

# **The Potential of Research for Professional Development in Isolated Settings During the Covid-19 Crisis and Beyond**

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The global COVID-19 pandemic has created the urgent need for quality online instruction throughout all levels of education. However, this pandemic has found teachers physically isolated within their homes, and unprepared for the challenging tasks of teaching online. Many of the challenges faced by teachers due to this isolation, are similar to those faced by teachers in remote areas around the world. One such issue, is the lack of access to traditional professional development opportunities, which is frequently the only type of professional development offered to teachers in many countries. Thus, many teachers lack guidance on how to resolve many online teaching challenges during this period. Therefore, this study examines the potential of utilizing educational research for assisting teachers through this trying period of COVID-19.

## **Rationale**

One of the main issues faced by teachers in remote areas is limited access to professional development. This is especially prevalent in smaller countries where it is not always easy to travel long distances to attend such workshops (Kelly & Fogarty, 2015). Yet research has consistently shown that effective professional development is strongly linked to improved stu-

dent outcomes (Hattie, 2009) and that it plays a major role in the success of high-performing, high-needs remote schools (Barley & Beesley, 2007). Nowadays, however, teachers have a limited capability of attending professional development workshops during the COVID-19 pandemic, since no such workshops have pre-existed. Moreover, such traditional professional development opportunities, are frequently the only types of professional development offered to teachers in many countries. Thus, many teachers lack guidance on how to resolve many online teaching challenges during this period. Within this new reality, the utilization of educational research has the potential to serve as a means of professional development (Reis-Jorg, 2005) for teachers who are isolated within their homes, regardless of how remote their geographic location may be.

The utilization of educational research can be beneficial in multiple ways (Ritchie, 2006). By reading targeted research articles online, teachers can obtain evidence of what works under what circumstances (Ponte, Ax, Beijaard, & Wubbels, 2004), which in turn, can foster the transformation of research results into improvements in classroom practice (Gore & Gitlin, 2004). Being able to perform or participate in research studies can also lead to similar results. To examine the potential of educational research for teacher professional development, the hypothesized framework for this study was based on a combination of the Theory of Planned Behavior (Ajzen, 1991) and the Theory of Knowledge, Attitude, and Behavior (Allport, 1935).

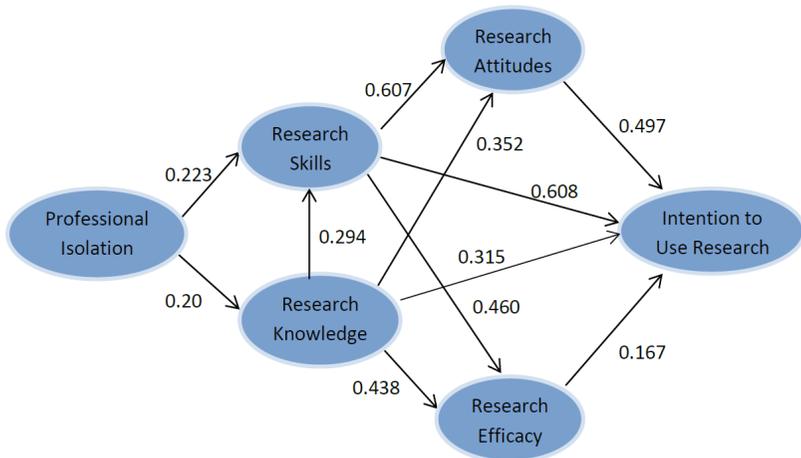
## Process

To examine the factors that are related to teachers' inclinations to use educational research for professional development, an empirical study took place with a sample of 377 teachers from remote schools in Greece. The teachers responded online to the Revised Attitudes Toward Research Scale (Papanastasiou, 2014), the Research Self-efficacy Scale (Greeley et al., 1989), the Research Intention Scale (Trikoilis, 2019), the Professional Isolation Scale (Trikoilis, 2019), the Knowledge Research Scale (Trikoilis, 2019), and the Research Skills Scale (Trikoilis, 2019). The data were analyzed through Structural Equation Modeling with the software AMOS.

**Results and Outcomes of the Study**

The results of the analyses supported the fit of the model and revealed that *Research Skills* have the highest direct effect on teachers’ *Intention to Use Research*. More specifically, teachers who perceived themselves to have high levels of *Professional Isolation* based on their responses on the Professional Isolation Scale, were more likely to have higher levels of *Research Skills* ( $\beta=0.223$ ,  $p=0.000$ ) and *Research Knowledge* ( $\beta=0.200$ ,  $p=0.000$ ). Teachers with more *Research Knowledge* reported higher *Research Skills* ( $\beta=0.294$ ,  $p=0.000$ ), higher levels of *Research Efficacy* ( $\beta=.438$ ,  $p=.000$ ) and more *Intentions to use Research* ( $\beta=0.315$ ,  $p=0.000$ ). Also, teachers reporting higher levels of *Research Skills* were also more likely to have positive *Research Attitudes* ( $\beta=.607$ ,  $p=.000$ ), and higher levels of *Research Efficacy* ( $\beta=.460$ ,  $p=.000$ ) and *Intentions to Use Research* ( $\beta=.608$ ,  $p=.000$ ) (see Figure 1).

So overall, feelings of isolation are related to higher levels of research knowledge and skills, which in turn can potentially lead to a higher probability of using research for professional development purposes. It is likely that teachers who feel more isolated are the ones who more actively seek to develop themselves by engaging in research related activities. So, during this period of self-isolation, research involvement as a means for professional development could provide teachers with multiple benefits (Ritchie, 2006).



**Figure 1.** Structural Model with Total Estimates Between Variables.

## Implications for Practice

Due to the potential of research for continuous professional development, teacher education programs need to provide future teachers with the relevant knowledge and skills so that they can transform themselves from passive recipients of knowledge to active receivers or producers of knowledge (Alsop, Diplo, & Zandvliet, 2007; Papanastasiou & Karagiorgi, 2019). To start with, teachers need to be trained to utilize journal articles to search for ideas on how to solve problems they might be facing with their teaching. The Directory of Open Access Journals (<https://doaj.org/>) can be especially helpful for accessing peer reviewed journals online. By reading such articles, educators can study the theories behind their various teaching practices, as well as obtain evidence of which practices work well (Ponte, Ax, Beijard, & Wubbels, 2004) under circumstances that are similar to their own.

In addition to consuming research, teachers need to be trained to perform their own research studies to assist them with their practice (West, 2011). For example, teachers searching for ideas on how to make their online lessons interesting for students during COVID-19, can be taught how to set up online questionnaires to gather data from other colleagues who are willing to share their own practices. Google forms (<https://www.google.com/forms/about/>) can be used for the creation of the questionnaires, which can then be shared through e-mail or social media.

With the above skills, teachers can utilize opportunities to send out questionnaires to their students and their families in order to gather data about problems they might be facing. By analyzing the data appropriately, they can identify characteristics of struggling students, as well as obtain feedback on how they can improve their practices. These data sources, coupled with research results obtained through open-source journal articles, can support teachers through this period, while enabling them to become critical thinkers (Merkel, 2003) and data based decision makers who can actively confront the challenges of the post COVID-19 era. A necessary requirement, however, is for teacher education programs to provide future teachers with the necessary skills and knowledge on how to utilize research, starting from the undergraduate level of education.

## Replication

Although this study was based on teachers who were geographically isolated, it can easily be replicated with teachers who are in isolation due to

COVID-19. So, by either consuming or producing research with online resources, teachers have the capability of actively engaging in their own self-directed professional development from within their homes. Experimental studies can also be performed to determine whether self-directed research involvement has different outcomes compared to traditional face-to-face professional development workshops. These comparisons can also be made between teachers who can easily access many types of professional development opportunities (e.g. online workshops) and teachers from foreign countries where alternative methods of professional development are scarce.

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## Endnotes

Although virtual or online professional development workshops are offered in countries such as in the USA, this is not the case for many non-English-speaking countries.