



Teacher Use of Digital Tools:

Results of a Survey of District Teachers in
Philadelphia, Pittsburgh, Scranton and Neshaminy

September 2020

Introduction

In March 2020, Pennsylvania school buildings were shuttered in response to the Covid-19 pandemic, forcing educators across the state to provide virtual schooling. In the summer of 2020, Research for Action surveyed public school teachers in Philadelphia, Pittsburgh, Scranton, and Neshaminy School Districts¹ to ask about their use of digital tools overall and across four essential teaching responsibilities: instructional planning, delivering instruction, engaging students, and assessing student learning. This brief utilizes survey responses to answer the following questions:

- A.) Did teachers use online tools to teach remotely in spring 2020?
- B.) To what extent did teachers find online tools effective for teaching remotely?
 1. What types of tools do teachers find effective for essential teaching responsibilities including planning instruction, delivering instruction, engaging students, and assessing student learning?
 2. Are these tools also effective for teaching dual-language learners and student with IEPs?
- C.) To what extent do teachers plan to continue using these tools for virtual or in-person teaching in the future?
- D.) What professional development do teachers need to support effective use of digital tools in the future?

A. Did teachers use online tools to teach remotely in spring 2020?

Nearly all teachers surveyed reported using online tools in spring 2020 to carry out each of the four essential teaching responsibilities – 97% of teachers reported using tools for *delivering instruction*, 95% for both *instructional planning* and *engaging with students*, and 82% for *assessing student learning*.

B. To what extent did teachers find online tools effective for teaching remotely?

- Overall, most teachers who used online tools in spring 2020 found them to be effective for teaching remotely. In addition, teachers' perceptions of effectiveness did not vary significantly by grade level, years of teaching experience, and predisposition to digital tools.

¹ Total respondents for this survey equal N=1,593. Educators from school districts across Pennsylvania completed the survey. Sample sizes for all districts with over 30 completions are reported here: School District of Philadelphia, N=1,042 (64%); Pittsburgh Public Schools, N=288 (18%); Scranton School District, N=194 (12%); and Neshaminy School District, N=45 (3%). Twenty-four respondents did not identify a School District or were the only respondent from a given School District.

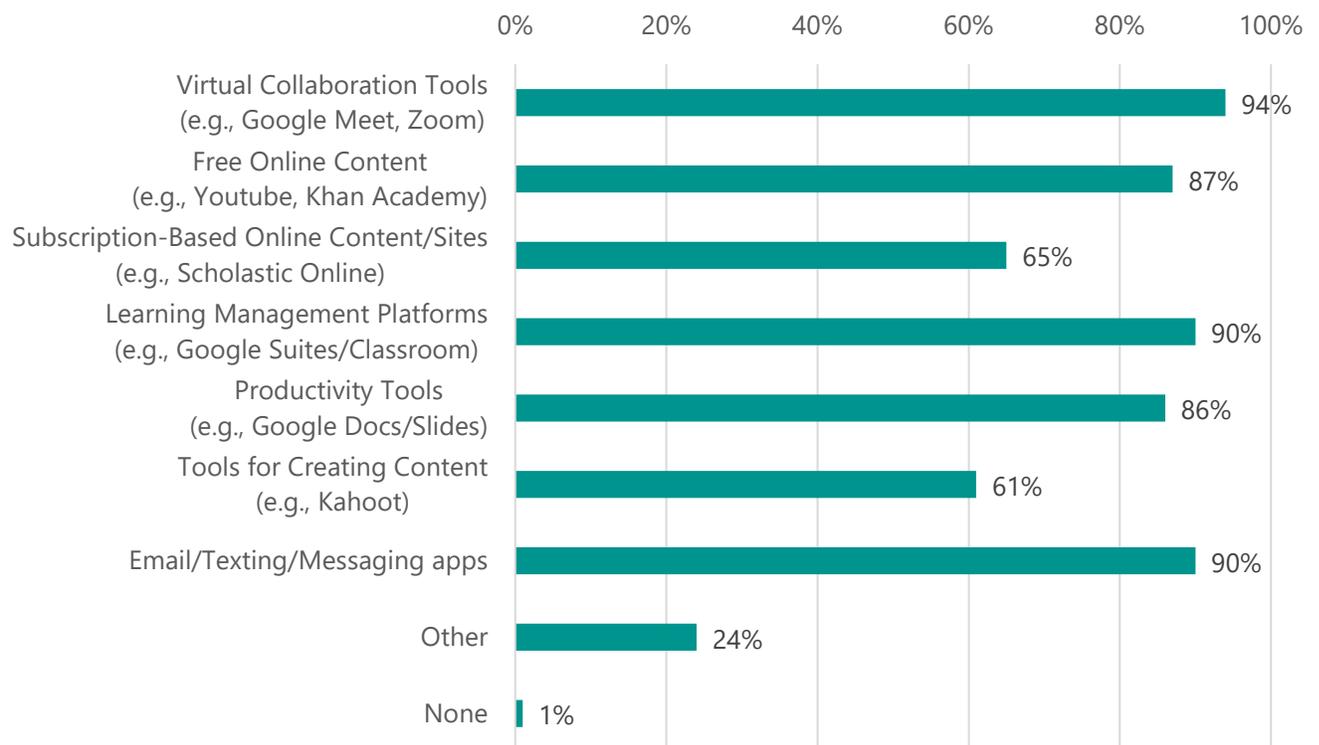
- While variation was minimal, fewer teachers in the following subgroups found tools effective:
 - Very early- and later-career teachers (i.e., teachers with less than 3 years or more than 20 years of experience)
 - Educators who had no experience using digital tools prior to COVID-19.

What types of tools do teachers find effective for any teaching responsibility?

Surveyed teachers were asked to indicate the effectiveness of each of the following seven types of virtual tools: Collaboration tools (e.g., Zoom); learning management platforms (e.g., Google Classroom); productivity tools (e.g., Google docs); free online content (e.g., Khan Academy); subscription-based online content (e.g., Scholastic Online); tools for creating content (e.g. Kahoot); and email/ texting/ messaging apps.

Figure 1 presents the different types of tools (e.g., Virtual Collaboration Tools, Free Online Content, etc.) teachers use in a virtual learning classroom and the percent of teachers that found each tool effective for teaching.

Figure 1. Percentage of Teachers Who Indicated That a Type of Tool Is Effective for Teaching Remotely (N=1,276)



Key Findings:

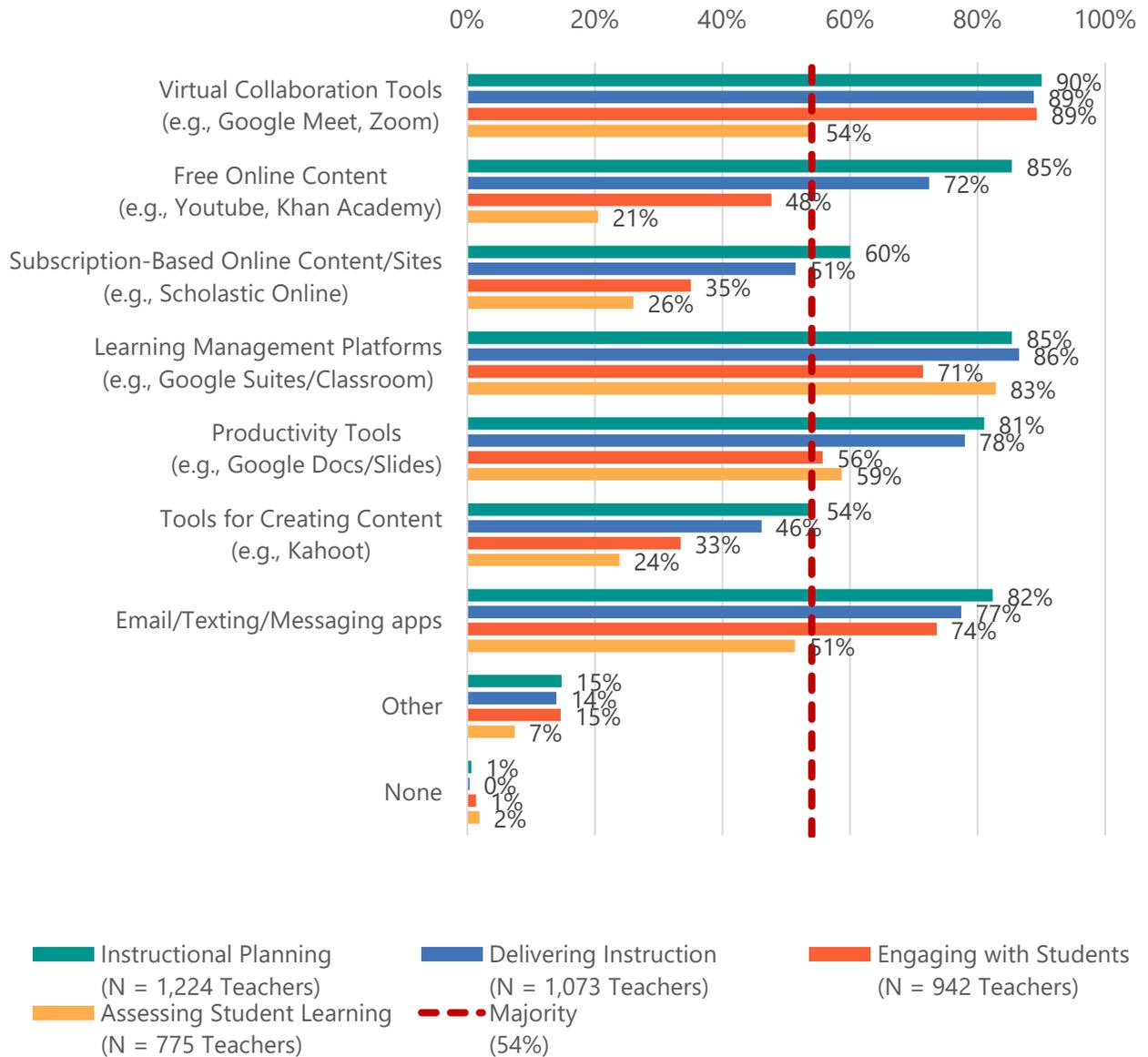
- Overall, virtual collaboration tools, learning management platforms and email/ texting/ messaging applications were identified by 90% or more teachers as effective digital tools.
- Subscription-based online content/ sites and tools for creating content were identified by the fewest teachers (less than 70%) as effective tools.

What types of tools do teachers find effective for planning instruction, delivering instruction, engaging students, and assessing student learning?

Figure 2 presents the different types of tools (e.g., Virtual Collaboration Tools, Free Online Content, etc.) teachers use in a virtual learning classroom and the percent of teachers that found the tools

effective across four essential teaching responsibilities: instructional planning, delivering instruction, engaging students, and assessing student learning.

Figure 2. Percentage of Teachers Who Indicated That a Type of Tool Is Effective Across Four Essential Teaching Responsibilities



Key Findings:

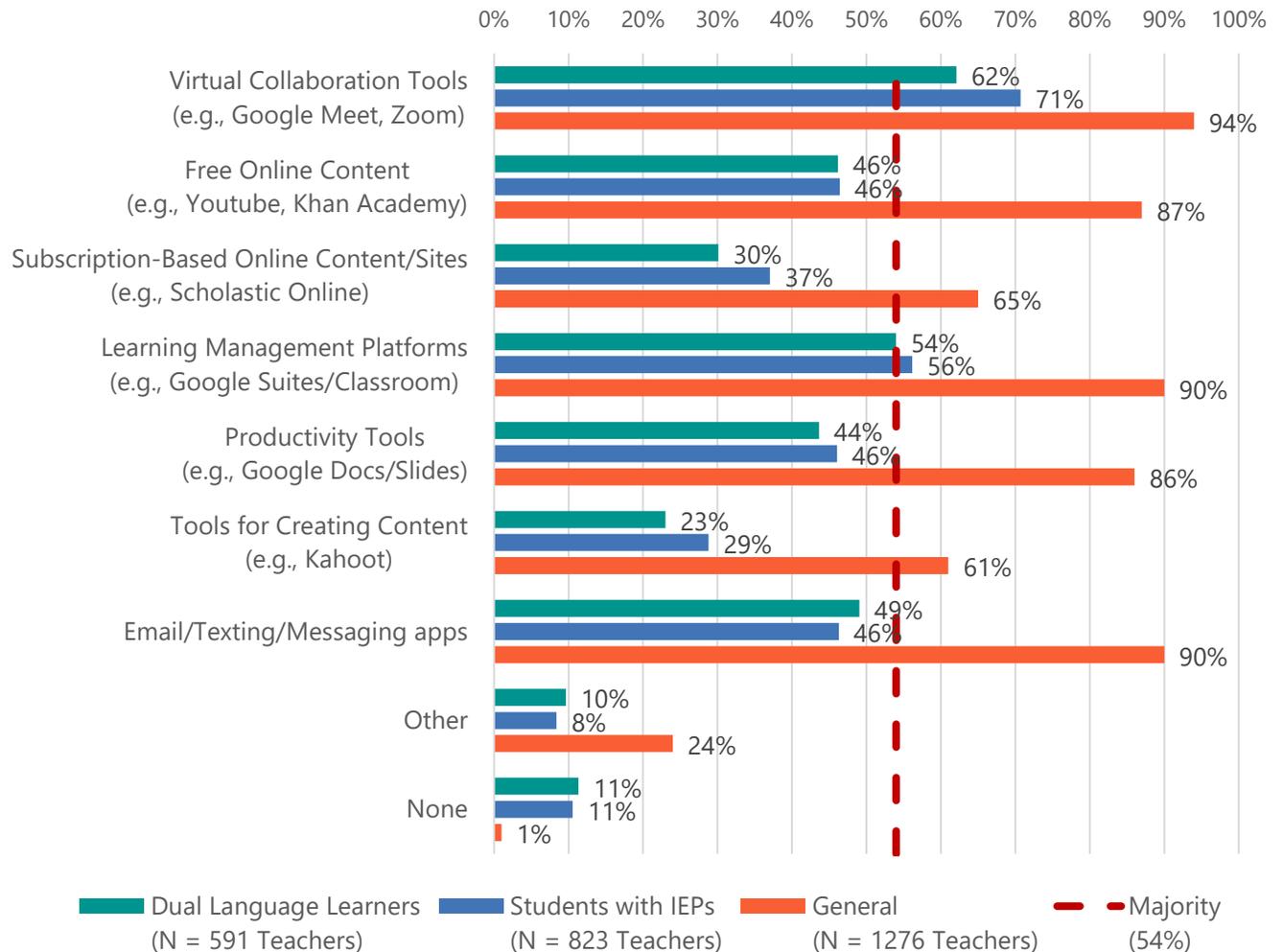
- Over 70% of all teachers found tools useful for instructional planning and delivering instruction. Fewer teachers found tools effective for student assessment.
- The majority (i.e., greater than 54%)² found virtual collaboration learning management platforms and productivity tools effective for all four essential teaching responsibilities – instructional planning, instructional delivery, student engagement, and assessment.
- Teacher responses suggest that some tools are effective, but for specific purposes. For example, while over 54% of teachers identified free and subscription-based online content as effective for the purpose of instructional planning, far fewer reported that these tools are effective for engaging students and assessing student learning. Similarly, many teachers said tools for creating content are effective for instructional planning but not for the other three purposes.

² To present survey findings in an accurate and impartial manner, Research for Action is applying the Pew Research Center's criteria for "majority." Since surveys only question a sample of a larger population that is being studied, the margin of error describes the estimated range within which we would expect the exact answer to fall. (The results we would have gotten if we had surveyed everyone in that larger population is the "true population value.") RFA's 2020 Educator Survey on Remote Learning Tools and Platforms has a margin of error of plus or minus 3 percentage points at the 95% confidence level. Response of 54% or higher is considered a "majority" share of the population.

Are digital tools also effective for teaching Dual-Language Learners and Students with Individualized Education Plans?

Figure 3 presents the different types of tools (e.g., Virtual Collaboration Tools, Free Online Content, etc.) teachers use in a virtual learning classroom and the percent of teachers that found the tools effective for teaching Dual-Language Learners and students with Individualized Education Plans.

Figure 3. Effectiveness of Tools Generally and for Teaching Dual-Language Learners and Students with Individualized Education Plans



Key Findings:

- Overall, fewer teachers found online tools to be effective for teaching Dual-Language Learners and students with Individualized Education Plans (IEPs) than teaching students overall.³
- Fewer than half of teachers found online tools effective for supporting Dual-Language Learners and students with Individualized Education Plans (IEPs). There were two exceptions:
 - A slight majority of educators identified virtual collaboration tools and learning management platforms as effective platforms for Dual-Language Learners and students with IEPs.

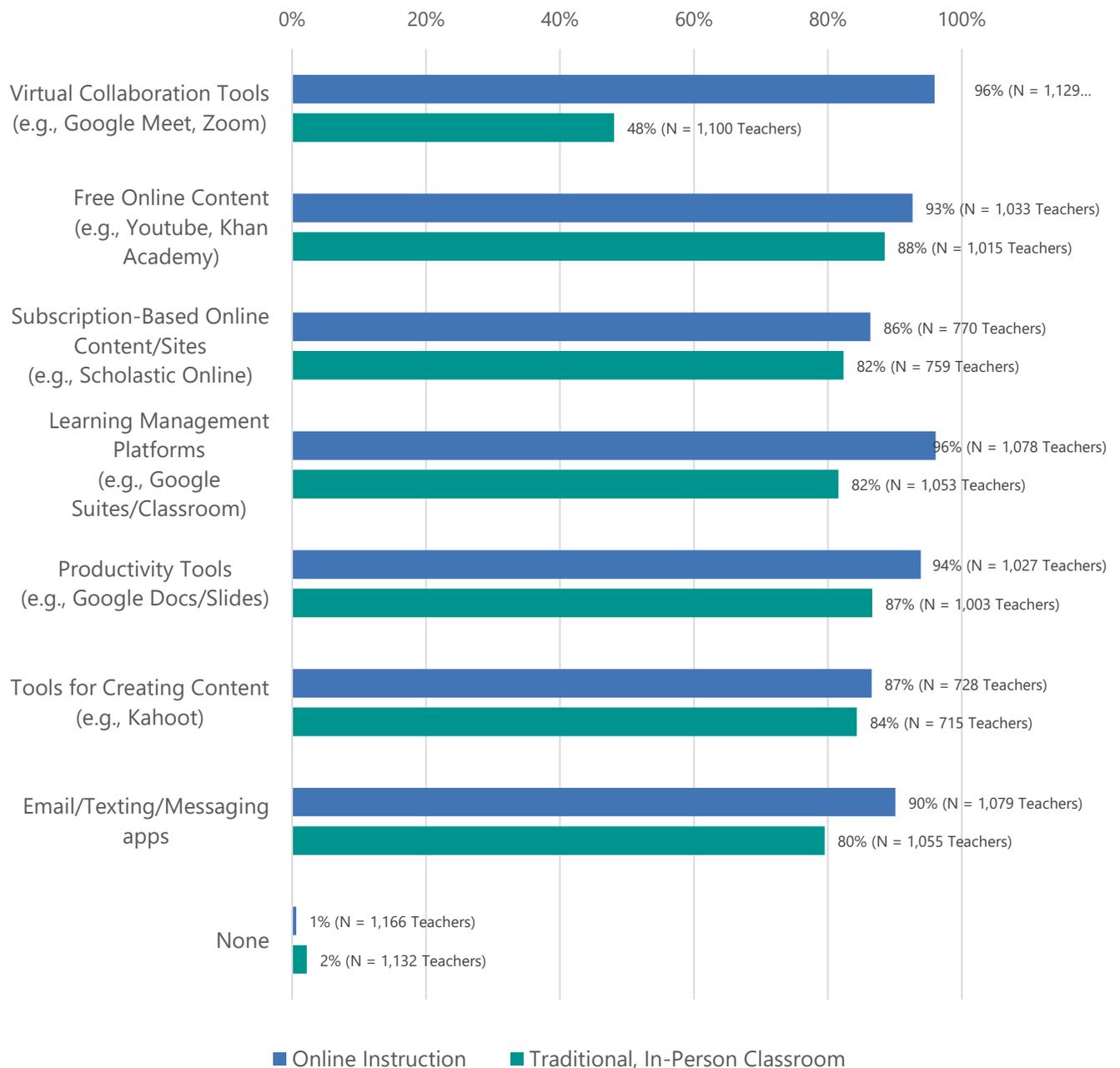
³ The survey question posed to teachers differed when asking about tools, generally, versus asking about tools for specifically teaching Dual-Language Learners (DLLs) and students with Individualized Education Plans (IEPs). When asking generally about the effectiveness of tools, the survey asked which tools are effective for the four essential teaching responsibilities. When asking about the effectiveness of tools specifically for DLL and students with IEPs, the survey asked which tools are most effective for meeting student needs.

- Fewer teachers found online tools effective for Dual-Language Learners than for students with IEPs except for email, texting, or other messaging applications.

C. To what extent do teachers plan to continue using online tools for virtual or in-person teaching in the future?

Figure 4 presents the different types of tools (e.g., Virtual Collaboration Tools, Free Online Content, etc.) teachers use in a virtual learning classroom and the percent of teachers that would continue using the tool for either online or in-person learning.

Figure 4. Average Percentage of Teachers Who Would Continue to Use a Digital Tool for Online Instruction Versus Average Percent of Teachers Who Indicated That a Digital Tool Would Continue to Be Useful for Traditional, In-Person Classrooms



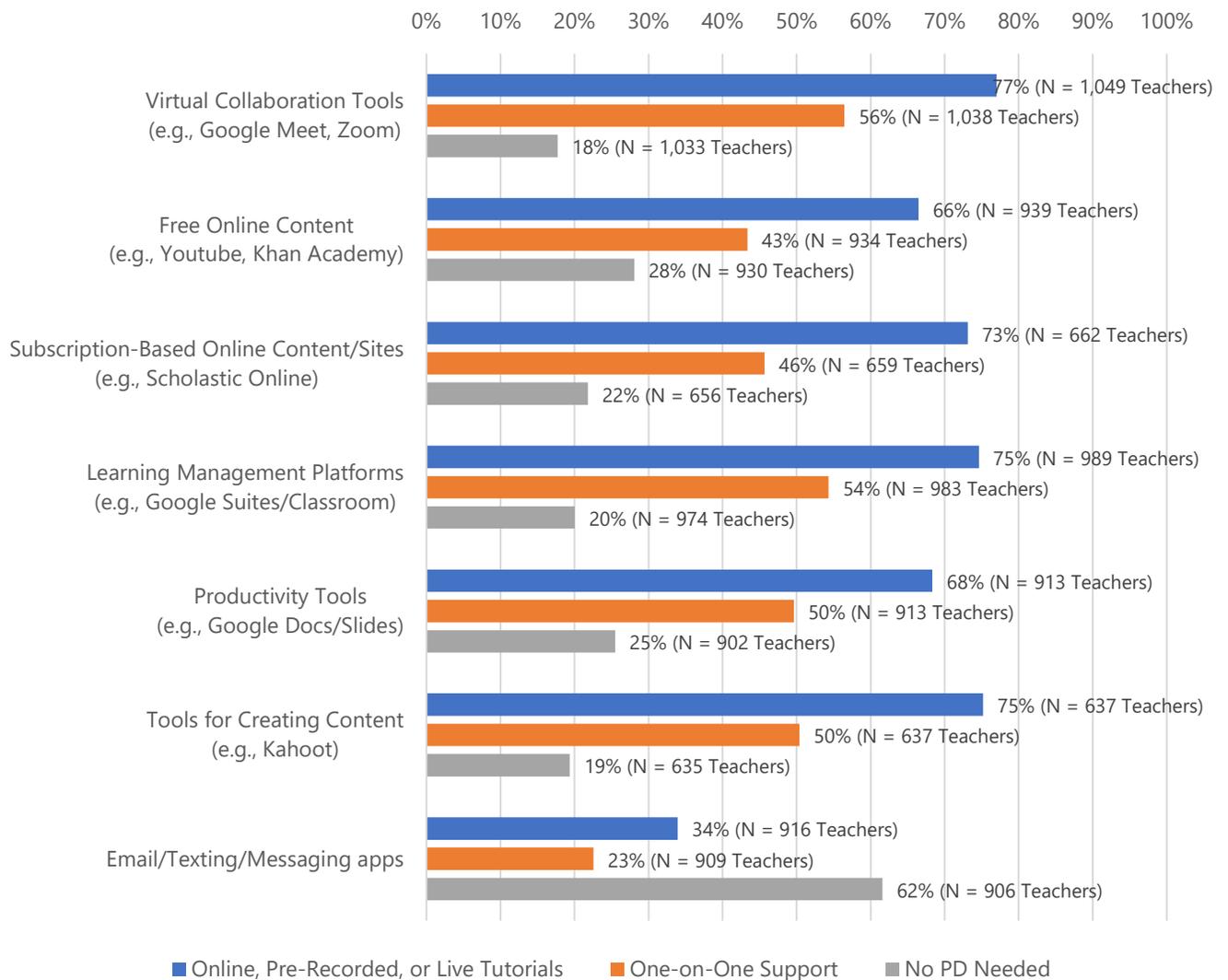
Key Findings:

- Most educators reported that they would continue using digital tools for both online and in-person teaching.
- Overall, more teachers would continue using digital tools when teaching online
- But 80% or more educators stated they would continue using these tools for tradition, in-person classrooms as well.
- Virtual collaboration tools such as Google Meet or Zoom would be used less frequently when teaching in-person.

D. Professional development for effective use of online tools

Figure 5 presents the different types of tools (e.g., Virtual Collaboration Tools, Free Online Content, etc.) teachers use in a virtual learning classroom and the percent of teachers that reported needing different types of professional development to effectively use online tools.

Figure 5. Professional Development Needed to Use Digital Tools More Effectively



Key Findings:

- Most teachers reported the need for professional development for all digital tools except for email/ texting/ messaging applications.
- Educators consistently prefer online, pre-recorded, or live tutorial professional development support versus one-on-one support.

E. Summary Findings

Overall, our analysis of survey results from 1,593 educators identifies several key findings:

- Regardless of whether teachers are in the classroom or teaching remotely, teachers plan to continue using online/ digital tools.
- Teachers need professional development to use tools well.
- Prior experiences using online tools increased the likelihood that teachers find tools to be effective across essential teaching responsibilities.
- Digital tools are less effective for Dual Language Learners and students with Individualized Development Plans (IEPs) than effective for teaching, more generally.
- Digital tools are most effective for planning and delivering instruction. They are not as effective for engaging students and assessing student learning

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