# The features and benefits of online PLCs

School resources

**Online professional learning communities (PLCs) connect teachers via platforms such as Twitter, Facebook, Zoom, wikis, Google suite and many more. They can be formal or informal communities, initiated by teachers or external experts, open to anyone or only to those participating in a specific program, and entirely online or blended (combined with face-to-face sessions). This article outlines reasons for using online PLCs, how they work, tips for facilitators, and considerations for choosing an online platform.**

## What are online PLCs?

Many online PLCs are initiated by teachers wanting to connect with other teachers with similar interests. They might do this through Twitter hashtags, such as #FlipClass, or Facebook groups, such as New Zealand Science Teachers. Twitter and Facebook have many online communities and groups that are free, publicly accessible, and easy for teachers to join. As well as teachers, participants include school leaders, researchers and educational organisations. Other teacher-initiated online communities have formed after participants meet face to face at conferences and continue to connect online in various ways, such as video conferencing or online classroom platforms.

Blended PLCs use an online component alongside face-to-face interactions. These are often PLCs facilitated by outside experts, such as university-led PLCs or Ministry of Education initiatives. The online component is often used to complement face-to-face sessions. Participants gain access to experts such as trained facilitators, coaches and mentors, university researchers, and experts in particular fields such as science.

## Why do teachers join online PLCs?

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One of the key reasons that teachers give for participating in an online PLC is to **overcome a sense of** sense of isolation could be due to the geographical isolation of being in a rural school, eacher of a particular subject in a school, a lack of collaboration between teachers, or a een a teacher and the school. Participation in an online PLC enables teachers to connect that can provide support and reassurance, including **opportunities to connect** with often not possible with face-to-face in school PLCs, such as teachers in other schools (and even in other countries), researchers and organisations. Another advantage of online PLCs is the ability for teachers from different schools to meet without having to drive through **congested urban traffic**. Virtual PLCs can also overcome the barrier of access to appropriate resources to aid teachers' providing online repositories of resources[2].

d to **less off-topic conversations** and therefore increase time on task. Analysis of a nity found that only 0.1% of conversations were off-topic[3], and virtual meetings have less sion than face-to-face meetings. Online PLCs are often used to connect teachers from several schools, and this can reduce the side-discussions about students, colleagues and leaders that occur when teachers from the same school meet. Face-to-face PLCs tend to include more socialising time, often over food and drink, whereas online PLCs have brief social connection at the start of meetings followed by focused PLC work. However, virtual PLCs are still able to build teachers' sense of



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social connection and belonging. One disadvantage of meeting online is the increased chance of other distractions from within the home such as interruptions from pets and family members[4].

## How do online PLCs work?

**Public forums such as Twitter and Facebook** are communities run by volunteers that may be organised around general themes, such as Universal Design for Learning or formative assessment, or may be subject focused. Twitter communities often use a hashtag that can be searched for or followed, such as #edchat, #pechat or #edchatNZ, and may also have accounts such as @edchatNZ. Volunteers act as 'moderators', and organise regular interactive sessions where they post questions as prompts for discussion and interact with participants (for example here or here)[5].

Facebook groups often require a user to request to join, which then has to be approved by a group administrator, usually a teacher who volunteers for this role. Groups may be focused on subjects such as science, or more general such as literacy teaching or primary school resources. Group members share resources, post questions which often lead to discussions, or ask for help or support, such as sole teachers of a subject connecting with others for moderation of assessments.

**Blended PLCs** are communities that use a wide variety of tools and structures, such as face-to-face professional development in the summer holidays followed by a year of connecting online, or blending face-to-face workshops with online communication over a period of two years. Online technologies used may include the **Google suite**, such as Classroom, Drive and Hangouts, **wikis**, **Nings** (an online social network creating platform), **blogs**, and **virtual meetings** using text chat, Skype (with and without video), Wimba classroom, Google+ hangouts or Zoom. The online platforms are used to facilitate ongoing discussions, and may also serve other purposes such as being a repository for resources.

## Are online PLCs effective?

Teachers' participation in open online platforms often involves features of **effective professional learning.** For example, researchers found that participants in Twitter synchronous chat sessions engaged in **active sense making** and sought for ways to **implement new ideas into practice[6],** and teachers collaborated through asynchronous Facebook interactions to **enhance their subject knowledge** and discuss new teaching methods[7]. However, this professional learning depends upon teachers being **active participants** in these online communities, and, while there is often a small group of very active and engaged users, the majority show minimal participation and tend to be observers who 'like', 're-tweet' or 'share' content[8]. In addition, many interactions are only transactional, with users sharing content or affirming what others have communicated[9].

Teachers who participated in face-to-face sessions before an online PLC reported feeling a strong sense of **social connection** and built similar relationships to groups that met only face to face[10]. These online communities also displayed features of effective PLCs, such as effective collaboration that included **sharing different perspectives**, rich professional conversations, trying new practices, and building content knowledge[11].

## Important factors for success

Online PLCs suffer from the same challenges as face-to-face PLCs, such as lack of participation or robust discussion[12], and would benefit from following the practices of effective face to face PLCs, such as having a clear focus, supporting collaboration, and using evidence. However, in addition to the usual guidelines for facilitators such as focusing discussions on evidence and pedagogy, there are some aspects that are unique to online PLCs:


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- **Establishing the purpose:** a key purpose of PLCs is teacher learning, but teachers do not necessarily focus on this, and cite a variety of reasons for using PLCs such as sharing resources, information, and practices[13]. Therefore, facilitators play a key role in facilitating discussion that leads to teacher learning[14], prompts deep thinking, and creates shared perspectives and meanings[15].
- **Establishing the purpose in blended PLCs: if the online component is one part of a blended PLC, facilitators need to be clear about how it supports the PLC – will the online platform be used as the main tool for discussions, or used to supplement face-to-face meetings through providing access to experts, or as an online resource repository?**[16]
- **Facilitator planning: To prepare for online text-based discussions, such as on Twitter, preparing explanations of protocols and questions that can be cut and pasted frees up the facilitator to be present to respond to community members. In Twitter, preparing and posting** questions as an image (for example here), makes it stand out in the Twitter feed so that participants can see it more easily – an important point when new tweets may be appearing every few seconds.
- **Build relationships in blended PLCs: Blended PLCs with regular participants differ from open online platforms such as Twitter, so it is important to build relationships so that the group functions well, as in face-to face PLCs.**
- **Reduce the social and increase the cognitive in open online platforms like Twitter: Users of Twitter communities were more likely to drop out when exposed to more social tweets such as greetings or expressions of appreciation, but more likely to remain if exposed to cognitively challenging content**[17]. The most effective types of tweets for sustaining participation were those that shared content, restated ideas, or discussions that aided sense making and knowledge development[18].

## Considerations when choosing and using a platform

Whether you are considering setting up an online PLC or thinking about joining one, the following questions provide some aspects to consider:

- Can you use technology that you are already familiar with? If the virtual PLC is connecting teachers from different schools, find out which technologies are already being used in each school. It is also helpful to check the security setting of your system – for example, Microsoft teams requires users to have an account at the same organisation, although it is possible to invite guest users (which may require administrator rights).
- If you are using text-only technology (such as Twitter or Slack), check whether the platform has a 'hand up' type feature so you know when someone has a question, and if you can see if someone is typing, so you don't move on to another question before everyone has had a chance to contribute or ask questions.
- Does it have audio and/or video, and how does the technology handle switching from one speaker to another – does the audio cut in and out?
- Can you share screen or share documents within the platform?
- What other technology might you need to supplement the online platform you use? For example, what additional technology would you need in order to use Google Docs for collaboration alongside Zoom?
- Are there polling features to get quick feedback on questions? For example, Zoom allows for polls to be created 'on the fly' inside the platform.


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- Does it have an archiving ability so that anyone who missed a session can read / watch it at a later date?
- How will people's internet connections affect their use of the technology – for example, does using video cause a lag or for their connection to drop out?
- Is the technology free to access, or is there a free account option? For example, a free Zoom account allows someone to host meetings for up to 40 minutes, but you need a paid account to host a meeting for longer than 40 minutes. Anyone can attend a meeting, and even those without a Zoom account can join using their web client and still have functionality such as share screen.
- Will the technology be available for a long time? This one is hard to answer, but, as an example, Google has announced that Hangouts, which has been used by some online PLCs, will be discontinued, although users can migrate to Google Chat.
- What support is available? For example, check out Zoom's Help Center for a range of how-to articles and videos. Also consider whether there are any expert users in your school that can offer support.
- What security features are there? For example, in Zoom a host must require participants to enter a password or enable a waiting room so that they control who enters the meeting.
- Is it a public forum? For example, any 'tweets' posted on Twitter are public - you can change account settings to restrict who views what you write, but this would limit participation in an open online forum as people would not be able to see what you post.

## Endnotes

1 Carpenter, D., & Munshower, P. (2020). Broadening borders to build better schools: Virtual professional learning communities. International Journal of Educational Management, 34(2), 296–314.

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4 McConnell, T., Parker, J., Eberhardt, J., Koehler, M., & Lundeberg, M. (2013). Virtual professional learning communities: Teachers' perceptions of virtual versus face-to-face professional development. Journal of Science Education & Technology, 22(3), 267–277.

5 New Zealand's education communities on Twitter have been inactive in recent years, but for a list of active Twitter communities around the globe look here.

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7 Patahuddin, S. M., & Logan, T. (2019). Facebook as a mechanism for informal teacher professional learning in Indonesia. Teacher Development, 23(1), 101–120.



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8 Goodyear, V. A., Parker, M., & Casey, A. (2019). Social media and teacher professional learning communities. Physical Education & Sport Pedagogy, 24(5), 421–433.

9 Rosenberg et al., 2020.

10 McConnell et al., 2013.

11 Carpenter & Munshower, 2020.

12 Hands, C., Guzar, K., & Rodrigue, A. (2015). The Art and Science of Leadership in Learning Environments: Facilitating a Professional Learning Community across Districts. Alberta Journal of Educational Research, 61(2), 226–242.

13 Xing, W., & Gao, F. (2018). Exploring the relationship between online discourse and commitment in Twitter professional learning communities. Computers & Education, 126, 388–398.

14 Goodyear et al., 2019.

15 Hands et. al., 2012.

16 Kim et al., 2012.

17 Rosenberg et al., 2020; Xing & Gao, 2018.

18 Rosenberg et al., 2020.

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