What kinds of social network groups do teachers find useful?

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Abstract

This paper presents results from a survey of teachers describing their two most useful Facebook groups (n=108 teachers). It addresses a gap in the literature, in that many studies investigate teachers within certain Facebook groups, but little is known about the types of groups that teachers-who-use-Facebook find to be most useful. Analysis of the survey results looks at the privacy, thematic focus, and regional focus of groups that teachers report to be useful. The study also addresses the question of "what kinds of peer support do teachers find within these useful Facebook groups?" The results show that useful Facebook groups tend to be private, positioned at a state/jurisdiction/national level, and have a clear thematic focus. Results also show that within these useful Facebook groups teachers report high levels of pragmatic support, with lower levels of modelling of practice, reflection and feedback, meaningful connections, and emotional support (in that order). The paper discusses the significance of these findings with respect to issues of policy, design, and facilitation of Social Network Sites (SNSs) as well as teacher preparation for competencies to thrive within SNSs.

Keywords

Teacher, Facebook, social network site, private, public, open, closed, theme

Introduction

Teachers use social network sites (SNSs) extensively in the context of a changing profession and a world that has become more networked over recent decades (Jones, 2015). Most teachers appear to make use of SNSs such as Facebook and Instagram (Kelly et al., 2014; Sumuer et al., 2014). Much of what teachers do within SNSs constitutes *networked learning* which is defined as "processes of collaborative, co-operative and collective inquiry, knowledge-creation and knowledgeable action, underpinned by trusting relationships, motivated by a sense of shared challenge and enabled by convivial technologies" (Networked Learning Editorial Collective, 2021, p. 319). Networked learning provides a "language and a way to conceptualize learning activity as deeply grounded on *connections* between people, ideas, and things" (Gourlay et al., 2021) and recognises that the *setting* within learning occurs matters (Goodyear, 2014). While Facebook may not be the most convivial of technologies, it does provide a setting within which teachers develop connections and support one another through collective inquiry. It is a platform that remains highly significant for the teaching profession. However, actionable knowledge from research about how Facebook might better support teachers' networked learning has large gaps, despite over 20 years of research into this domain (Kelly et al., 2021; Lantz-Andersson et al., 2018; Macià & García, 2016).

There is much diversity of types of groups of teachers within Facebook. Following their review of 96 studies of teachers in SNSs, Kelly et al. (2021) suggest that studies of groups of teachers within a SNS should report on six key properties, to be able to make meaningful comparisons between groups. Together these properties provide a characterisation of the *type of group* within a SNS that is being studied, through: (1) the size of the group (number of members, ideally with some indication of levels of activity expected for inclusion); (2) its origins (formal/informal); (3) its privacy settings (open/private); (4) its thematic focus (if one is present); (5) its regional focus (if one is present); and (6) the platform being used (e.g., Facebook). Often, some of these properties are difficult to establish—it is difficult for researchers to know the origins of a group and participants rarely know its size when asked. Yet an understanding of as many of these characteristics as possible allows for meaningful comparison between groups in SNSs and for convergent validity of findings across multiple studies over time (Kelly et al., 2021).

The present paper provides an understanding of *which kinds of Facebook group teachers report as being useful* as well as *the kinds of peer support that they are finding within these groups*. The paper was motivated by contradictory findings in studies of teachers in SNSs, in relation to the kinds of peer support that they report (Kelly et al., 2021; Lantz-Andersson et al., 2018; Macià & García, 2016). On the one hand, there are claims that teachers find deep forms of peer support within Facebook groups in the form of practice being modelled, feedback about practice being provided, and support for reflecting on practice. For example, Ab Rashid (2018) found for 34 English language teachers that their involvement in a Facebook group "contribute[d] to the development of their professional lives in the sense that it enable[d] them to dialogically reflect on the teaching-related experiences encountered" (p. 114). On the other hand, there is evidence that teachers do *not* find this kind of deep engagement, and instead find mostly superficial support in the form of pragmatic information and shallow social connections. In a study of five large, open teacher groups within Facebook, Kelly and Antonio (2016) found that there was "scant evidence of online support for reflection on practice, feedback about practice or modelling of practice, all forms of support that the theory stresses as important for teachers" (p. 148). A key factor in these seemingly contradictory findings is that not all Facebook groups are the same because, in short, teachers do different things in different kinds of group (Kelly, 2019). The challenge that remains is to gain a deeper level of understanding of which kinds of group are useful for which kinds of peer support (Kelly et al., 2021). As state, there is a need to "move beyond discussions of Facebook being either 'good' or 'bad'; 'empowering' or 'oppressive'" (Bergviken Rensfeldt et al., 2018, p. 247) to more deeply consider future possibilities for its use.

The paper is also motivated by the fact that there are many studies that provide a deep understanding of how teachers are supporting one another within this or that particular group in a SNS, as three recent reviews have described in depth (Kelly et al., 2021; Lantz-Andersson et al., 2018; Macià & García, 2016). There remains a lack of understanding of *which kinds of group* are useful for different kinds of support—where many studies do not adequately report on the type of group being studied preventing any kind of meta-analysis from past work (Kelly et al., 2021). This paper presents findings from a study that begins to address this gap by investigating two research questions:

(1) What *kinds of group* do teachers report as being their two most useful Facebook groups?
(2) What *kinds of peer support* do teachers report finding within their two most useful Facebook groups?

Background

Studying teachers in Facebook

Facebook is just one of many SNSs, where SNSs are defined as a "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system" (boyd & Ellison, 2007). Facebook has long been one of the most widely used SNS in the English-speaking world (Junco, 2013) and is popular amongst teachers.

Two prior studies address aspects of the two research questions directly. Firstly, Ranieri et al. (2012) conducted a survey of five Facebook groups (n=1107) to study the mechanisms underlying group membership and teachers' perceived impacts upon their professional learning. The found an unexpected result that teachers in groups with a generic focus, rather than a thematic focus, reported greater impacts on their 'real life'. They also found that teachers in generic groups reported more information sharing while teachers in thematic groups had more emotional support. Secondly, Kelly and Antonio (2016) looked at the kinds of peer support that were observed amongst teachers within five large open Facebook groups, discussed in more detail below.

Specific groups in Facebook have already been studied in-depth to understand different dimensions of teachers' networked learning. For example, Ab Rashid (2018) has looked at dialogic reflection amongst English teachers in Facebook. Chuang (2016) have studied teachers' use of Facebook to develop culturally responsive teaching. Confusions resulting from teacher use of Facebook for crossing personal-professional boundaries have also been explored Fox and Bird (2017). Facebook has been established as useful for developing a portfolio for preservice teachers by Kabilan (2016). Mixed methods have been strategically used by Lantz-Andersson et al. (2017) to understand the sharing of teachers' norms, skills, and competences within a Facebook group. A limitation on all of these (and other similar) studies is that they focus upon particular Facebook groups as the objects of study. There were no studies that could be found within the literature that asked a general population of inservice teachers about which groups they found most to be useful.

Finally, the discourse around how teachers develop their own *professional learning networks* (PLNs) is relevant here in understanding the kinds of groups that teachers use (Trust et al., 2016). There are competencies that teachers can possess for being able to find and engage with useful SNSs (Trust & Prestridge, 2021).

Peer social support within Facebook

The peer social support that teachers find within Facebook groups has been widely documented (e.g., Kelly & Antonio, 2016; Lundin et al., 2017; Macià & García, 2016). Peer social support is characterised by House as a response to the question of: "who gives what to whom regarding which problems?" (House, 1981). The lens of peer support can be used to describe the way that teachers' social relationships lead to positive professional outcomes, in terms (in this study) of online relationships within Facebook. Table 1 shows five types of social support that teachers find within Facebook groups. The development of this table follows the work of Kelly and Antonio (2016) in combining House's (1981) initial categories of social support with certain roles that teachers fulfil for one another, as described in a review by Clarke et al. (2014). Table 1 aims to capture a shift from *roles that teachers play for one another* (a response to House's question above) towards *types of support that teachers perceive their online groups to provide*. In making this shift, two categories from Kelly and Antonio (2016) have been refined as described in Table 1.

Table 1: Types of peer support within Facebook groups

Types of peer support found in teacher Facebook groups	*Roles of teachers in providing online peer support (Clarke et al., 2014; Kelly & Antonio, 2016)*	*Description and rationale (following Kelly & Antonio, 2016)*
Support for reflection and feedback on practice	Providers of feedback Supporters of reflection	Teachers use the group to access feedback about the what, why, and how of practice. The group may prompt reflection by offering suggestions, providing. supportive commentary, and advice. *Categories merged due to challenges in coding observed by Kelly and Antonio (2016)*
Support for meaningful connections	Agents of relationships	Teachers use the group to initiate and maintain relationships with other teachers and facilitate new connections.
Support from modelling of practice	Modelers of practice	Teachers look to one another for images of how to teach, through descriptions teachers provide of their own and others' practice.
Emotional support	Agents of socialisation	Teachers find empathy, comfort, and reassurance within the group. *Category modified based upon House (1981) to fit the group level and resolve lack of clarity observed during coding by Kelly and Antonio (2016)*
Pragmatic support	Advocates of the practical	Teachers assist each other with day-to-day problems and find pragmatic ways to work.

Methods

A survey approach was used to gain insight into these research questions. An instrument was developed with questions that focused upon the two Facebook groups that teachers found most useful. Of the six properties that characterise teacher groups in SNSs (Kelly et al., 2021), only four were considered for all groups: privacy, regionality, thematic focus, and platform (which was Facebook in this study). Participants were not asked about the group size or about origins of the group (formal/informal) as they were deemed unlikely to have enough knowledge of these variables to provide a useful response. The study received institutional ethics approval.

Data sources

A survey instrument was developed with 37 questions. Questions in the survey asked participants about demographic information (experience in teaching, teacher identity) as well as use of Facebook (in general), other social media platforms used, and the two Facebook groups "most useful to you as a teacher". For each *most useful* Facebook group, participants were asked for a description of the group, why it was useful, its privacy setting, the duration and quality of participation in the group, as well as five Likert scale questions about forms of peer support present within the group. Table 1 shows questions relevant to the analysis in this paper.

The two variables of clarity of focus (thematic focus), and regionality of groups were coded using supplied information (refer Coding and analysis section).

Table 1: Selected questions from the survey

Question	Response options
Please list the two Facebook groups that you find most useful to you as a teacher	Free text
For each group:	
What are [that group]'s privacy settings?	• Private (closed, with approval needed to join) or Secret (hidden and closed) • Public (open)
Please describe the focus of [that group]. For example, does it address a particular theme or relate to specific location or region?	Free text
Why is [that group] a useful Facebook group for you?	Free text
How many years (approximately) have you been a part of [that group]?	Integer
Does [that group] support you in developing meaningful connections with other teachers:	5-point Likert scale from Strongly Agree to Strongly Disagree
Is your membership of [that group] a source of emotional support	5-point Likert scale from Strongly Agree to Strongly Disagree
Is reflection and feedback encouraged in [that group]?	5-point Likert scale from Strongly Agree to Strongly Disagree
Does [that group] provide pragmatic support (e.g., a place to find resources):	5-point Likert scale from Strongly Agree to Strongly Disagree
Do the teachers in [that group] describe or model their teaching practice within the group?	5-point Likert scale from Strongly Agree to Strongly Disagree

Sampling and limitations

Participants for the survey were recruited through Facebook advertising, and where the survey remained open for 6 weeks in 2020. Due to Facebook advertisements criteria, there was a bias towards participants in Queensland Australia. Any teacher from any nation was welcome to respond, which was limited to early learning, primary, and secondary teachers (tertiary educators were excluded). Responses were received from 114 respondents of which 108 were valid (had at least one Facebook group with complete information). This included 8 teachers who only included information about their most useful Facebook group, but not the second most useful. Analysis took place at the level of *group* (rather than participant) leaving 208 Facebook groups with complete information were included in the study (i.e., the most useful and second most useful were included for most participants; some did not successfully complete the 'second most useful').

The study was limited in three ways in terms of the sampling. Firstly, only teachers who were already using the Facebook platform were invited to participate. Secondly, only teachers who chose to respond to the call for participants were included, representing a self-selected group of participants. These are significant limitations upon the sample that limit generalisability (a widespread issue within the literature on teachers in SNSs as described by Kelly et al., 2021). The sample size is extremely small in comparison with the population of teachers who use Facebook; it should in no way be considered a representative sample, as the study was not limited to any one country. Additionally, only English-speaking teachers were invited to participate in the study, which limits any claims about how these results might transfer into other language contexts. Finally, the participants were recruited through Facebook advertising. Facebook's algorithms represent a black box to researchers in terms of knowing who has seen the advertisement and in what context (Kosinski et al. 2015).

Coding and analysis

Two of the questions required coding prior to analysis: each of the two Facebook groups cited by respondents was coded for *regionality* and for the presence of a *clarity of focus* (does the group have a theme?) as suggested by Kelly et al. (2021). This was done using the coding scheme outlined in Table 2. Each participant specified their top two most useful Facebook groups. Coding was performed for both of these variables using a heuristic of:
    (1) is [regionality/focus] clear from the title of the group? If not clear, then:
    (2) is [regionality/focus] clear from the description of the group given? If not clear, then:

(3) look the group up on Facebook to see if the [regionality/focus] is discernible

All groups were coded (n=208) by two different raters. Cohen's κ was run to determine if there was agreement between coders for these two variables of regionality and clarity of focus. There was substantial agreement between coders for both of these variables (Altman, 1990), where regionality κ = .702, p < .0005 and clarity of focus κ =.763, p < .0005.

Table 2: Coded variables and descriptions

Variable	Description	Values	Description
Regionality	Does the group specify a connection to a specific region?	International	Explicit international focus (e.g., 'worldwide')
		National	Nationwide focus (e.g., 'Australia')
		State/jurisdiction	Statewide focus (e.g., 'Maine')
		Local/school	Local region/city/area (e.g., 'Queenstown') or school
		None	Unspecified regionality
Clarity of focus	Does the group have a clear focus specified?	Clear focus	Specified subject area ('English'), year level ('prep'), or area of interest ('remote teaching support')
		No focus	No specified subject area

Findings

What kinds of group do teachers report as their "most useful"?

Table 3 shows findings with respect to the groups that teachers reported as being the most useful and second most useful Facebook groups. Similarity was observed between the *type of group* that teachers described as being their most and second-most useful groups. The main exception to this trend was in regionality, where most useful groups were most likely to be state/jurisdiction based (51%) whereas second-most useful groups were only 28% likely to be state/jurisdiction based and were most (31%) likely to be international.

Considering the full set of 208 Facebook groups reported by teachers (which we will describe as 'groups that teachers found useful'), it is notable that teachers overwhelmingly reported that the groups they found useful were *private* (86%) rather than public (14%). They also found to be useful groups that were *state/jurisdiction focussed or were national*, with a combined 66% compared with 27% that had no region specified and just 7% that were either international or local/school. The groups that teachers found useful groups were also more likely to have a *clear thematic focus* (69%) than not (31%).

Table 3: Characteristics of teachers' most useful (self-report) Facebook groups

Variable	Most useful only		Second most useful		Both groups	
Privacy	*n*	*%*	*n*	*%*	*n*	*%*
Private (closed or secret)	95	88%	84	84%	179	86%
Public (open)	13	12%	16	16%	29	14%
Total	108	100%	100	100%	208	100%
Regionality						
International	4	4%	6	6%	10	5%
National	23	21%	31	31%	54	26%
State/jurisdiction	55	51%	28	28%	83	40%
Local/school	2	2%	2	2%	4	2%
No region	24	22%	33	33%	57	27%
Total	108	100%	100	100%	208	100%
Focus						
No focus	30	28%	34	34%	64	31%
Clear thematic focus	78	72%	66	66%	144	69%
Total	**108**	**100%**	**100**	**100%**	**208**	**100%**

What kinds of peer support are occurring within these groups?

The groups that teachers found most useful were a frequent source of pragmatic support, which was reported to occur within 89% of the groups, Table 4, where teachers were provided with "a place to find resources" as an example of what pragmatic support looks like. This can be contrasted with emotional support, which was reported to occur within just 51% of groups. Seven participants who responded to every other question in the survey chose not to respond to this question and these were coded as "No or neutral"—this was the only question that had any instance of no response in the included sample. 70% of groups were reported to be a place where modelling of practice occurred, compared to 64% and 63% of groups for reflection and feedback and meaningful connections respectively.

Table 4: Types of peer support reported in teachers' most useful (self-reported) Facebook groups

Type of peer support	Yes		No or neutral		Total	
Meaningful connections	130	63%	78	38%	208	100%
Emotional support	106	51%	95	49%	208	100%
Reflection and feedback	132	64%	76	37%	208	100%
Pragmatic support	184	89%	24	12%	208	100%
Modelling practice	146	70%	62	30%	208	100%

Discussion

RQ1: The kinds of groups that teachers find useful

Within the stated limitations, these data provide a characterisation of the kinds of groups within SNSs that teachers find useful. It is significant for research in this domain that teachers overwhelmingly report groups that are *private* as being their most useful groups. This fits with the hypotheses of earlier studies that the most important activities of teachers may be happening within private groups (Kelly & Antonio, 2016; Mercieca & Kelly, 2018). It fits with well-established theories around communities of practice, that the spectrum of openness-privacy affects the dynamics of participation through establishment of trust (Macià & García, 2016; Wenger et al., 2009). *Methodologically, researchers studying open groups of teachers may not be looking in the right places if they wish to understand where significant professional learning is occurring.*

The results further suggest that teachers find groups useful that are at state/jurisdiction/national levels, but less so at an international level, local level, or a group with region unspecified. This seems pragmatic and entirely predictable, given that syllabus content, teacher registration, and teacher membership of a school system all occur at these same levels (of state/jurisdiction/national) in many (if not most) countries.

Thematically, teachers report within their top two most useful groups more of the groups that have a clear thematic focus (69%) than groups that do not (31%). This contradicts the findings of Ranieri et al. (2012) who suggested that groups without a thematic focus might be more useful. The discrepancy in results may be due to the sampling of Ranieri et al. (2012) who recruited teachers within five Facebook groups, which is likely to bias responses to this kind of question. The finding here, that teachers find report groups with a thematic focus as their most useful groups, fits with the theory that teachers will want to participate in groups that align with their professional practices (Lave & Wenger, 1991). This is to say that for any particular context (a teacher within a school system, within a school) there will be a level of identity that fits their needs best.

There are competing tensions between larger groups being more useful through having more activity and greater amounts of knowledge from experience; yet a diluting effect can be seen when the practices within such a large group are not aligned (Clara et al., 2017). Any repeat of the study described here should include the *size* of these groups that teachers report as being their most useful to understand this effect. Anecdotally, many of the groups stated by teachers as their most useful appear to be *large* (between 200-2000 members) but further investigation is required. A formal analysis of the size of teachers' groups is not possible, due to the passage of time since the survey was carried out—a further limitation of the present study.

Despite these (significant) limitations, the results do provide the best indication yet of the kinds of groups that teachers find to be useful, which can be characterised as private, state/jurisdiction/national, and thematic (often related to subject area). Further investigation is required to confirm these findings and to further explore the size of groups and their origin. It may become apparent through such work that there is indeed a 'sweet spot' for groups that seems to be a good match between the affordances of the technology (i.e., Facebook groups) and the needs of teachers. More likely is that more will become known about the contexts within which certain groups

are useful for certain teachers and the relationships between the design of online platforms and knowledge about "who gives what to whom regarding which problems" (House, 1981).

RQ2: The kinds of peer support found within those groups

The findings with respect to RQ2 can be contextualised through consideration of the conclusions from the study of Kelly and Antonio (2016). A key finding in that study was that the large, open Facebook groups showed a great deal of pragmatic support (66% of all on-topic posts) and some meaningful connection-making being supported (21% of all on-topic posts), but far less evidence of other kinds of support (13% combined). These findings were established through discourse analysis of what teachers were actually saying, in contrast to the present study which relies upon self-reporting of teachers' perceptions of their groups. It is then interesting that the survey results presented in this paper produced a similar result in terms of the dominance of pragmatic support, where 89% of most useful groups were reported to be a source of pragmatic support. This represents convergence in evidence around the idea that pragmatic support (most notably the sharing of resources) is the primary kind of support accessed by teachers within Facebook groups of any kind, a theme touched upon in the review conducted by Lantz-Andersson et al. (2018).

Further investigation was carried out to look at the associations between *privacy* and the *types of peer support*, Table 6, using Fisher's Exact Test to measure these associations. It is interesting in these results that modelling of practice seems to be strongly associated with private groups—perhaps because of the greater trust that these private spaces engender. In contrast, teachers seemed to find (or not find) support for reflection and feedback within both private and public groups; there was not a significant association with privacy.

The level of emotional support (51%) across all groups is low when compared to other kinds of support. They could equally be seen as high considering the barriers to emotional connection that are present within Facebook as a platform. The term "emotional support" is so loaded—and likely to mean different things to different respondents—that not much should be made of this finding, which lends itself to more qualitative methods of study.

Table 6: Types of peer support reported in teachers' most useful (self-reported) Facebook groups

Type of peer support	*Association with privacy variable (Fisher's Exact Test)*
Meaningful connections	0.017
Emotional support	0.818
Reflection and feedback	0.256
Pragmatic support	0.015
Modelling practice	0.004

Towards actionable knowledge

A framework for moving towards actionable knowledge with respect to teachers in SNSs was proposed by Kelly et al. (2021). It considers domains of change as: (1) *policy* regarding teachers in SNSs (and related funding); (2) *design* of SNSs (the setting); (3) *facilitation* of SNSs (and design for learning within them); and (4) *teacher preparation/competency* for using SNSs. The present study gives insight into the kinds of groups that teachers find useful, as well as the kinds of peer support that are associated with those groups. A number of hypotheses for these domains of change can be proposed in light of this work:

- **Policy:** Formal institutions such as governments, teacher education institutions, and teachers' associations might use these findings when deciding upon the types of groups to convene to support their teachers. This might involve making groups private, keeping them at the state/jurisdiction or national level, and giving them a clear thematic focus.
- **Design:** The study doesn't say much about the design of SNSs as it is focussed upon the commercial platform of Facebook. However, the proposal for *fractal design* of online networks—in which there is affordance for both large open spaces to leverage large networks and smaller private spaces for trust—still fits with the present findings (Clara et al., 2017; Holmes, 2013)
- **Facilitation**: Further investigation is required into the significance of facilitation for these findings. Nothing is known about how/whether the groups included in this study were facilitated. How might facilitation change the mix of peer support found within a group?

- **Teacher preparation for use of SNSs:** There are already well-argued proposals for teachers to learn competencies required to make good use of SNSs (Trust & Prestridge, 2021). The present findings may form part of such a curriculum, in having expectations of what kinds of support they are likely to find in different places (e.g., pragmatic support within Facebook) as well as which kinds of group to look for (e.g., joining private rather than public groups, thematic rather than unfocused groups, etc.).

Conclusions and further research

This paper has presented early findings from a study of the types of Facebook group that teachers find useful. It has clearly stated its limitations due to sampling. Despite these limitations, the findings help to confirm two hypotheses that are present within the literature: that it's more likely for a private (rather than public) group to be among a teachers' most useful groups; and that pragmatic support (e.g., sharing of resources) is the primary way in which teachers support one another within Facebook. The approach used in this paper, of asking a generalised population of teachers (i.e., not recruited from within one or a few existing groups), may be useful for future studies as a way of understanding what kinds of peer support teachers find in different kinds of group.

This work towards understanding teachers in SNSs is relevant for the broader field of networked learning. It contributes towards knowledge about teachers' forms of collective inquiry and knowledge creation and the way that relationships and technologies underpin them. It does this, primarily, by contributing to an understanding of the context of teachers' networked learning in SNSs and methods for researching this domain. Often, researchers wish to study the networked learning within one particular group of teachers within one particular platform (Kelly et al., 2021). The work described here helps to understand both *which* groups might be a focus for study, as well as the *context* for those groups alongside teachers' perception of that context.

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