

PLNs for Educators: Why Do Some Educators Lurk While Others Lead?

Author

Trust, Torrey, Prestridge, Sarah

Published

2020

Conference Title

SITE 2020 - Society for Information Technology and Teacher Education

Version

Version of Record (VoR)

Rights statement

© 2020 AACE and the Education & Information Technology Digital Library (EdITLib). The attached file is reproduced here in accordance with the copyright policy of the publisher. Please refer to the conference's website for access to the definitive, published version.

Downloaded from

<http://hdl.handle.net/10072/399495>

Link to published version

<https://www.learntechlib.org/p/215920/>

Griffith Research Online

<https://research-repository.griffith.edu.au>

PLNs for Educators: Why Do Some Educators Lurk While Others Lead?

Torrey Trust, Ph.D.
University of Massachusetts Amherst
Teacher Education & Curriculum Studies
813 North Pleasant Street
Amherst, MA 01003-9308, USA
torrey@umass.edu
ORCID ID: 0000-0001-5421-2197

Sarah Prestridge, Ph.D.
Griffith University
176 Messines Ridge Rd
Mount Gravatt QLD 4122
s.prestridge@griffith.edu.au

Abstract: Through a five-week open online course designed by author Dr. Torrey Trust's students, educators discovered how to cultivate diverse and dynamic professional learning networks (PLNs) that supported their ongoing learning and growth. Surveys, course artifacts, and online community posts were collected and analyzed to uncover why the course participants engaged in learning within and across spaces in varied ways – from lurking to collaborating to leading. In this paper, we present a new model to showcase the complex, multifaceted nature of influencers that shape how and why educators engage in specific actions within and across their PLN spaces as they seek to learn and grow their practice. This model serves as a reflective tool for enriching PLN learning experiences and an analytical tool for changing the way scholars and teacher educators look at and support educator learning in the 21st century.

Professional learning networks (PLNs) consist of the *people* who support professional growth, online and in-person *spaces* for connecting and learning with people and resources, and *tools* for accessing and curating information. Taken together, people, spaces, and tools create a networked learning experience where information is distributed and connected at the same time. Well-constructed PLNs, those that consist of a network of diverse people, spaces, and tools that inspire new learning and encourage professional growth, have numerous benefits. Trust, Krutka, and Carpenter (2016) found that educators' PLNs can support four areas of growth: affective, social, cognitive, and identity. That is, when educators engage in learning with their PLNs, they are more likely to feel supported and less isolated, reflect upon their practice and try new pedagogical strategies and tools, shift their identity from being the sole expert in the classroom to a learner and leader, and enhance student learning.

However, while all educators have a PLN, the diversity, depth, and dynamism of the PLN can range quite a bit. Some educators' PLNs might consist of their local colleagues and friends and a single online space (e.g., district list serv, a Twitter chat). While other educators' PLNs might consist of a globally distributed network of people who connect through multiple online and in-person spaces. Many educators are unaware or unsure of how to use digital tools and social media to expand their networks to advance their learning. Additionally, most educators engage with their PLNs in a limited manner – often taking ideas and resources for their practice from a single online or in-person space without contributing to their network or reflecting upon the impact of their PLN on their professional growth and career goals (Krutka, Carpenter, Trust, 2016). It is clear from the limited, but growing, research on PLNs that educators need support in learning how to build and engage with diverse, deep, and dynamic PLNs.

To address this need, Dr. Trust, and her graduate level web design class, developed a five-week free open online course to assist educators in expanding their PLNs and advancing their professional growth. The course ran as a small open online course (SOOC) for 75 members of the ISTE Teacher Education Network and individuals from Dr. Trust's College of Education. A total of 13 educators, including instructional coaches, higher education faculty, university students, and K-12 teachers, completed the course. Data was collected in the form of pre- and post-course survey data, course artifacts designed by the participants, and online community posts.

Upon review of the course data, we uncovered insights regarding the variability in educators' PLN development and engagement within and across the spaces in their PLNs. For this exploratory study, we took a deep dive into analyzing the factors that influenced educators' actions (from lurking to collaborative knowledge building to leading). Specifically, the following research questions guided our study: 1) What factors influence educators' actions within their networks? 2) Why and how do educators' actions differ within and across spaces?

Literature Review

While PLNs consist of people, spaces, and tools that enrich and advance professional learning, most research on educators' professional learning focuses on traditional professional development (e.g., workshops or seminars) or a specific space/tool (e.g., Twitter chat, Facebook group, Pinterest, Reddit, Edmodo) (e.g., see Lantz-Andersson, Lundin, and Selwyn's [2018] systematic review of 52 studies of formal and informal online teacher communities). These studies have proven beneficial in identifying the characteristics of effective professional development and how and why educators engage in learning in specific spaces or with particular tools. For example, scholars have identified that educators participate in a range of actions in online spaces, including consuming information, networking, asking for help or support, contributing information, self-promotion, collaborating, and crowdsourcing (Forte, Humphreys, & Park, 2012; Prestridge, 2019; Seo, 2014; Trust, 2017). Additionally, educators' actions are fluid and can shift within online spaces depending on a variety of factors, such as social dynamics of the space, technical competency, perceptions of the community, time, motivation, goals, local contexts, personal lives, relationships, fear, and online presence (Barab, Schatz, & Scheckler, 2004; Carr & Chambers, 2006; Trust, 2017; Duncan-Howell, 2010; Forbes, 2017; Jones & Preece, 2006; Lantz-Andersson, Lundin, & Selwyn, 2018; Tsiotakis & Jimoyiannis, 2016; Zhang, Liu, Chen, Wang & Huang, 2017; Veletsianos, Johnson, & Belikov, 2019).

Yet, in the networked world, educators are not simply learning from a singular group of people, space, or tool. They are building complex, personalized networks and shifting their actions within and across digital and in-person spaces to meet their professional needs (Prestridge, 2019; Trust, Krutka, & Carpenter, 2016). Ultimately, the field of research on PLNs lacks the complexity needed to understand educators' learning experiences within a multifaceted network of people, spaces, and tools. Additionally, research on educators' PLNs has tended to focus on K-12 teachers. Our study captures a unique dataset of educators in diverse roles, both within and beyond K-12 school settings, who wanted to evaluate and modify their PLN and shift their actions to grow their practice. This leveraged our capacity to analyze educators' actions in PLNs as holistic entities.

Methods

We adopted an interpretivist perspective to guide the data collection and analysis methods. We sought to investigate how current and future educators engaged in in-person and virtual interactions with their PLNs to grow their practice. This required collecting multiple types of data from each participant and creating participant profiles that captured the complexity of their actions across spaces. Our goal for the study was not to generalize the findings to other educators, as PLN actions are dynamic, unique, and situated. Instead, we sought to identify common patterns across the dataset that might help scholars, teachers, administrators, and instructional coaches support educators in reflecting upon and engaging with their PLNs for professional growth.

Data Collection

Data was collected from participants in a five-week open online course for educators. The course had five modules: 1) Defining PLNs; 2) Evaluating PLNs; 3) Expanding PLNs; 4) Enriching PLN engagement; 5) Reflecting on PLN growth). Within each module, participants were asked to engage in a number of different activities to explore the content and expand their networks. Activities ranged from creating a visual representation of their PLN to analyzing and shifting their level of engagement in multiple spaces. Multiple data sets were collected including a pre-course survey, course artifacts, online community posts, PLN engagement spreadsheet, PLN evaluation forms, and post-course survey.

Participants

The participants ranged from undergraduate and graduate students in Education programs to Teacher Education faculty and professional development coaches (see Appendix Table 2). Eleven of the 13 participants were located in the United States and two were from Nigeria. The participants who were in teaching positions at the time of the pre-course survey (n=10) reported working in urban (n=4), suburban (n=3), and rural (n=3) schools. The participants reported having between 0 and 34 years of teaching experience, with an average of 18 years. Participants shared diverse reasons for enrolling in the course, from wanting to learn more about PLNs to learning how to teach online.

Data Analysis

We conducted a thematic analysis to identify patterns across the dataset related to participants' actions and engagement with their PLNs (Braun & Clarke, 2006). The thematic analysis was a multi-phase process that included curating and organizing the data, engaging in repeated cycles of reviewing, coding, and discussing the data, and developing criteria and themes to understand key elements within the dataset. Data triangulation and investigator triangulation techniques were designed to increase the credibility and trustworthiness of our data analysis (Twinning, Heller, Nussbaum, & Tsai, 2017).

Findings

Throughout the course, participants reported diverse interactions with their PLNs, ranging from reading online posts to engaging in virtual mentoring. Upon examination of the extensive dataset, we identified five elements that influenced participants' actions in online and in-person spaces: goals, time, confidence, relationships, and space dynamics.

Goals

Participants' professional goals (i.e., cognitive growth, affective growth, career growth, identity growth, social growth, supporter of growth) and PLN goals (i.e., expanding their network, giving back and supporting the growth of their network, reducing the size of their PLN, modifying their PLN to meet specific criteria) influenced the level and intensity of their engagement. For example, participants with the goal of career growth reported a higher level of interactions with others to build their network as opposed to participants who sought cognitive growth (e.g., gaining new ideas and teaching resources) who typically read posts, curated information, and reflected on their practice. Participants' often listed multiple goals that were as fluid as their PLN actions.

Time

Educators have limited time for learning with their PLNs given the complexity and demands of their job. The amount of time available influenced how educators engaged with their networks. Participants reported that when they had more time available, they were more likely to contribute to their networks and engage in knowledge co-construction. Limited time often resulted in lurking in spaces to see what others contributed.

Confidence

The participants in the study expressed a range in levels of confidence that influenced their actions. Those who were confident in navigating in-person and online spaces and using the features of the space (e.g., Twitter chat) to meet their needs were more likely to interact with others and share their knowledge. On the other hand, participants who lacked confidence in navigating a space or lacked confidence in their expertise were more likely to passively read or listen to others.

Relationships

The depth of relationships within a space shaped participants' actions. Participants who developed strong relationships with others, for example connecting with members in a Twitter Chat, were more likely to actively engage as opposed to those who were not well-connected.

Space Dynamics

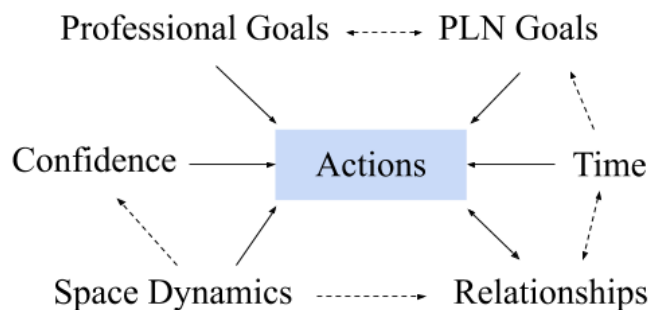
The atmosphere, environment, setup, and features of a space, whether in-person or online, influenced participants' engagement. For instance, in conference settings with chairs lined in rows and a presenter stage at the front, participants shared that they passively received information. However, in conference spaces that encouraged interaction, such as playgrounds or interactive workshops, participants were willing to engage in conversations with others and share their knowledge. This was similar in online spaces. However, some participants were more timid in online spaces regardless of their features because of fears of negatively influencing their digital reputation, online safety, criticism from people they did not know, and the permanency of what they might post.

Model of Elements of Influence on Participants' PLN Actions

Throughout the dataset, it was evident that the participants' actions were diverse and varied from time-to-time and space-to-space. Sometimes participants' actions solely consisted of passive knowledge consumption (unidirectional learning), while other times, participants actively contributed information, co-constructed knowledge, or collaborated with others (multidirectional learning). Participants' actions shifted within and among in-person and online spaces based on the multifaceted system of influence among goals, time, confidence, relationships, and space dynamics.

Based on our findings, we developed a model to showcase the dynamic nature of the five elements of influence on educators' PLN actions (see Figure 1). In this model, there are unidirectional lines with one arrow indicating the nature of the influence. For example, professional goals influenced actions, however, participants' actions didn't influence their professional goals. There are also bidirectional lines with arrows on each side, indicating a reciprocal relationship of influence. For instance, the strength of a relationship could influence participants' actions in a space, however, participants' actions (e.g., if they simply lurk in a space) can also influence the strength of the relationships they build. And, finally, there are dotted lines that indicate there may be a relationship between two elements at some times and in some spaces, but in other times and spaces, the relationship between the elements is not significant.

Figure 1
Elements of Influence on Participants' PLN Actions



Discussion

Upon examining educators' participation in and reflection upon their activities to grow their PLNs, we found that there is an interconnected network of elements that shape how and why educators interact with the people, spaces, and tools in their PLNs. We developed a new model that demonstrates the dynamic connections among these elements. Within this model, there is no hierarchy of power among the elements. Participants engaged in a range of actions based on the interplay of elements at the time of activity. Educators might lurk in an in-person setting one moment and participate in collaborative learning online the next given their goals, relationships, space dynamics, confidence, and time. Actions, therefore, are variable as responsive to these five elements. The variance in actions occurs within and across people and spaces - that is, actions differ from person-to-person and space-to-space. These findings reinforce the notion that PLNs are complex, multifaceted systems and that educators' learning is personalized; that is, there is no standardized pattern of action that occurs. These new findings contribute to a more comprehensive understanding of the dynamism of PLN activity, not qualified by action but rather by elements of influence.

In light of these findings, educators can benefit from expanding their awareness of the professional learning opportunities that can occur within PLNs and the elements that can shape these experiences. In terms of professional development and teacher preparation, we recommend that educators are given the opportunity to explore, analyze, and reflect upon how the network of elements shapes their actions within and across spaces in their PLNs and how their actions impact their learning and practice. Additionally, we encourage teacher educators, coaches, and administrators to collaborate with educators to identify ways to support their PLN learning and professional growth.

Conclusion

As educators' PLN actions vary within and across spaces at any given moment based on multiple influencers, this new model demonstrates the need to move beyond dichotomies (e.g., online vs. in-person; Twitter vs. Facebook; lurker vs. poster) and linear patterns of participation (e.g., from lurker to contributor) to develop a more holistic understanding of the complexity of educator learning. The model serves as a reflective tool for enriching PLN learning experiences and an analytical tool for changing the way scholars and teacher educators look at and support educator learning in the 21st century.

References

- Barab, S., Schatz, S., & Scheckler, R. 2004. "Using activity theory to conceptualize online community and using online community to conceptualize activity theory." *Mind, Culture, and Activity* 11(1): 25-47.
http://dx.doi.org/10.1207/s15327884mca1101_3
- Braun, V., & Clarke, V. 2006. "Using thematic analysis in psychology." *Qualitative Research in Psychology* 3(2): 77-101. <http://dx.doi.org/10.1191/1478088706qp063oa>
- Carpenter, J. P., & Green, T. D. 2017. "Mobile instant messaging for professional learning: Educators' perspectives on and uses of Voxer." *Teaching and Teacher Education* 68: 53-67. <https://doi.org/10.1016/j.tate.2017.08.008>
- Carpenter, J. P., & Krutka, D. G. 2014. "How and why educators use Twitter: A survey of the field." *Journal of Research on Technology in Education* 46(4): 414-434. <https://doi.org/10.1080/15391523.2014.925701>
- Carr, N., & Chambers, D. P. 2006. "Teacher professional learning in an online community: The experiences of the national quality schooling framework pilot project." *Technology, Pedagogy and Education* 15(2): 143-157.
<http://dx.doi.org/10.1080/14759390600769094>
- Duncan-Howell, J. 2010. "Teachers making connections: Online communities as a source of professional learning." *British Journal of Educational Technology* 41(2): 324-340. <https://doi.org/10.1111/j.1467-8535.2009.00953.x>
- Forbes, D. 2017. "Professional online presence and learning networks: Educating for ethical use of social media." *International Review of Research in Open and Distributed Learning* 18(7).
<https://doi.org/10.19173/irrodl.v18i7.2826>
- Forte, A., Humphreys, M., & Park, T. 2012. "Grassroots professional development: How teachers use twitter." In Proceedings from sixth international AAAI Conference on Weblogs and social media. Dublin, Ireland.
- Granovetter, M. S. 1977. "The strength of weak ties." In *Social Networks*, edited by S. Leinhardt, 347-367. New York City, NY: Academic Press. <https://doi.org/10.1016/B978-0-12-442450-0.50025-0>
- Hood, N. 2017. "Conceptualising online knowledge sharing: What teachers' perceptions can tell us." *Technology, Pedagogy and Education* 26(5): 573-585. <https://doi.org/10.1080/1475939X.2017.1348980>

- Hur, J. W., & Brush, T. A. 2009. "Teacher participation in online communities: Why do teachers want to participate in self-generated online communities of K-12 teachers?." *Journal of Research on Technology in Education* 41(3): 279-303. <https://doi.org/10.1080/15391523.2009.10782532>
- Jones, A., & Preece, J. 2006. "Online communities for teachers and lifelong learners: A framework for comparing similarities and identifying differences in communities of practice and communities of interest." *International Journal of Learning Technology* 2(2): 112-137. <https://doi.org/10.1504/IJLT.2006.010615>
- Kelly, N., & Antonio, A. 2016. "Teacher peer support in social network sites." *Teaching and Teacher Education* 56: 138-149. <https://doi.org/10.1016/j.tate.2016.02.007>
- Krutka, D., Carpenter, J., & Trust, T. (2016). Elements of engagement: A model of teacher interactions via professional learning networks. *Journal of Digital Learning in Teacher Education*, 32(4), 150-158.
- Lantz-Andersson, A., Lundin, M., & Selwyn, N. 2018. "Twenty years of online teacher communities: A systematic review of formally-organized and informally-developed professional learning groups." *Teaching and Teacher Education* 75: 302-315. <https://doi.org/10.1016/j.tate.2018.07.008>
- Prestridge, S. (2019). Categorising teachers' use of social media for their professional learning: A self-generating professional learning paradigm. *Computers & Education*, 129, 143-158.
- Seo, K. 2014. "Professional learning of observers, collaborators, and contributors in a teacher-created online community in Korea." *Asia Pacific Journal of Education* 34(3): 337-350. <https://doi.org/10.1080/02188791.2013.860004>
- Trust, T., Krutka, D.G., & Carpenter, J.P. (2016). 'Together we are better': Professional learning networks for teachers. *Computers & Education*. doi: 10.1016/j.compedu.2016.06.007.
- Trust, T. (2017). Using cultural historical activity theory to examine how teachers seek and share knowledge in a peer-to-peer professional development network. *Australasian Journal of Educational Technology*, 33(1), 98-113. <https://doi.org/10.14742/ajet.2593>
- Tsiotakis, P., & Jimoyiannis, A. 2016. "Critical factors towards analysing teachers' presence in on-line learning communities." *Internet and Higher Education* 28: 45-58. <https://doi.org/10.1016/j.iheduc.2015.09.002>
- Twinning, P., Heller, R.S., Nussbaum, M., & Tsai, C. 2017. "Some guidance on conducting and reporting qualitative studies." *Computers and Education* 106: A1-A9. <http://dx.doi.org/10.1016/j.compedu.2016.12.002>
- Veletsianos, G., Johnson, N., & Belikov, O. 2019. "Academics' social media use over time is associated with individual, relational, cultural and political factors." *British Journal of Educational Technology* 50(4). <https://doi.org/10.1111/bjet.12788>
- Wesely, P. M. 2013. "Investigating the community of practice of world language educators on Twitter." *Journal of Teacher Education* 64(4): 305-318. <https://doi.org/10.1177/0022487113489032>
- Zhang, S., Liu, Q., Chen, W., Wang, Q., & Huang, Z. 2017. "Interactive networks and social knowledge construction behavioral patterns in primary school teachers' online collaborative learning activities." *Computers & Education* 104: 1-17. <https://doi.org/10.1016/j.compedu.2016.10.011>