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Exploring the inner workings of the Southern African Geography Teachers' Association Google Group

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Abstract

This article presents the findings of the second phase of an ongoing study aimed at understanding how the Southern African Geography Teachers' Association (SAGTA) online Google Group, an emergent Professional Learning Community (PLC), may support and enhance school geography education and teacher professional development. It looks closely at the inner workings of the Google Group and considers the supportive role it played during and after the COVID-19 pandemic (that is, March 2020 to December 2021 and January to November 2022). Data generated by the posts made during and after the pandemic, were analysed and categorised. A purposive sample from each category was selected for further

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in-depth analysis. The findings are discussed in relation to national imperatives, (including for example, teacher professional development, social justice, inequality and learner underperformance) and global education discourses for transformative education.

The findings reveal a predominance of curriculum content information sharing posts focused on 'the what' of teaching, with less attention to 'the how' to teach, and an emphasis on 'what is' rather than 'what might be' (future oriented, transformative learning) called for by international education discourses. The Google Group offers support to secondary school teachers in a narrow slice of South African schools. The findings reveal gaps and omissions which we contend must be addressed so that the Google Group can mature as a PLC which supports an extended view of teacher professionalism. We offer some suggestions on how this may be achieved in practice which may be useful to the users of the Google Group, the SAGTA Google Group and the broader geography education community.

Keywords: curriculum content knowledge, pedagogical content knowledge, teacher professionalism, professional learning community, transformative learning

Introduction

We live in a socio-ecologically fragile and rapidly changing world which was turned upside down in an instant by the COVID-19 pandemic which caught us by surprise. From the start of the first ever national lockdown on 26 March 2020 until the end of December 2021, we lived in a state of crisis, risk and vulnerability. During this 21 month period, education at all levels of the system including schooling was impacted.

Globally, 'crisis education' was characterised by a rapid switch to online and remote learning (Kidman & Chang, 2020a). In South Africa, it also consisted of blended learning that included rotational classes and access to online, radio and television resources. The literature contains many accounts of the pedagogical and technical difficulties and challenges associated with crisis education, and the opportunities it afforded for innovation and re-imagining (for example, Donista-Schmidt & Ramot, 2020; Moorhouse, 2020; Day, Chang, Chung, Doolittle, Housel & McDanile,

2021; Wilmot, 2022). The pandemic also highlighted the unevenness of access to resources and education globally and nationally (Kidman & Chang, 2020b; du Preez & le Grange, 2020).

There is an expectation that teachers constantly update their own knowledge and incorporate it into their teaching (Department of Basic Education (DBE), 2015; Prenger, Poortman & Handelzalts, 2019). Given the rapid changes that took place during the COVID-19 pandemic, we argue that more than ever before, teachers need to be life-long learners who have the necessary geography discipline and curriculum knowledge, pedagogical content knowledge and resources for responsive teaching and learning in 'crisis' and 'normal' education contexts. The pandemic brought home the need for teachers to be technologically skilled and resourceful, self-directed learners. It accentuated the unevenness in access to resources and exposed the digital divide in South Africa where many cannot afford access to online platforms and devices (du Preez & le Grange, 2020). Universities and schools took pragmatic steps to shift to online learning but the efficiency and pace at which they did so depended on many factors including for example, the readiness of teachers for online learning, the conversion of and availability of online resources, and the geographical location of students and learners. Many living in remote rural areas struggled with internet connectivity. Furthermore, with globalisation and instantaneous communication on social media, we witnessed the spread of an increasing amount of misinformation. This, according to Kidman & Chang requires teaching and learning about crisis events in a holistic, critical way so that people get the 'full story' of what is going on (2020a: 108).

Professional Learning Communities (PLCs) are seen as playing an important role enabling teacher professional learning, enhancing classroom practice and improving learning outcomes (DBE, 2015). In Phase 1 of the ongoing research project, we described how the South African Geography Teachers' Network Google Group, comprising mostly secondary school teachers, (hereafter referred to as the Google Group), established in 2009, was the first online PLC established for geography teachers (Goldschagg & Wilmot, 2020). We argued that it is similar to an 'informal' PLC described by Cranefield and Yoong (2009) in that participation is voluntary and personalised by

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the members who share and receive information according to their own pace and needs. Our research showed that teachers used the Google Group for sharing links to useful websites and social media reports, documents, digital resources and for making announcements. We concluded that the Google Group was an emergent PLC providing a safe and collegial space for teachers and offering exciting possibilities for teacher professional learning that could enhance the quality of teaching and learning in South African secondary school geography (Goldschagg & Wilmot, 2020).

The findings of Phase 1 of our research were useful but limited (Goldschagg & Wilmot, 2020). They did not provide insights for understanding how the Google Group supports teachers. This is addressed in Phase 2 of the research (the present study) which looks at the inner workings of the Google Group. Our main contention is that while there can be no doubt that the Google Group is playing a supportive role for teachers, there are gaps and omissions that should be addressed so that teacher professional learning is expanded and strengthened. We conclude with some considerations of how this may be achieved in practice.

Global and national realities

Poor learning outcomes

Poor learning outcomes have been a persistent problem since the national curriculum was introduced in 1998. The current iteration, the National Curriculum and Assessment Policy Statement (CAPS) implemented in 2012, has the ambitious goal of

> *… equipping learners, irrespective of their socio-economic background, race, gender, physical ability or intellectual ability, with the knowledge, skills and values necessary for self-fulfilment, and meaningful participation in society as citizens of a free country (DBE, 2011: 4)*

The CAPS curriculum is strongly content-referenced, committed to active, enquiry and critical learning approaches, and environmental and social justice (ibid.: 4-5).

Using the Grade 12 National Senior Certificate examination results as a proxy for quality, it is evident that these goals have not yet been achieved. In 2013, 80% of the 239 657 candidates who wrote Geography achieved a pass at 30% (the minimum pass mark) (DBE, 2014). Nine years later, in 2022, of the 368 882 candidates who wrote

Geography, 81.3% achieved a pass at 30% (Department of Basic Education, 2023), a small improvement of just 1.3%. Wilmot and Dube's research (2015), albeit a small scale study, nevertheless opened a window to the complex and multifaceted realities in which high school teachers in the Eastern Cape province of South Africa work, and the systemic and personal factors constraining quality school geography education. Personal factors included a lack of discipline knowledge (for example, GIS) and pedagogical content knowledge and skills (including for example, enquiry learning approaches and fieldwork) and learning support materials. These authors concluded with the proposition that one way of addressing quality education was by establishing "a learning community" (Prawat, 1996: 108) in which school-based teachers work collaboratively and in mutually beneficial partnerships with university-based teacher educators.

Poor learning outcomes in geography are an ongoing concern. According to the 2021 DBE National Senior Certificate Examination diagnostic report for Geography, there was "a decline in the pass rate at 30% (Level 2) from 75,3% in 2020 to 74,3% in 2021, with a corresponding decrease at the 40% (Level 3) from 46,2% to 43,2%. This follows a general downward trend in pass rates over the past three years" (DBE, 2022: 102). The report suggests ways of improving learning outcomes all of which focus on what teachers should do rather than how it should be done in practice. The following examples, all of which are relevant to our research, state what must be done but do not provide guidelines on how to implement this in practice:

- When a geographical problem (issue) is studied, learners should focus on the causes and effects, both negative and positive impacts, as well as possible solutions or sustainable strategies to be implemented. Environmental justice issues could be assessed. As in-depth knowledge of such issues is essential, this might well involve informal research on the part of the teacher. There are many reliable Geographical websites to visit that will provide up to-date and valid information. Teachers are encouraged to highlight current local geographical events that are documented in the news and integrate these into classroom discussions.
- Geography is a dynamic subject and new information on numerous topics is updated

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regularly. Teachers are therefore encouraged to collect resources on an ongoing basis and to be aware of current events that should be taught in Grade 12. These should then be incorporated into lessons to ensure that lessons are topical and relevant to learners. As life-long learners, teachers must set the right example by staying abreast of new developments in their subject.

- Teachers should become proficient in adapting diagrams and combining resources to suit the questions they have set. The internet has a plethora of Google images which teachers can download on specific topics in addition to the considerable printed media items available. Teachers should check the validity and accuracy of material from the internet as it is not guaranteed to be correct. Reliable geographical sources should be used where possible and these should be properly contextualised (DBE, 2022: 109).

We acknowledge that it is beyond the scope of the diagnostic report to address how teachers may enact these suggestions in their classrooms. This is where we believe the Google Group could play a role in helping to fill this pedagogical gap. The Google Group is an ideal platform on which to share examples of good practice that include guidelines and practical examples of how to mediate a text, use a resource or design and implement an activity (for example fieldwork or GIS). The findings of Phase 1 of our research showed that teachers shared useful links and resources with little, if any, explanation or guidance on how to use these in their teaching (Goldschagg & Wilmot, 2020). A detailed account of how online lessons in a teacher education module were designed, and texts and activities mediated is provided by Wilmot (2022). The Google Group is an ideal platform on which teachers, particularly experienced teachers, could be sharing similar 'how to do' examples (or best practice) with other teachers.

Professional Learning Communities

The literature describes professional learning communities in different ways including, for example, as professional learning groups, collaborative learning communities, critical friend groups, study groups, professional networks etc. (Thomas & Songqwaru, 2021: 293). In 2011, the DBE and Department of Higher Education and Training (DHET), launched the Integrated

Strategic Planning Framework for Teacher Education and Development (ISPFTED) to "strengthen the progress and address the challenges in improving teacher quality" (DBE, 2015: 3). This framework includes the establishment of PLCs which are described as

> *... communities that provide the setting and necessary support for groups of classroom teachers, school managers and subject advisors to participate collectively in determining their own developmental trajectories, and to set up activities that will drive their development (DBE/DHET, ISPTED, 2011: 14).*

In 2015, the DBE published a guiding framework for teacher professional development which acknowledges that teachers face many challenges including limited access to quality continuous professional development opportunities (DBE, 2015). The document concedes that much professional development is isolated, once off, lacks a coherent strategy, has no follow-up and is largely ineffective. The DBE asserts that PLCs should be characterised by, inter alia: (1) mutual trust and respect (2) support challenge and constructive critique (3) shared vision and focus on learning for all learners (4) collaborative and reflective enquiry (5) inclusive membership and (6) leadership (DBE, 2015: 5). Importantly, the ISPTED and the Framework for Teacher Professional Development recognise the central role teachers play in PLCs. A similar view is expressed by Thomas and Songqwaru (2021) who argue that teachers should be the ones who conceptualise and lead PLCs with support from other stakeholders including, for example, universities. Furthermore, these authors maintain that "effective professional development should offer teachers opportunities to collaborate with each other and to engage with ideas and materials. The focus should be on building teachers' skills, competencies, and attitudes, rather than on mere transfer of information" (ibid.: 292). The extent to which the Google Group is supporting this type of teachers' professional development is considered later.

In our view, some of the most successful PLCs in southern Africa have been those established by the Environmental Education (EE) community. There is a burgeoning body of evidence of how different stakeholders in the EE community are collaborating in a structured, focused, and transformative manner. This is

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evident, for example, in a collection of research papers in *Teaching and Learning for Change* (Schudel, Songqwaru, Tshiningayamwe & Lotz-Sisitka, 2021) and *Transformative Learning for Teachers* (Lotz-Sisitka, Schudel, Wilmot, Songqwaru, O'Donoghue, & Chikunda, 2022). A strong theme running through this body of work is the need for knowledgeable teachers who have the capability and agency to enact active and critical learning approaches in the context in which they work. Importantly, the PLCs must support teachers' enactment of transformative learning called for by the Education for Sustainable Development (ESD) global education discourse (UNESCO, 2020).

Transformative ESD Learning

Global ESD discourse encompasses a view of education as transformative in purpose, concerned with both the acquisition of new knowledge, values and skills, and participation enabled through active learning that foregrounds capability and agency (UNESCO, 2015, 2016, 2020). It calls for a new social contract for education "grounded in human rights and based on principles of non-discrimination, social justice, respect for life, human dignity and cultural diversity. It must encompass an ethic of care, reciprocity, and solidarity" (UNESCO, 2021: 3). The new contract is needed "to repair injustices while transforming the future" (ibid., 3). Furthermore, it calls for teaching to be further professionalised as

> *… a collaborative endeavour where teachers are recognised for their work as knowledge producers and key figures in educational and social transformation. Collaboration and teamwork should characterise the work of teachers. Reflection, research and the creation of knowledge and new pedagogical practices should become integral to teaching (UNESCO, 2021: 17).*

In our view, one way of re-orienting to this new vision of education is through the establishment of professional networks and learning communities.

The *Fundisa for Change*, a national ESD teacher education network (Schudel et al., 2021), is a good example of how the new vision is being enacted in teacher education. The network was established to strengthen teachers' knowledge of new environmental concepts (for example, climate change, environmental impact), and improve their teaching and assessment

practices. This PLC's model consists of five-day professional development workshops where teachers engage with carefully mediated texts modelling active learning approaches. While this tightly structured model of teacher professional support is not appropriate to the Google Group PLC, the latter does provide a space in which innovative, active learning activities and mediated resources can be shared by teachers and others working in the field of geography education. The extent to which this happened on the Google Group during and after the COVID-19 pandemic, is discussed in the findings of our research.

International Geography Education perspectives

The international geography education community affirms that geography plays an important role in helping young people to acquire knowledge, skills and values necessary for engaging critically with complex, multifaceted sustainability and development issues (see for example, IGU-CGE 2016 Charter on Geographical Education). Secondly, it recognises the need for geography education to engage more actively in ESD's call for transformative learning (Chang & Kidman, 2019). These authors argue for geography education that is more political in its orientation and focused on "…uncovering structures and processes that enable and maintain injustice, a lack of democracy and a failure to realise sustainable forms of development" (Chang & Kidman, 2019, p.1). In the context of the COVID-19 pandemic, they assert that geography education needs to be far more engaged with risk and disaster management, and mitigation (Kidman & Chang, 2020a and b). In our view, the Google Group creates a space for teachers to engage in conversation about what this means for shifting practice. It offers a platform for sharing ideas and practical examples (activities and resources) that show how this may be enacted in practice. The extent to which this is happening on the Google Group is discussed in the section on the findings.

The latest publication in the International Geography Education Springer book series, *Geography Teacher Education and Professionalization* (Artvinli, Gryl, Lee & Mitchell, 2022), contains a collection of papers describing the different approaches in different parts of the world and provides insights on the common challenges. These authors maintain:

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> *demonstrated how change on a global scale affects geographical resources and opportunities for countries. Geography is a subject that addresses major phenomena and challenges of the present and future such as the Anthropocene, globalization, sustainability, risk management, smart environments/digitalization, urbanization, and spatial participation, and thus can help to enable future citizens, and stakeholders to address these complex issues more adequately than before (ibid.: 2).*

Given the rapidly changing, precarious context, and the calls from the international education and geography education communities, we argue for strengthened teacher professional learning that is transformative in purpose, embraces cultural diversity, social justice, collaboration and sharing. It should support teachers' acquisition of disciplinary knowledge including knowledge of matters of concern and wicked or difficult to resolve problems for example climate change, and it should support their learning of new pedagogical processes that involve engaging with these matters of concern and envisaging new futures (Lotz-Sisitka & Lupele, 2017). This new, expanded view of teacher professional development should be the vision of all geography teacher professional qualifications, accredited short courses, professional associations, and professional learning communities including the Google Group.

Theoretical perspectives

In Phase 2 of our research we worked with Shulman and Shulman's (2004) ideas of teacher knowledge as an analytical tool for generating insights into the type/s of support that the Google Group offered teachers. We concur with these authors that "an accomplished teacher must understand what must be taught, as well as how to teach it" (ibid.: 262). It consists of a number of elements, the following of which are relevant to our research:

- Disciplinary/ content/ interdisciplinary knowledge (understanding the subject matter of the curriculum in a deep, flexible, and generative way) [i.e. the 'what']
- Pedagogical content knowledge (comprehending the pedagogical principles and being capable of

designing and implementing instruction consistent with them) [i.e. the how']

The findings of the data analysis are viewed through this lens of teacher learning and the extended view described in the preceding section.

The research method

The goal of Phase 2 of our research was to understand how the Google Group PLC supported teachers during and after the COVID-19 pandemic. The following research questions were addressed:

1. What is the nature and frequency of the posts on the Google Group during two periods: first, the period of education crisis (remote and online teaching and learning) during the COVID-19 pandemic, and second, 2022 (the first year post-COVID-19) when education and schools returned to face to face teaching?
2. What type of support is offered and sought on the Google Group?
3. How should/could the support offered by the Google Group be expanded, strengthened and enhanced?

The analysis of the posts on the Google Group was done in two stages. In the first stage, the one author undertook a content analysis of all the posts (n=476) made on the Google Group from March 2020 to November 2022 (the time of writing). Posts advertising jobs, seeking employment, offering services, advertising products etc. were set aside. The remainder (n=461) were analysed according to subject line and grouped into topics. Commonalities in the analysis were identified using a colour coding system and topics were grouped into three broad thematic categories:

1. Curriculum content (according to the topics/themes in South African Curriculum and Assessment Policy Statement (CAPS) for Geography in the Further Education and Training (FET) phase of schooling (Grades 10 to 12)
2. Professional (activities, requests for advice etc.)
3. Resources

A table of analysis showing the topics in each of the three categories was produced (see Table 1). A comparative analysis of the posts in the two periods was then undertaken to understand similarities and differences in the frequency and level of activity in

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each category in the two periods.

Given the large number of posts (461) in the period of study, a purposive sample was selected for further in-depth analysis in the second stage of the analysis. This made our examining and digging deeper into the content of the posts more manageable. The purposive sample consisted of the topics receiving the most posts in each of the three categories. For Curriculum Content Topics, we selected the topic with the most posts in Physical (Climate) and Human (Population) Geography. For the Professional category, we selected Webinars, and for Resources, we selected General Resources and Scoops (resources obtained by the librarian at one school who curates content on request from the school's Geography teachers). Analytical memos were drawn up in the form of a spreadsheet that captured the following information about each post: date of the post; subject line; CAPS Topic (where applicable); description of the post's content. The analytical memos were reviewed and checked for accuracy by the researchers. Examples of typical and atypical posts in each of the three categories illustrating the nature of the support provided, are included in the discussion of the findings.

Google Group users' perceptions and experiences of the online platform are not included in Phase 2 of our research. This is the focus of Phase 3 which is in process.

Ethics Clearance and Permission

A research ethics application was submitted and approved, and an ethical clearance certificate was issued by the second author's university ethics committee. Permission to undertake an analysis was granted in writing by the Google Group's administrators.

Key findings

Table 1 shows the number of posts made in each topic in the two periods. The number of posts made during the COVID-19 period was substantially higher (296 compared to 165) because the COVID-19 period covered a longer period (21 months) than the post-COVID (11 months). The average per month was almost the same (14 and 15). We expected a higher level of activity during the pandemic when conventional / traditional face to face teaching and sharing was not possible.

Table 1 shows that the topics with the highest number of posts in the category Curriculum Content (i.e. Climatology, Population and Map skills) and Resources (General

Resources and 'Scoops') were consistent in both periods. This was not the case for the category Professional where Webinars, the SANGO Olympiad and Requests for General Advice received the most posts during and after COVID-19 respectively.

TABLE 1: THEMATIC SUMMARY OF POSTS MADE DURING AND AFTER COVID

CATEGORY	**COVID** (March 2020 - December 2021)*	**Post COVID** (January 2022 – November 2022)*
CURRICULUM CONTENT TOPICS		
Climate	35	16
Geomorphology (minerals, landforms)	12	3
Water, fluvial and glaciers	4	1
Drought and desertification	1	
Settlement	11	2
Population	16	10
Sustainability and Resources	4	4
Economic Geography	4	1
Development	4	1
Trade and Transport	1	
Map Skills	14	13
GIS	10	4
Total number of posts	**116**	**55**
PROFESSIONAL		
SAGTA helpdesk	1	
SAGTA Webinars	16	3
SANGO Olympiad	16	
Invitation to participate in research	2	5
JoGEA	6	1
SAGTA conference	1	6
IGU	1	
Geomentoring		3
Seeking Assessment advice	13	1

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CATEGORY	COVID (March 2020 - December 2021)*	Post COVID (January 2022 – November 2022)*
About COVID	8	
Requesting general advice	8	35
Subject promotion to Gr9	3	1
Online teaching	1	
Total number of posts	**76**	**55**
RESOURCES		
Prepshare	9	9
UN Handbook	1	
Revision lectures online	4	3
General Resources + 'Scoops'	82	43
Open access to commercial resources	8	
Total number of posts	**104**	**55**
TOTAL NUMBER OF POSTS	**296 in 21 months**	**165 In 11 months**
Average posts per month	**14**	**15**

The second analytical activity involved delving into the content of the posts in each category to understand the nature of the support being requested and offered by the Google Group users, and the type of teacher knowledge (that is, curriculum subject knowledge or pedagogical content knowledge) being enabled. Clearly it is difficult to generalise across the three categories as the Curriculum Content category is more thematic and topic focussed, and Professional and Resources are more wide-ranging. However, all three showed a strong emphasis on information sharing.

In the Curriculum Content category, most posts focus on CAPS content ('the what') with little attention paid to 'the how' (pedagogical content knowledge). Posts seldom contained an explanation of how the information (for example, a link to a website, YouTube video, article, graphic or PowerPoint presentation) could be/had been used by the contributor. The emphasis suggests a dominance of the 'what' that supports and builds teachers' subject content knowledge.

The absence of providing mediation or scaffolding means that it is left to the individual teacher to consider how to use a resource. This raises an interesting question of the relationship between the 'what' and the 'how' of teaching, and whether sharing what is useful without explaining how it can be /is being used is sufficient for developing "knowledgeable teachers" (Shulman & Shulman, 2004: 262). We suggest that in future more attention should be given to building teachers' pedagogical content knowledge. To this end, the Google Group would benefit from sharing good practice examples of how information is being used in the classroom.

From our work as university-based teacher educators who visit schools to observe student teachers when completing the teaching practical component of their qualification, we are aware that innovative, change-oriented teaching is happening albeit in small pockets. The Google Group is an ideal space in which to share innovative teaching practices that extend beyond information sharing. In our view, it will also help to address the huge inequalities that persist in South African schooling. Perhaps teacher educators visiting schools should be playing a stronger enabler role persuading outstanding teachers to post examples of mediated resources and activities they are using in their classrooms including those supporting learning major global challenges like climate change. And they could be encouraged to post explicit guidelines on 'how to do' fieldwork or practical GIS activities that extend beyond the minimum standards set by the curriculum. Furthermore, teacher educators could set their student teachers research-based pedagogical assignments which require them to plan and implement transformative learning strategies in the classroom. Examples of good practice could then be made accessible to all the teachers who use the Google Group. Sharing the 'how' of good classroom practices would strengthen the support offered by the Google Group.

Closer analysis of the 'Scoops' in the Resources category showed that these posts contained clickable links to articles and reports with a geographical focus (for example, BBC - 'Is climate change to blame for extreme heat in Europe?'; The Economist -'The global food crisis, explained'; BBC News - 'UK's record-breaking heatwave 'basically impossible' without climate change'; Al Jazeera - 'Pakistan floods devastate agriculture and livelihood'; The Guardian - 'How Kenya is flooding in a drought: It's

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complicated'; Greenpeace - 'Plastic is EVERYWHERE'; National Geographic - 'Rethinking our relationship with water' etc.). The scoops cover key global challenges and issues. However, without any guidance on how to use them, we are concerned that their uptake and usage may be limited and/or superficial. Generally the posts focused on sharing information on problems of the day, but without indicating how or where this information could be used in teaching. There is little, if any, evidence of transformative learning for the future as called for in the international literature, or how teachers are engaging with the 'big questions' of education that are being asked globally (including, for example, how do we orientate teaching and learning to education for sustainable development? How do we teach for social justice and inclusion? How do we decolonise the curriculum? How do we prepare young people for extreme natural events and climate change?). There is scope for sharing practical examples of how teachers are addressing complex, multi-faceted often controversial issues in their classrooms, and the Google Group PLC is an ideal platform for this.

In the category Professional, we looked closely at the posts regarding webinars held during and post the COVID pandemic. Table 1 shows that 16 webinars were held during the 21 months of the COVID period of our research compared to 3 in the 11 months post-COVID-19. The first announcement about webinars, posted on 22 May 2020 announced that regular webinars were being planned under the auspices of SAGTA to help teachers who were finding online teaching challenging or wanted to share suggestions and ideas. The communique stated that

> *…any and all questions/ discussions around online teaching, resources, methods to teach specific topics, etc. can be discussed in this forum over a live webinar where advice can be shared. No education policy discussions, amended Grade 12 requirements, opinions or complaining will be allowed (Google Group post, 22 May 2020).*

The analysis of the webinars revealed a balance between those focused on problems of the day which were offered by experienced teachers and what could be described as an eclectic set of topics presented by invited guests (i.e. professional 'outsiders' who are not members of the SAGTA). The focus of the former included map skills and putting GIS

theory into practice; sugar production and the KZN industrial area; the latest updates to the Topo Map Downloader, while the latter included presentations by a climatologist on confusing weather concepts, a geologist on rapacious rivers and the trails they leave; a teacher educator on problem-based learning, a geographer on mapping Africa's rivers, etc. Video-recordings of webinars together with resources were placed in a folder under Prepshare on the SAGTA website. They were thus available for teachers to re-visit in their own time. We think this is useful and perhaps ways could be found to make the recordings and resources easier to access. Webinars included presentations by outside organisations (the South African National Space Agency), associations (the International Geographical Union-Commission on Geographical Education), Ground Truth, and Elevate (South Africa's largest study skills provider). All the webinars irrespective of whether they were being facilitated by experienced knowledgeable teachers, experts in the field or outside organisations, we believe, were worthwhile in terms of supporting and extending Google Group users' discipline content knowledge (mostly) and pedagogical content knowledge. As useful as they are, we found no evidence of webinars that in our view would support the extended professional learning we argue for. Webinars have the potential to support and enhance teacher learning of new knowledge of matters of concerns that arise at the social-political-economic- ecological interface.

In the subsequent 11 months of post-COVID, there appears to have been a loss in webinar momentum with only three webinars taking place: an introduction to the new Map Downloader Pro; SAGTA Geospatial Data Science Certificate webinar; and a webinar on Gqeberha-Kariega and Manganese. Webinars provide exciting opportunities for teachers to participate actively in knowledge construction and expansion. Webinars' relevance and worthwhileness could be enhanced by offering them on a regular basis possibly with a themed approach that aligns to what is being taught in the Grade 10-12 curriculum at that time followed by a discussion with one or more experienced teachers on how to incorporate the webinar's content into teaching.

The analysis showed a focus on geography teaching at the Further Education and Training level (Grades 10-12) with little, if any, engagement with geography teaching and learning

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at the Senior or Intermediate Phase levels. Table 1 shows posts with the subject line 'Subject Promotion to Grade 9'. These posts were focused on subject choice talks and presentations to Grade 9s. Addressing this gap may enrich and expand the conversations on the group, and benefit teachers working at lower levels of the schooling system.

A scrutiny of contributors' signature lines and email addresses, many of which included the name of the user's school, showed that the Google Group PLC is skewed in terms of school, race and gender. There can be no doubt that the Google Group is a vibrant network. However, over representation of contributors and participants from schools representing a thin slice of the schooling system is a concern. It raises questions about how access and participation may be expanded, and how the challenges experienced by teachers: 1) whose mother tongue is not English, 2) who teach in poorly resourced, mostly rural schools, and 3) who have technological and connectivity challenges, could be addressed. The Google Group PLC has the potential to play a significant role in connecting teachers from diverse South African school contexts (urban and rural, well-resourced and under-resourced; functional and dysfunctional schools). This is an important consideration in the South African context of inequality and low learning outcomes in school geography. Unrestricted as it is by time or geographical location, it could be a powerful mechanism for creating a more inclusive, socially just school geography teacher professional learning community. However, given our history and the way teachers tend to work in silos, this will not happen spontaneously. It requires a strategic intervention driven by a vision and commitment to build the field of school geography and an extended concept of teacher professionalism. It requires vision, commitment and leadership and begs the question of who is best placed to take on this leadership role. In our view this is a matter that should be addressed by the Southern African Geography Teachers' Association (SAGTA).

The findings reveal a predominance of curriculum content information sharing posts focused on 'the what' of teaching, with less attention to 'the how' to teach. However, the pattern of current use of the platform is concerning and needs to change in order to mitigate the risk of filling teachers' inboxes with information that they may, or may not, know how to use creatively and critically in their

teaching. Shulman and Shulman argue for "an understanding of the subject matter of the curriculum in a deep, flexible and generative way" **and** (emphasis ours) "understanding pedagogical principles and being able to design and implement instruction consistent with them" (2004: 262). More attention needs to be given to pedagogy (the 'how'). This is particularly important given contemporary transformative global education discourses, and the need to shift practice particularly in contexts where current practices do not encourage learners to think critically, apply their knowledge to different contexts or critique the status quo, all of which are needed for the 21st century (IGU-CGE, 2016; Lotz-Sistka & Lupele, 2017; UNESCO, 2021; Lotz-Sisitka, Schudel, Wilmot, Songqwaru, O'Donoghue, & Chikunda, 2022).

We offer some considerations on how it could be expanded and strengthened.

Considerations for expanding and strengthening the support offered by the Google Group

To address the gaps and absences identified by the analysis, access and participation should be expanded so that the Google Group PLC is more inclusive and supportive of the diversity of schools and teachers in the national schooling system. This will be the focus of the third paper. New voices may enrich the conversations and help to create learning opportunities for teachers in schools with limited resources and limited opportunities for professional development. One possibility is enlisting final year BEd and PGCE students and asking them while on teaching practice to invite their mentor teachers to join the Google Group. Many of these mentor teachers work in schools that are not yet represented in the Google Group. This could be an effective way of reaching teachers in remote rural locations and poorly resourced schools where there may be limited opportunities for professional learning. By implication this means establishing stronger connections between teacher educators in universities and the SAGTA under whose auspices the Google Group is located. Furthermore, it would provide opportunities for expanding content knowledge vertically (down the system to primary geography education).

Google Group users should be encouraged to offer more guidelines and explicit examples of how they mediate activities and resources used in their teaching. This will strengthen

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and enhance the support for teachers who are new or who may be struggling. Experienced teachers need to be invited to share their 'how to' on the Google Group, and university based teacher educators and academic geographers need to be encouraged to share examples of what transformative learning processes look like and how they can be implemented.

The Google Group PLC could/should be a platform that exposes teachers to new knowledge about complex, multifaceted matters of concern many of which involve engagement with risk and difficult to resolve problems, and transformative learning processes. It should provide more opportunities for teachers to engage with transformative pedagogies and matters of concerns arising at the social-ecological interface. One possibility is to offer more webinars with presentations and engaging activities facilitated by academic geographers, teacher educators and researchers working in the field. This has implications for the organisation of the Google Group and will require a stronger moderator role. Consideration should be given to establishing mutually beneficial partnerships with university based teacher educators as this too may enrich the conversations and support the shifting of practice so that it is more closely aligned to transformative learning (UNESCO, 2020).

Conclusion

This article describes how we set about exploring the inner workings of the Google Group PLC for the purpose of understanding how it supported teachers during and after the COVID-19 pandemic. There can be no doubt that the Google Group PLC provides spontaneous, informal professional learning opportunities and support for teachers that are not confined to place or time. It played an important supportive role during and after the COVID-19 pandemic. However, the analysis suggests a professional learning community that is still in its infancy with a limited sphere of influence in the school geography terrain. This needs to be expanded as a matter of urgency for social justice purposes so that teachers from the full spectrum of South African schools use and benefit professionally from this flexible, free Google Group PLC.

The analysis showed a preponderance of posts requesting and offering curriculum content knowledge support and resources for teaching in both periods under study.

There is little evidence of the Google Group supporting or extending teachers' pedagogical content knowledge, and no evidence of support for transformative learning processes advocated by the international literature. The emphasis on 'the what' suggests a narrow view of teacher professionalism primarily focused on curriculum content sharing.

Given the state of planet Earth, the pressure our life support systems are under, rising poverty and inequality, and the rapid growth of cities particularly in Africa, our teaching of school geography can no longer be business as usual. We need to shift practices to align with transformative learning for a sustainable future for all. It's an ambitious agenda which we must support at all levels and by all means at our disposal. The Google Group PLC offers exciting opportunities in this regard. However, it requires re-thinking the purpose and organisation of the Google Group so that it shifts from infancy to maturity with an extended view of teacher professionalism which aligns with the global call for transformative learning.

Author Bios

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Competing interests

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References

Artvinli, E., Gryl, I., Lee, J., Mitchell, J.T. (eds). (2022). *Geography Teacher Education and Professionalization*. International Perspectives on Geographical Education. Springer, Cham. https://doi.org/10.1007/978-3-031-04891-3_1

Chang, C-H. & Kidman, G. (2019). Curriculum, pedagogy and assessment in geographical education – for whom and for what purpose? International *Research in Geographical and Environmental Education*, 28:1, 1-4, DOI: 10.1080/10382046.2019.1578526

Cranefield, J. and Yoong, P. (2009). Crossings: Embedding personal professional knowledge in a complex online community environment, *Online Information Review*, 33(2), 257-275. https://doi.org/10.1108/14684520910951203.

Day, T., Chang, I-C., Chung, CK., Doolittle, W.E., Housel, J. & McDaniel, P.N. (2021). The immediate impact of COVID-19 on post-secondary teaching and learning. *The Professional Geographer*, 73(1); 1-13. https://doi.org/10.1080/00330124.2020.1823864

Department of Basic Education [DBE] and Department of Higher Education and Training [DHET]. (2011). *Integrated Strategic Planning Framework for Teacher Education and Development in South Africa, 2011-2025: Technical report*. Pretoria: Government Printer.

Department of Basic Education. (2011). *National Curriculum Statement. Curriculum and Assessment Policy Statement Grades 10-12*. Department of Basic Education: Pretoria.

Department of Basic Education. (2014). *National Senior Certificate Examination. Schools Subject Report.* Pretoria: Department of Basic Education.

Department of Basic Education. (2015). *Professional Learning Communities: A model for South African schools.* Department of Basic Education: Pretoria.

Department of Basic Education. (2022). NSC Examinations: 2021 Diagnostic Report Part 1. Downloaded on 28 November 2022 from https://www.education.gov.za/?fileticket=4JVOD_6ncds%3D&tabid=92&portalid=0&mid=4359

Department of Basic Education. (2023). NSC Examinations: 2022 Diagnostic Report Part 1. Downloaded on 14 April 2023 from https://www.education.gov.za/Resources/Reports.aspx

Donista-Schmidt, S. & Ramot, R. (2020). Opportunities and challenges: Teacher education in Israel in the COVID-19 pandemic. *Journal of Education for Teaching,* 46(4): 586-595. https://doi.org/10.1080/02607476.2020.1799708

du Preez, P. & le Grange, L. (2020). The COVID-19 Pandemic, Online Teaching/ Learning, the Digital Divide, and Epistemological Access. *Alternation*, 1, 90-106. DOI: https://doi.org/10.29086/978-0-9869936-1-9/2020/AASBS01 90

Goldschagg, P. and Wilmot, D. (2020). Exploring the role of a Google Group in enabling lesson resource sharing in a South African geography teachers' professional learning community. *Journal of Geography Education in Africa* (JoGEA), 3: 51-62. DOI: https://doi.org/10.46622/jogea.v3i.2546

International Geographical Union-Commission on Geographical Education. (2016). International Charter on Geographical Education. Downloaded from https://www.igu-cge.org/wp-content/uploads/2019/03/IGU_2016_eng_ver25Feb2019.pdf

Kidman, G. & Chang, C-H. (2020a). What does "crisis" education look like? *International Research in Geographical and Environmental Education*, 29(2), 107-111. DOI:10.1080/10382046.2020.1730095

Kidman, G. & Chang, C-H. (2020b). Encouraging preparedness in geographical and environmental education for a post-pandemic future. *International Research in Geographical and Environmental Education*, 29(4), 279-282. DOI:10.1080/10382046.2020.1831204

Lotz-Sisitka, H., & Lupele 2017. (2017). ESD, learning and quality education in Africa: Learning today for tomorrow. In H. Lotz-Sisitka, O. Shumba, J. Lupele, & D. Wilmot (Eds.), *Schooling for Sustainable Development in Africa* (pp. 3-24). Springer: Cham.

Lotz-Sisitka, H., Schudel, I., Wilmot, D., Songqwaru, Z., O'Donoghue, R., & Chikunda, C. (2022). Transformative Learning for Teacher Educators: Making sense of Education for Sustainable Development (ESD) policy emphasis on transformative education. In Eberth, A., Goller, A., Günther, J., Hanke, M., Holz, V., Krug, A., Roncévic, K. & Singer- Brodowski, M. (Ed.) (in press): *Bildung für nachhaltige Entwicklung – Aktuelle Impulse zu Digitalisierung, Inklusion und Klimaschutz.* (Ökologie und Erziehungswissenschaft, Schriftenreihe der BNE-

ISSN: 2788-9114

Kommission in der DGfE). Opladen: Barbara Budrich.

Moorhouse, B,J. (2020). Adaptations to a face-to-face initial teacher education course 'forced' on-line due to the COVID-19 pandemic. *Journal of Education for Teaching,* 46(4); 609-611.

Prawat, R. (1996). Learning community, commitment and school reform, *Journal of Curriculum Studies*, 28:1, 91-110, DOI: 10.1080/0022027980280105

Prenger, R., Poortman, C.L, and Handelzalts, A. (2019). *The Effects of Networked Professional Learning Communities*. Journal of Teacher Education. 70(5), 441-452.

Schudel,I., Songqwaru,Z., Tshiningayamwe, S. & Lotz-Sisitka, H.(2021). *Teaching and Learning for Change - Education and Sustainability in South Africa*. African Minds: Somerset West.

Shulman, L. & Shulman, J. (2004). How and what teachers learn: a shifting perspective. *Journal of Curriculum Studies*, 36(2), 257-271. DOI: 10.1080/0022027032000148298

Thomas, K. & Songqwaru, Z. (2021). Developing Teacher Capabilities and Valued Functionings in Professional Learning Communities: Focus on Environmental Content Knowledge in Natural Sciences, pp. 291-305. In I. Schudel, Z. Songqwaru, S. Tshiningayamwe, H. Lotz-Sisitka, (Eds.), *Teaching and Learning for Change*. Somerset West: African Minds.

UNESCO. (2015). Re-thinking Education. UNESCO: Paris. http://publishing.unesco.org/details.aspx?Code_Livre=4996

UNESCO. (2016). *Global Education Monitoring Report. Education for people and planet: Creating a sustainable future for all*. UNESCO: Paris. https://en.unesco.org/gem-report/report/2016/education-people-and-planet-creating-sustainable-futures-all

UNESCO. (2020). *Education for Sustainable Development. A roadmap.* ESD for 2030. https://www.gcedclearinghouse.org/sites/default/files/resources/200782eng.pdf

UNESCO. (2021). International Commission for the Futures of Education. (2021). *Reimagining Our Futures Together - A new social contract for education*. https://unesdoc.unesco.org/ark:/48223/pf0000379707.locale=e

Wilmot, D., & Dube, C. (2015). Opening a window onto school geography in selected public schools in the Eastern Cape Province. *South African Geographical Journal.* http://dx.doi.org/10.1080/0373624

5.2015.1028989

Wilmot, D. (2023). Using COVID-19 as a vehicle for enabling geographical thinking in teacher education. *Journal of Geography Education in Africa* (JoGEA),_6:_1 – 31._https://doi.org/10.46622/jogea.v6i1.4330

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