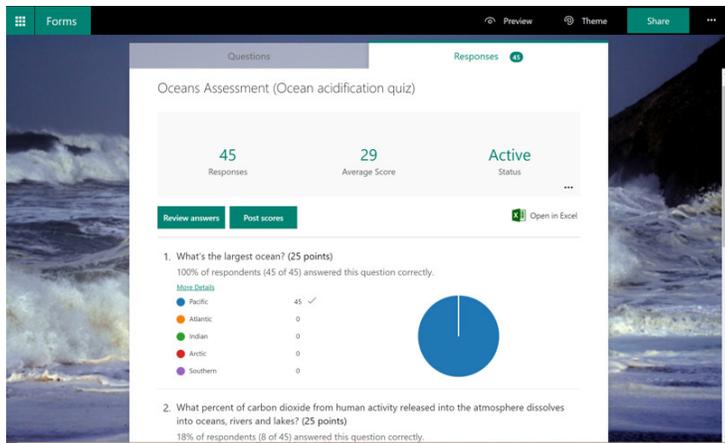
[Microsoft Forms: Creating authentic assessments](#)



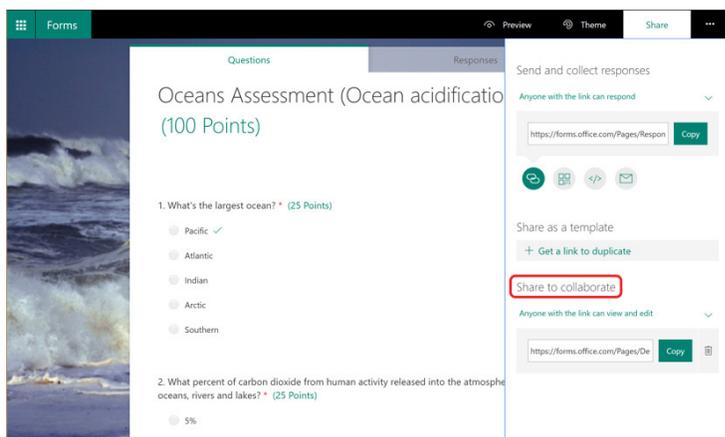
[Empower every student with an inclusive classroom](#)



Forms' easy-to-use interface allows teachers to create customized surveys and quizzes in minutes. Additionally, teachers can change the background of Forms using a range of templates or by uploading their own images.



Forms can help educators make "in-the-moment" instructional adjustments by providing them with real-time data on student performance.



Forms makes it easy for teachers to collaborate and share collected data with their students or with colleagues.

This study was commissioned by Microsoft

Appendix: Data Collection And Analysis

Study data were collected from interviews with a convenience sample of 22 teachers and teacher trainers/coaches.

Teachers were recruited through an invitation letter that was emailed to them by a school leader or other school associate. The letter outlined the purpose of the study and provided researcher contact information should they decide to participate. The 30-minute interviews were conducted online via Skype and were audio-recorded and transcribed for analysis.

Data files were imported into the qualitative software program Dedoose. Prior to analysis the files were tagged according to user type

(teacher from the USA, international teacher, a teacher new to using Forms, or a technology trainer/coach for teachers). Using a grounded theory approach⁵, the initial assignment of open codes led to tentative categorization of the data in terms of its functional form (e.g., quiz, survey, poll). Subsequent rounds of coding led to a refinement of code categories and codes based on the purpose for which Forms was used (pedagogical or professional). The heat map below shows the frequency of code assignments for the Forms use types.

Heat Map of Forms Use Type Code Distribution by Teacher Type

Uses	Codes	Teacher USA	Teacher INTL	New Forms User	Technology Coach
Pedagogical	Formative Assessment	Light Blue	Dark Purple	Light Green	Dark Orange
	Differentiated Instruction	Medium Blue	Medium Purple	Light Green	Medium Orange
	Social-Emotional Learning	Light Blue	Light Purple	Medium Green	Medium Orange
	Peer Collaboration	Medium Blue	Medium Purple	Grey	Medium Orange
	Student Engagement	Medium Blue	Medium Purple	Light Green	Medium Orange
Professional	Communication with Parents	Light Blue	Light Purple	Grey	Medium Orange
	Professional Learning	Medium Blue	Medium Purple	Light Green	Dark Orange
	Teaching Efficiency	Dark Blue	Medium Purple	Medium Green	Dark Orange
	Administrative Tasks	Light Blue	Light Purple	Grey	Medium Orange

Note: Lighter shades depict lower code frequencies; darker shades depict higher code frequencies. Grey represents no assigned codes.

5 Strauss, A., & Corbin, J. M. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Thousand Oaks, CA: Sage Publications.