

Rapid Response to Professional Development: How Online Teacher Professional Learning Networks Supported Teachers in Pandemic Times

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Abstract

During COVID-19, when teachers rapidly shifted to remote teaching and learning, it became evident that there was an educational crisis—teachers were unprepared for teaching using digital pedagogies. A group of teachers and teacher educators in Trinidad and Tobago, ITTPN Global, responded to the call for emergency professional development in ICT tools with a free workshop series via Zoom. The workshop series served to address teachers' upskilling in key areas of ICT as digital pedagogy became the pandemic pedagogy. Pandemic pedagogy refers to teaching and learning during COVID-19. Teachers built confidence and competence in using ICT tools and designing online lessons. The professional learning model highlighted in this paper utilized authentic and active learning and teacher agency. This reflective essay examines the transformative possibilities of networks in a crisis with implications for professional teacher learning post pandemic.

Keywords: teacher professional learning communities, ICT tools, pandemic pedagogy

Introduction

As part of the emergency response to remote teaching due to COVID-19, ITTPN Global, a professional network of Information Technology (IT) teachers in Trinidad and Tobago (www.ittpnglobal.com), felt urged to support peers in online pedagogies and technologies. While professional learning has always been a crucial mandate for ITTPN Global, the corona crisis presented an opportunity to transform teacher professional development from its traditional form via in-person workshops, and unlock a new, online pedagogical toolkit for teachers.

When pandemic struck, in March 2020 in Trinidad and Tobago, schools were immediately closed to control spread of the virus. Teachers made a hurried shift to remote teaching and learning (Hodges et al., 2020) and realised that they needed to upskill themselves technologically and pedagogically. It was found that teachers were struggling to cope with multiple demands for achieving emergency remote teaching and learning and found their teacher preparation inadequate.

The rapid movement to online platforms triggered multiple conversations about technology and student learning while highlighting the digital divide. Issues of internet access, device acquisition and appropriate modalities dominated conversation and research (Selwyn et al., 2020). But most critical to teachers was the need for pedagogical tools and practices (Carillo & Assuncao, 2020) that would allow them to successfully transition from in-person to online modes of teaching. Teachers quickly realised that their prior use of technology tools in the classroom did not work the same way in an online environment (Haleem, Javaid, Qadri, & Suman, 2022). However, there were no institutionalised responses as in courses or workshops available to support that transition. Teachers reached out to us (ITTPN Global) and asked us for help. We responded by immediately designing and implementing a free workshop series over a three month period May–July 2020. As such we became education “first responders” in the pandemic (Abramenka-Lachheb et al., 2020).

ITTPN Global was well positioned to offer a virtual professional development series called, “Bridging the digital divide—ICT tools for the 21st century educator”. The network had already comprised teachers who were competent in ICT and taught using ICT in courses at the university and to peers. Additionally, as leader of the group and a teacher educator, I was familiar with the landscape of needs of teachers and a range of instructional strategies. We crafted a team of 20 persons to teach more than 400 teachers in a participatory way. These sessions in online pedagogies aimed to augment and enhance the basket of pedagogical strategies that teachers knew. We focused on student engagement, assessment, collaboration and communication and differentiated instruction. Teachers across early childhood, primary, and secondary levels became exposed to new tools and pedagogies including assistive technologies for students with mild disability. This reflective paper presents insights on how the teacher network provided a new opportunity for professional learning to hundreds of teachers and how transformative pandemic practices could be relevant in a post-pandemic era.

Teacher Networks and Online Teacher Professional Development

Teacher learning networks allow teachers to cross the professional spaces of school and even district and potentially allow access to expertise and knowledge from teachers whom they may not otherwise meet or interact with. While few would debate that schools naturally include a group of teachers working together, others would argue that teachers often feel isolated during their daily practice (Darling Hammond et al., 2017). It is the idea of belonging to a community and fostering ties beyond the school walls (Stoll & Louis, 2007) that is appealing to teachers. Additionally, access to experts and knowledge sharing bring potential benefits to participants (Borko et al., 2009; Kamalodeen & Jameson-Charles, 2016). Professional learning networks range in definition, but a useful one for this paper is “a system of interpersonal connections and resources that support informal learning” (Trust, 2012, p. 133). In some countries like Singapore, these learning communities are lauded for their ability to develop and sustain a culture of teacher-led professional development, and improve quality of pedagogy in classrooms (Hairon & Goh, 2017). Teacher professional learning networks are predicated on the notion that teachers are the best providers of professional development for themselves (Philpott, 2017).

Professional development that utilises a top-down approach by telling teachers what and how to do can often be counterproductive and reduce learner engagement and achievement. Scalable solutions (Whitehouse, 2011) such as online teacher networks have been suggested to be helpful to teachers as spaces for collaboration and connection (Coutinho & Lisboa, 2013; Horn et al., 2020). Notable benefits of social networks for professional development are flexibility, connectivity and support (Greenhow et al., 2018; Kamalodeen & Jameson-Charles, 2016). Professional learning networks are built upon shared interest, collaborative endeavour, and collective responsibility (Philpott, 2017) and the rich, open exchange of ideas, experiences, and resources in trustful environments (Booth, 2012).

ITTPN Global was conceptualised as a space for teachers in Trinidad and Tobago to connect with peers and engage in continuous learning. Networking allows teachers to bridge isolation (Darling-Hammond et al., 2017), have conversations and share ideas and resources easily (Greenhow, 2009; Lefebvre et al., 2016), regardless of content area. Virtual and online professional learning have been playing increasingly significant roles in teacher learning and Kamalodeen (2014) noted several successes with an online social networking site for teachers in Trinidad and Tobago as teachers with shared interests connected and learnt from one another with the flexibility of time (day or night) and space (at work, home, or café). Successful teacher networks can cause positive change if they have members with strong ties, are well-organised, have high levels of expertise and facilitate quality interactions (Booth, 2012; Datnow, 2012). In contrast with top-down approaches, the learning community provides the type of enabling environment for teachers to provide just in time support to each other. The capacity to respond to diverse needs and interests and support professional growth (Trust et al., 2017) that is self-directed gives the learning network its greatest power.

Successful professional development features a number of key characteristics and components including modeling best practice and opportunities to collaborate. Research shows that empowered teachers can achieve higher learner outcomes through creative and indigenous solutions (Darling-Hammond et al., 2017). But what it does not adequately show is how that empowerment takes place, especially in schools in low socio-economic neighborhoods, nor the effects of successful teacher practices in diverse contexts. These characteristics of the workshop series offered by ITTPN Global are listed hereunder.

Content-focused Activities. All activities were aligned to the existing national curricula.

Learning Ecosystem. This has been a key characteristic across the board for ITTPN Global's professional learning sessions. There is cross pollination of ideas resulting in active learning

for facilitators and participants via several nodes, such as facilitator to facilitator, facilitator to participants, participants to facilitator and participant to participant via peer learning.

Collaborative Networks. ITTPN Global has an empowering and supportive climate for building trusting relationships among facilitators and enhancing their professional learning capacities.

Culturally Responsive Programme with a focus on high quality education, i.e.: access, equity, justice and harmony, and culturally responsive goals tailored to national culture and context. Workshop materials are constructed locally and instructional strategies follow global best practices that emphasize participant engagement and interactivity with support for all learners to achieve their personal goals and targets.

Local Experts. ITTPN Global volunteers took on the role of coaches and mentors with the humility to recognize that we are all constantly learning. They were skilled, empathetic, and linked learning to practice.

Evidence Driven. Research on professional development for teachers (Darling-Hammond et al., 2017), integrating ICT's into the classroom (Ertmer et al., 2012), online learning (Griffin et al., 2018) and networking (Horn et al., 2020; Kamalodeen, 2014) supported this initiative.

The Virtual Professional Development for Teachers

ITTPN Global offered three opportunities to learn under the umbrella of "Bridging the digital divide, ICT tools for the 21st century educator". The first series of workshops were several one-day virtual sessions in May 2020 to introduce teachers to basic ICT tools. Next, we offered virtual professional development sessions for teachers over a 5-day period to deepen understandings and enhance skillsets. Thirdly, we connected with parents through a parent support group to develop a more connected community of leadership by reaching out and involving key stakeholders. As such we designed a triage framework for teacher professional learning that was just in time and responsive during pandemic.

Our first workshop, “Remote teaching: Digital tools for the 21st century”, was held virtually on May 1, 2020 via Zoom. We focused on fundamentals of online learning and setting up an online learning environment. The workshop targeted primary teachers, upon request. Due to the overwhelming response, we repeated the workshop on May 7, 2020. In the third one-day workshop—May 29, 2020—we hosted 270 participants across all education levels—early childhood, primary, secondary and tertiary. We offered a selection of ten tools for an immersive experience. The options were WhatsApp, Screencasting, Pen Casting, Google Classroom, Socrative, Schoology, Edmodo, Edpuzzle, Flipgrid, Padlet, and Assistive Technologies (see Figure 1). *Zoom.com* was utilized to offer the virtual PD with breakout rooms used to manage highly interactive small group tasks. We harnessed a participatory approach to professional learning through a model that empowers teachers to help each other with knowledge sharing and skill building. We now provide you with selected feedback from participants and facilitators.

Y’all are inspiring. (Participant)

I wanna join your team please. Y’all are fantastic! (Participant)

Thank you so much for the opportunity to join the ITTPN Global. I really appreciate it. Learnt so many new things. (Participant)

Great. With your team, anything is possible. The teamwork was obvious. (Participant)

I feel great having made a difference. Most of the participants in Socrative indicated that they were not familiar with the tool, so just the exposure made it worthwhile. Thank you for the opportunity. (Presenter)

I think it was well structured. The dry runs really helped in my preparation. Also, it was informative, and I think the participants appreciated that they were able to learn 2 online tools that they were interest in. (Presenter)

It was my pleasure and thanks to the ITTPN team as well for the support given to me in order to have a successful session today. (Presenter)

Figure 1

Flyer Advertising one of the Workshops Disseminated Through Social Media

ITTPN GLOBAL

Save the Date

Friday, May 29, 2020

Remote Teaching: Digital Tools for the 21st Century Teacher

Breakout Rooms:

Flipgrid, Edmodo, Schoology, Google Classroom, Edpuzzle, Socrative, Padlet, WhatsApp, Screen casting, Pen casting, Assistive Technologies

registration
OPENS

Friday 22nd May, 2020

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We then sought to further enhance teacher skill sets and competencies in certain ICT tools. We developed a workshop series under the same theme, “Remote teaching: Digital Tools for the 21st Century” and attracted 406 primary school teachers. Over the month of July 2020, participants were exposed to online learning concepts, learning platforms, tools for assessment and engagement and tools for inclusive online classrooms. These 20-hour, weekly training sessions in 5 cohorts represented a learning ecosystem as participants brought their own experiences into their practice. Some teachers who were new to technology integration felt that they gained the motivation to learn how to use and apply the ICT tools, once given support resources at the end of the workshop. An interesting observation was the interest of some participants in switching from the learning platform they were using to another, due to its introduction at the workshop and their perceived benefits, e.g., being more appropriate for younger learners, more accountability of work done, maintaining contact, foster self-learning, allowing student creativity and self-expression and assisting learners with challenges. Participants’ comments included: “We had accessibility to personnel for continued learning”; “We were able to better plan and deliver our curriculum during COVID-19

and beyond”; “This is an avenue to maintain and supply individual support to students depending on their needs [and] assist students with learning challenges.”

In the third workshop, we partnered with a NGO called Moms for Literacy to support parents and caregivers in the new pandemic era. With schools fully closed, all students were expected to learn at home, making parents more directly responsible for their child’s learning. The 2-day workshop entitled, “A New Vision for Education Leadership” took place virtually via Zoom on Saturday, October 24, 2020 and Saturday, November 7, 2020. Based on conversations with parents, they felt the sessions were useful and they were extremely happy to have attended.

We selected the synchronous platform *zoom.us* for all our virtual workshops as it allowed us to have large numbers of attendees, privacy features of pre-registration, waiting room, and audio management. It also is easy to use and allowed breakout rooms (Rucker et al., 2020) to manage smaller groups very easily for enhanced collaboration and knowledge sharing. Additionally, zoom allowed polls, live transcript, recording video, and screen sharing without being formally trained (Kohnke & Morehouse, 2020). We believe the technology platform also enhanced the teacher learning experience and contributed to the success of the virtual professional development.

Implications for Teacher Professional Development in a Post-Pandemic Era: How was Practice Transformed?

Networked learning and teacher communities of learning can play an important role in teacher professional development (Booth, 2012; Coutinho & Lisboa, 2013; Greenhow et al., 2018). Being connected to peers and those considered to be experts can support teachers’ instructional practice and confidence levels. This is an important emphasis for teachers (Horn et al., 2020). We have an opportunity to change pre-pandemic ways of doing things to post-pandemic pedagogy that situates the learner more prominently. Based on positive responses to the virtual workshops during

COVID-19, teachers seem to embrace the flexibility of learning, the direct application to their classroom and the supportive learning environment created by the facilitators. We support McCarty’s (2020) stance that “the resources and resourcefulness drawn upon in this crisis could serve to widen the relevance of education in society. It is up to the global community of educators to innovate and share expertise to realize this urgent mission” (para. 16).

Initial workshop evaluation data indicated a preference for Google Classroom as an accessible and easy to use learning platform, and zoom.com’s audio, video and inbuilt features accessibility features such as transcription and closed captioning. Teachers also cited other tools that they preferred, especially those that allowed for inbuilt parental communication such as Seesaw (for young students) and Edmodo. Kahoot! was a popular tool for gamification and Google Docs was useful for collaborative work. Teachers also highlighted the prolific use of YouTube! videos for teaching and learning and WhatsApp for wide-scale communication with students and parents alike. We learnt informally that there was a lack of awareness of assistive technology tools to support students with special needs. Adopting technologies in the classroom has always depended upon teachers’ beliefs about technologies (Ertmer et al., 2012; Kim et al., 2013).

It is important to help teachers to strengthen bonds and ties with each other and this can help novice teachers feel welcome (Lane & Sweeney, 2019). Ongoing professional development opportunities and conversations with teachers within networks (Coutinho & Lisboa, 2013) can help strengthen bonds. We obtained teacher narratives about the reality of classrooms and the difficulties in engaging students meaningfully online. However, since the facilitators were teachers themselves and considered as experts, they shared their best practices and selected tools that worked in their classrooms. As such the networked environment allowed knowledge sharing built on trust (Booth, 2012) and established reputation and practice. Learning took place through participation in designed activities and allowed for a different

type of leadership to emerge (Kamalodeen & Jameson-Charles, 2016). This leadership may be considered transformational (Giejsel et al., 2009) as the teachers who were designers and planners of the learning activities grew to understand and satisfy the participants' concerns and needs. They modeled best practices, coached other teachers, and helped to elevate others' skill sets. Since we were all new to online professional development, these transformational teachers demonstrated commitment, patience, and persistence in solving even the largest of problems. Their self-efficacy and collective responsibility made the team work. As such, transformational leadership at ITTPN Global helped teachers attain their own learning goals and to act as agents of change.

The pandemic era has highlighted the need to be able to pivot between in-person and online formats, and that hybrid formats that combine in person with virtual environments should remain in focus for better models. Thus teaching relies on pandemic pedagogy that is leveraged through digital technologies. Teachers demonstrated agency and initiative in sourcing help from experts and their peers when they needed it (Datnow, 2012). Teachers acted purposefully to seek knowledge outside of their institutional structures. Meanwhile, teachers in the professional learning network responded quickly and decidedly to a completely new teaching and learning environment. This action allowed them to build new social ties and strengthen existing ones (Lane & Sweeny, 2019) thus making them change agents. Thus, transformational leadership emerged in the teachers' network and that seemed to have a role in teachers' ongoing professional learning and in helping them to be lifelong learners (Mentis & Kearney, 2017), thus making these networks important educational spaces. As we move into the endemic or post-pandemic era, it is critical for policy makers and educational stakeholders to support and sustain teacher professional learning networks for the promise of a more relevant and scalable solution to professional development. This can only lead to enhanced teacher pedagogy and improved school quality.

Conclusion

While research abounds about teacher professional learning communities and networks, this work helps to showcase how teachers forged and strengthened social ties outside of their institutional structures. Such an understanding can help us address various issues that teachers in Trinidad and Tobago and beyond encounter such as combatting teachers' isolation. The model of professional development presented here highlights the thinking that teachers are resourceful and can transform their practice when and as needed, even in crisis. Teacher agency (Lane & Sweeny, 2019) and transformational leadership in professional learning networks (Hairon & Goh, 2017) are concepts that need to continue to be researched for enhanced school success.

Acknowledgements

The author acknowledges, with sincere gratitude, the contributions of various members of ITTPN Global. These include the entire executive, and the PD working team members. Special thanks to Shehnaz Mohammed for her contributions to making all of this possible.

Vimala Kamalodeen, PhD specialized in Math and Computer Science education at the School of Education, The University of the West Indies, St. Augustine. Her doctoral thesis used an eclectic mixed methods design focusing on hybrid data from educational online social networking. Vimala was a past President of the Caribbean Chapter of Mixed Methods International Research Association (MMIRA-CC) and successfully hosted the third regional mixed methods conference and successfully hosted the third regional mixed methods conference in the Caribbean. She chaired the professional development committee of MMIRA-CC. Vimala was also the founding President of ITTPN Global (a professional learning network) and conducted mixed methods research in game-based learning. Vimala passed away on July 5, 2022.

References

- Abramenka-Lachheb, V., Lachheb, A., de Siqueira, A. C., & Huber, L. (2021). Instructional designers as “first responders” helping faculty teach in the coronavirus crisis. *Journal of Teaching and Learning with Technology*, 10(1). <https://doi.org/10.14434/jotlt.v10i1.31368>
- Booth, S. E. (2012). Cultivating knowledge sharing and trust in online communities for educators. *Journal of Educational Computing Research*, 47(1), 1–31. <https://doi.org/10.2190/EC.47.1.a>
- Coutinho, C. P., & Lisbôa, E. S. (2013). Social networks as spaces for informal teacher professional development: challenges and opportunities. *International Journal of Web Based Communities*, 9(2), 199–211. <https://doi.org/10.1504/IJWBC.2013.053244>
- Darling-Hammond, L., Burns, D., Campbell, C., Goodwin, A. L., Hammerness, K., Low, E. L., ... & Zeichner, K. (2017). *Empowered educators: How high-performing systems shape teaching quality around the world*. John Wiley & Sons. <https://doi.org/10.1080/03057925.2018.1552428>
- Datnow, A. (2012). Teacher agency in educational reform: Lessons from social networks research. *American Journal of Education*, 119(1), 193–201. <https://doi.org/10.1086/667708>
- Ertmer, P. A., Ottenbreit-Leftwich, A. T., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: A critical relationship. *Computers & Education*, 59(2), 423–435. <https://doi.org/10.1016/j.compedu.2012.02.001>
- Greenhow, C. (2009). Tapping the wealth of social networks for professional development. *Learning & Leading with Technology*, 36(8), 10–11.
- Greenhow, C., Campbell, D., Galvin, S. & Askari, E. (2018). Social media in teacher professional development: A literature review. In E. Langran & J. Borup (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 2256–2264). Association for the Advancement of Computing in Education (AACE). Retrieved June 28, 2023 from <https://www.learntechlib.org/primary/p/182975/>
- Griffin, C. C., Dana, N. F., Pape, S. J., Algina, J., Bae, J., Prosser, S. K., & League, M. B. (2018). Prime online: Exploring teacher professional development for creating inclusive elementary mathematics classrooms. *Teacher education and special education*, 41(2), 121-139. <https://doi.org/10.1177/0888406417740702>
- Haleem, A., Javaid, M., Asim, M., & Suman, R. (2022). Understanding the role of digital technology in education: A review. *Sustainable Operations and Computers*, 3, 275-285. <https://doi.org/10.1016/j.susoc.2022.05.004>
- Hairon, S., & Goh, J. W. (2017). Teacher leaders in professional learning communities in Singapore: Challenges and opportunities. In A. Harris, M. Jones, J. B. Huffman (Eds.), *Teachers leading educational reform: The power of professional learning communities* (pp. 86–100). Routledge. <https://doi.org/10.4324/9781315630724-7>
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *EDUCAUSE Review*. <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>
- Horn, I., Garner, B., Chen, I. C., & Frank, K. A. (2020). Seeing colleagues as learning resources: The influence of mathematics teacher meetings on advice-seeking social networks. *AERA Open*, 6(2), 2332858420914898. <https://doi.org/10.1177/2332858420914898>

- Kamalodeen, V., & Jameson-Charles, M. (2016). A mixed methods research approach to exploring teacher participation in an online social networking website. *International Journal of Qualitative Methods*, 15(1). <https://doi.org/10.1177/1609406915624578>
- Kamalodeen, V. (2014). Teacher learning in an online social networking website. *Caribbean Curriculum*, 22, 133–155.
- Kim, C., Kim, M. K., Lee, C., Spector, J. M., & DeMeester, K. (2013). Teacher beliefs and technology integration. *Teaching and Teacher Education*, 29, 76–85. <https://doi.org/10.1016/j.tate.2012.08.005>
- Kohnke, L., & Moorhouse, B. L. (2020). Facilitating synchronous online language learning through Zoom. *Relc Journal*, 53(1), 296–301. <https://doi.org/10.1177/0033688220937235>
- Lane, J. L., & Sweeny, S. P. (2019). Understanding agency and organization in early career teachers' professional tie formation. *Journal of Educational Change*, 20(1), 79–104. <https://doi.org/10.1007/s10833-018-9329-0>
- Lefebvre, V. M., Sorenson, D., Henschion, M., & Gellynck, X. (2016). Social capital and knowledge sharing performance of learning networks. *International Journal of Information Management*, 36(4), 570–579. <https://doi.org/10.1016/j.ijinfomgt.2015.11.008>
- McCarty, S. (2020, May). Post-pandemic pedagogy. *Journal of Online Education* (Special Issue: Teaching Online during the 2020 Coronavirus Pandemic). New York University.
- Mentis, M., & Kearney A. (2017). Networked teaching and learning for life-long professional development. In M. Peters, B. Cowie & I. Menter (Eds.), *A companion to research in teacher education*, (pp. 253–268). Springer Singapore. https://doi.org/10.1007/978-981-10-4075-7_17
- Philpott, C. (2017). Professional learning communities: Possibilities and challenges. *Teachers and Teacher Educators Learning Through Inquiry: International Perspectives*, 81.
- Rucker, J., Steele, S., Zumwalt, J., & Bray, N. (2020). Utilizing zoom breakout rooms to expose pre clerkship medical students to TeleMedicine encounters. *Medical Science Educator*, 30(4), 1359–1360. <https://doi.org/10.1007/s40670-020-01113-w>
- Selwyn, N., Hillman, T., Eynon, R., Ferreira, G., Knox, J., Macgilchrist, F., & Sancho-Gil, J. M. (2020). What's next for Ed-Tech? Critical hopes and concerns for the 2020s. *Learning, Media and Technology*, 45(1), 1–6. <https://doi.org/10.1080/17439884.2020.1694945>
- Stoll, L., & Louis, K. S. (2007). Professional learning communities: Elaborating new approaches. *Professional learning communities: Divergence, depth and dilemmas*, 1–1.
- Trust, T. (2012) Professional learning networks designed for teacher learning. *Journal of Digital Learning in Teacher Education*, 28(4), 133–138. <https://www.doi.org/10.1080/21532974.2012.10784693>
- Trust, T., Carpenter, J. P., & Krutka, D. G. (2017). Moving beyond silos: Professional learning networks in higher education. *The Internet and Higher Education*, 35, 1–11. <https://doi.org/10.1016/j.iheduc.2017.06.001>
- Whitehouse, P. (2011). Networked teacher professional development: The case of Globaloria. *Journal of Interactive Learning Research*, [online], 22(1), 139–165. Available at: <http://www.mendeley.com/research/networked-teacher-professional-development-case-globaloria/>
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