

Exploring the Informal Online Practices of In-service English Language Teachers on Facebook as part of their Continuing Professional Development

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Abstract

Although the use of social networks, especially Facebook, has become a common practice among educational communities in Egypt, studies have yet to explore the online practices of in-service (language) teachers as part of Continuing Professional Development (hereafter CPD). Therefore, this study investigated English language teachers' informal online professional development that may include some types of language learning for improving their pedagogical content knowledge. It also explored differences between teachers' perceived use of Facebook as a venue of CPD. This study employed a mixed-method design, collecting qualitative and quantitative data via content analysis and a questionnaire. The participants were 180 English-language Egyptian in-service teachers. The qualitative analysis of teacher's posts demonstrates that CPD informal groups, as maintained by Egyptian EFL teachers, display different aspects of professional knowledge. Results showed that the data yielded seven main categories: General Pedagogical Knowledge (PK), Content Knowledge (CK), L2 Pedagogical Content Knowledge, Knowledge of L2 Learners, Knowledge of Educational context and Knowledge of (professional) self and miscellaneous topics. Besides, ANOVA's Welch test indicated significant differences in the means of the sum scores of the questionnaire as well as two sub-domains (PK and CK) among primary, preparatory and secondary teachers in some aspects, such as pronunciation and vocabulary. This study concludes that CPD Facebook groups provide wide options and spaces for continuous learning and informal study for EFL teachers. Pedagogical implications and recommendations for further research were suggested.

Keywords

In-service English Language Teachers- Informal Online Practices on Facebook - Continuing Professional Development

استكشاف الممارسات غير الرسمية عبر الإنترنت لمعلمي اللغة الإنجليزية أثناء الخدمة على الفيسبوك كجزء من التنمية المهنية المستدامة

على الرغم من أن استخدام شبكات التواصل الاجتماعي، وخاصة الفيسبوك، أصبح ممارسة شائعة بين المجتمعات التعليمية في مصر، إلا أن الدراسات لم تتناول بعد الممارسات الأونلاين (عبر الإنترنت) لمعلمي اللغة المصريين أثناء الخدمة كجزء من التنمية المهنية المستدامة) المشار إليها بـ (CPD لذلك، تناولت هذه الدراسة بالبحث النمو المهني غير الرسمي عبر الإنترنت لمعلمي اللغة الإنجليزية (أثناء الخدمة)، والذي قد يشمل بعض أنواع وأنماط تعلم اللغة ودراستها بهدف تحسين معرفتهم بالمحتوى التربوي/التعليمي. كما تناولت الدراسة الاختلافات القائمة بين أشكال الاستخدام المدركة للفيسبوك لدى المعلمين باعتباره نمواً مهنيًا مستمرًا. ولتحقيق أهداف البحث، استخدمت هذه الدراسة تصميمًا مختلطًا، جمعت تحت مظلتها بيانات كيفية (تحليل محتوى) وأخرى كمية/عددية (استبيان). وبلغ المشاركون 180 معلمًا مصريًا أثناء الخدمة يدرسون الإنجليزية. ويوضح التحليل الكيفي لمنشورات ومشاركات المعلمين أن مجموعات النمو المهني غير الرسمية، كما يديرها معلمو اللغة الإنجليزية كلغة أجنبية في مصر، تعرض جوانب مختلفة من المعرفة المهنية. أظهرت النتائج أن البيانات أسفرت عن استخلاص فئات رئيسة وهي: المعرفة التربوية العامة، ومعرفة المحتوى، ومعرفة المحتوى التربوي للغة الثانية، ومعرفة متعلمي اللغة الثانية، ومعرفة السياق التعليمي ومعرفة الذات (المهنية) وموضوعات أخرى متنوعة. إلى جانب ذلك، أشار اختبار ويلش لتحليل التباين إلى وجود فروق ذات دلالة إحصائية في متوسطات مجموع درجات الاستبيان بالإضافة إلى مجالين فرعيين (بين معلمي المرحلة الابتدائية والإعدادية والثانوية في بعض الجوانب، مثل النطق والمفردات. وخلصت هذه الدراسة إلى أن مجموعات CPD على Facebook توفر خيارات ومساحات واسعة للتعلم المستمر والدراسة غير الرسمية لمعلمي اللغة الإنجليزية كلغة أجنبية. وقد تم اقتراح بعض المضامين التربوية والتوصيات ببحوث مستقبلية.

INTRODUCTION

Continuing Professional Development (CPD) for teachers in general and English language teachers in particular has become a vital educational issue. Ideally, a teacher can learn informally beyond the scope of any formal training. It is assumed that much of the teachers' learning occurs informally through talking with colleagues and students (Hustler et al., 2003; Megginson & Whitaker, 2017). What distinguishes CPD is being an ongoing process of learning where people assume full responsibility for their learning and cognitive development by engaging in an ongoing process of reflection and action (Megginson & Whitaker, 2017, p3). To put it in a nutshell, CPD refers to a range of practices, including (1) teacher-learning communities, (2) online interactions, and (3) self-learning and research (Hargreaves et al., 2016, 55).

A plethora of studies showed various positive effects of CPD on teachers' professional development (Magidin de Kramer et al., 2012; Richmond, 2014; Trust & Horrocks, 2017; Bragg, Walsh & Heyeres, 2021; Zakaria, 2021). Nevertheless, most previous studies on online CPD and *Facebook* EFL teachers' communities have been conducted in Western countries (Mai et al., 2020). A few studies investigated EFL teachers' online communities in developing countries like Egypt, where EFL teachers face economic difficulties, low resources and limited professional development opportunities (Tran et al., 2017; Mai et al., 2020). Le et al. (2021, 546) revealed how EFL Vietnamese teachers with limited resources use ubiquitous digital tools like Facebook for their professional learning, particularly in developing countries. Consequently, the present study explores the Egyptian EFL informal practices in *Facebook* communities. Besides, few studies compared differences among teachers in informal online communities such as *Facebook*. Whereas Patahuddin et al. (2022, 1) examined gender differences, the present study compared teachers' uses based on the stage they teach (primary or secondary).

LITERATURE REVIEW

CPD may be represented in several forms, ranging from formal training courses to learning through common daily work activities and practices. (Collin, et al., 2012, p156). One of those infinite possibilities and options is employing technology for CPD purposes. Current CPD practices use new technologies to increase teachers' access to online professional development and platforms (Çelen & Seferoglu, 2020) in an ongoing fashion relevant to classroom problems and

emerging teaching/learning issues. Since the COVID-19 pandemic, resorting to technology was compulsory. According to Bragg et al., (2021, p. 1), the online medium was the sole solution for education and overcoming the crisis, facilitated by online collaboration tools and applications. Since then, social networks and online platforms have spread worldwide for communicating with other professionals.

Teachers benefit from social media elements in both formal professional development programme and informal learning networks. (Greenhow et al., 2020, p 1). For example, social networks can foster an online collaborative teacher community (Xing & Gao, 2018). These communities can work as platforms or spaces where in-service teachers can perform many CPD practices.

Many teachers increasingly seek informal learning to cope with technological and societal changes. The ubiquity of social networks such as *Facebook* facilitates joining teachers' online communities and, hence, virtual communication. Such communities provide rich opportunities for continuous engagement, collaborative learning (Shelton & Archambault, 2018), and social support (Chung & Chen, 2018). Collaboration seems to be fundamental to the organisational structure of learning communities and may be a necessary feature of the most beneficial CPD. (Cassidy et al., 2008, p 232). Besides, being engaged in virtual teacher communities, active participants create opportunities for "problem-solving, reflective thinking, knowledge exchange, and social emotion sharing" (Mai et al., 2020, p 140).

In particular, teachers use various online platforms for professional development purposes. For example, teachers often communicate with other professionals to exchange practices and ideas (Carpenter & Krutka, 2015), enhance pedagogical knowledge for professional development purposes (Bissessar, 2014; Rutherford, 2010), collaborate to co-constructed new knowledge (Scurr, 2017) or intentionally using *Facebook* spaces to access diverse and valuable learning opportunities (Woodford, Southcott, & Gindidis, 2023). In addition, emerging technologies provide teachers with opportunities to collaborate with colleagues and construct a powerful and meaningful learning environment (Brooks, 2010). Participants in such networks and learning communities are likely to reflect, inquire and challenge each other collaboratively (Hargreaves et al., 2016, 55). Thus, online teacher communities could contribute to social, emotional and pedagogical development.

Vygotsky's theory of the zone of proximal development (ZPD), which denotes a shift in emphasis from teacher-centred to student-centred learning (Moll &

Greenberg, 1990, p 320), may be compatible with the usage of social networks for CPD. ZPD focuses on the proactive invention or use of innovative strategies by English teachers to complete tasks and comprehend them while working together to learn. Reviewing the literature, we could come up with other learning/teaching functions that social networks can perform along with their primary function as a collaborative tool for sharing content; for example, social networks also work as (1) a source of knowledge and information; (2) an online learning platform; and (3) a publishing vehicle. According to research by Gutierrez and Bryan (2010, pp 42-47), teacher involvement in virtual communities of practice facilitated ongoing professional growth, which improved student outcomes, promoted school change beyond the individual classroom, and focused on improving teacher practices.

Nevertheless, a few studies have investigated teachers' online practices for CPD purposes (e.g., Richmond, 2014; Cansoy, 2017; Trust & Horrocks, 2017). For instance, learning community model workshops had a substantial impact on instructors' vocabulary, writing habits, content understanding, and total English language arts vocabulary (Magidin de Kramer et al., 2012, pp 235-259). Besides, as stated by Trust and Horrocks (2017, 645), online communities provide teacher rich professional development opportunities "within multiple domains (e.g., individual, classroom, school, blended community of practice) while also shaping the growth of these domains" when they engage in a blended community of practice.

Facebook, as an informal community, provides many benefits for teachers. First, it allows them to engage in informal professional development "that is participant-driven, practical, collaborative, dynamic in nature and available 24 hours a day from any Internet-connected location" (Rutherford, 2010, 60). In line with this view, Both Siemens and Weller (2011, pp164-70) and Manca and Ranieri (2013, pp 487-504) make the case that social networks—in general, and Facebook in particular—could complicate the lines between social, learning, and recreational areas, suggesting that combining different kinds of activities can be beneficial. As a result, through engaging with a multi-level setting that incorporates numerous academic, social, and enjoyable components, learners can learn. Furthermore, Alm (2015, p 3) contended that Facebook serves as an example of informal learning on multiple levels: (1) in an informal context; (2) conversational and informal language is commonly employed on Facebook; and (3) most users have picked up Facebook usage skills via their use of the platform. Besides, Bett and Makewa (2020, p 132)

concluded that *Facebook* groups are abundant opportunities for ongoing professional development. Inpeng and Nomnian (2022, p 292) argue for the usefulness of *Facebook* for preservice teachers' professional development and lifelong learning. Thus, *Facebook* can be beneficial for teacher development at different levels.

Some studies dealt with interactions within teachers' communities on *Facebook* as a formal or informal CPD. For example, Scurr's study (2017, p. v.) examined the learning experiences of fifteen teachers within an online community of practice on Facebook, focusing on how they cooperatively co-constructed new knowledge to influence their teaching practices. The findings indicate that classroom management techniques and academic practices/development are the two areas where instructors collaborate most frequently. Similarly, Zakaria's (2021) study focused on a group of Indonesian English teacher educators in an informal online learning community. The study investigated the community interactions, the factors that attracted teacher educators to participate and the norms and values of the members. The findings revealed that - domain, community, and practice - displayed characteristics of a community of practice. The study also revealed some essential factors that helped members survive collaboratively to pursue their professional development goals.

Some other studies used well-known taxonomies to analyze teachers' pedagogical uses of online teachers' communities on Facebook. Bett and Makewa (2020, p 132) analyzed English teachers' Facebook posts using Shulman's taxonomy. The data showed that the interaction centred on teaching literature and English as well as a few other educational topics. Similarly, Liljekvist et al. (2021, p 723) examined teachers' involvement in six self-organized *Facebook* groups related to teaching mathematics or Swedish language was examined using Shulman's knowledge-based framework and systematic functional grammar. The authors found that pedagogical knowledge predominated and that "questions" and "offers" were the most often occurring categories. According to the authors' findings, instructors utilised these kinds of groups to create professional learning communities as a means of negotiating pedagogical content knowledge. Consequently, CPD seems to contribute significantly to improving teachers' professional practices.

Most recently, many studies centred on Vietnamese EFL teachers. Patahuddin et al. (2022, p 1) found that *Facebook* professional groups produced

good chances for both male and female teachers' professional development to be enhanced. Le et al. (2022 p 546) explored the ways Vietnamese teachers use social networking sites (SNS) for informal professional development and their views, interviewing 19 EFL instructors. They found four categories of SNS activities related to professional learning: resource searching, learning, sharing; academic support; enhancing English language skills, and networking and socializing.

In a similar context, Inpeng and Nomnian's study (2022, 292) on 20 Vietnamese EFL pre-service teachers found positive opinions about using *Facebook* for autonomous English learning especially during the COVID-19 epidemic. The study identified five aspects of autonomy: orientation, seminars, in-depth study, enrichment, and individual development, highlighting the benefits of Facebook for English learning. Ngo and Nguyen (2023, p 531) also examined Vietnamese EFL teachers' use of Facebook for professional development (PD) found that the 'Teach and Tech' Facebook group, with over 120,000 members, has been instrumental in fostering PD through online communities. The group serves as a therapeutic space for exchanging ideas, sharing knowledge, seeking help, offering solutions, and showcasing technological expertise, attracting highly motivated participants.

Regarding the Egyptian context, there has recently been a formal trend led by the Egyptian Ministry of Education to drastically change the educational system to reflect modern learning methods and techniques, such as open education and accessible learning. Nevertheless, a drastic parallel shift in teachers' means of learning, training and professional development has yet to be made. Moreover, although social networks, especially Facebook, have become a common practice among educational communities in Egypt, no studies with the researchers' best knowledge have attempted to explore the online practices of in-service (language) teachers as part of CPD. Local academic research has been directed towards more formal learning and institutional professional development and less towards informal learning and CPD. Therefore, this study took the CPD issue further by investigating these specific online language learning practices performed by English language teachers.

RESEARCH QUESTIONS

1. What are the Egyptian in-service EFL teachers perceived uses of *Facebook* groups?

2. What are the informal online language learning practices conducted by Egyptian in-service English language teachers on *Facebook* online communities as part of their continuous professional development (CPD)?
3. What is the difference between the informal online language learning practices of primary, preparatory and secondary schools' English language teachers on *Facebook* online communities?

METHODOLOGY

This study employed a mixed-methods design where qualitative (through content analysis of teachers' posts on *Facebook* informal groups) and quantitative (through questionnaires) data were collected. It comprises two phases. The first used an analytical approach (content analysis) to analyze data collected from posts on different Egyptian EFL teachers' *Facebook* groups. A questionnaire was designed based on this analysis and previous literature.

This study adheres to the ethical rights of the study participants, as it noted at the beginning of the survey that their responses would be used for research purposes only. Besides, writing their emails if they would like to be contacted after the survey was optional.

RESEARCH INSTRUMENTS

This study used two main instruments to answer the research questions: content analysis of Facebook posts and a questionnaire, illustrated as follows.

Questionnaire of EFL teachers' perceived use of Facebook groups as CPD

The questionnaire includes three sections: the first covers background data about the participants (gender, age, teaching experience, teaching stage, and their role in *Facebook* groups). The second section is divided into three domains that assess teachers' activity and perceived use of *Facebook*. It has a 22-item 5-point Likert scale with scores ranging from 22 (the minimum score) to 110 (the highest score). All items were typically coded from 5 (usually) to 1 (rarely) for the first five items and 5 (very useful) to 1 (rarely useful at all) for other items (CF. Appendix A).

The three domains in section two are as follows:

- a) **Activity in Facebook groups (AFK)**: This domain has five items (initiate a post, read other members' posts, like a post, write a simple comment and comment sharing one's own experience).

- b) **Pedagogical knowledge (PK)**: This domain includes nine items that cover student motivation, new teaching methods, lesson planning, testing and assessment.
- c) **Content Knowledge (CK)**: This domain included eight items that address the usefulness of using *Facebook* groups in language skills and sub-skills (grammar, vocabulary, pronunciation, intonation patterns, writing, reading comprehension, speaking, and listening).

The third section of the questionnaire includes open-ended questions that probe teachers' views and opinions about using *Facebook* as a CPD.

The CPD questionnaire was submitted to a jury to check its face validity. The jury was Egyptian 5 EFL professors belonging to different universities. Slight modifications were made based on their suggestions. Further, the questionnaire was piloted to 30 teachers to calculate its validity and reliability. The correlation coefficients between each domain sum and the questionnaire's sum scores were calculated to validate. As **Table 1** shows, the third part of the questionnaire has the highest value (0.96), followed by the second part (0.91) and finally, the first part (0.89). Thus, the three domains have a high and significant correlation at the 0.01 level. These significant values indicate the questionnaire's internal consistency, which implies its validity. Further, **Table 1** shows that the calculated alpha scores are high for the three parts, respectively (0.87, 0.95, 0.96). Finally, the reliability for all 22 items was also relatively high, as indicated by Cronbach's alpha (0.97).

Table 1 The reliability and internal consistency of the CPD questionnaire

| The domains of the questionnaire | Number of items | Alpha | Pearson Correlation with the total score |
|----------------------------------|-----------------|-------|--|
| 1-AFK | 5 | 0.87 | 0.89** |
| 2-PK | 9 | 0.91 | 0.95** |
| 3-CK | 8 | 0.96 | 0.96** |

Correlation is significant at the 0.01 level (2-tailed). **

Qualitative Data Collection

In December 2019 through July 2021, two stages of data collection were undertaken: surveying different Egyptian EFL teachers' groups and the screening process of group selection. The following criteria mentioned in Kelly and Antonio (2016, p 142) were adapted to select the study groups.

- Lifespan: a minimum of two years of use.
- Group size: Group Over 8,000 members.
- Informality: teachers should create and lead their own groups; they shouldn't be affiliated with any organisations.
- Visibility: The group is easily located. The administrator's details are accessible.

Following a preliminary screening of nine *Facebook* groups, four were excluded as they were less than 2,000 (see Table 2 for the final list in descending order according to group members at the onset of the data collection process). The six groups targeting Egyptian EFL teachers were selected. Group abbreviations were used to ensure the privacy of the group's participants. Besides, letters were used to refer to participants (T is used for the participant who initiates a post, whereas R is used to refer to respondents). After getting informal consent from the groups' admins, the second researcher collected and annotated data according to emerging sub-themes. Posts that received no reactions from other group members were initially excluded.

Table 2. The final list of selected Facebook groups

| No | Group | Members | Created | Admins |
|----|-------|--------------------|--------------|---------------------------|
| 1 | ETE | 443, 680 - 516,937 | 16 Sep. 2013 | 10 admins /13 moderators |
| 2 | TEW | 176747 - 235,511 | 27 Jan. 2014 | 14 admins / 13 moderators |
| 3 | ELTAQ | 37,016 - 71,233 | 25 Dec. 2014 | 3 admins/ 9 moderators |
| 4 | ELT | 27,275 - 77,249 | 17 Sep. 2013 | 5 admins / 1 moderator |
| 5 | ELI | 10145 - 12150 | 20 Feb. 2011 | 1 admin/ 2 moderators |
| 6 | GET | 8295 - 18,836 | 14 Jun. 2019 | 18 admins |

Analytical Framework and Content Analysis of Posts

This study utilized two frameworks for data analysis. The first is Shulman's (1987, p 8) used to analyse and categorise knowledge shared by teachers within their community of practice (Wenger, 1998). However, Shulman generally classifies global teachers' professional knowledge.

Shulman's categories include:

- Content knowledge,
- General pedagogical knowledge,
- Curriculum knowledge,
- Pedagogical content knowledge,
- Knowledge of learners and their characteristics,
- Knowledge of educational contexts and
- Knowledge of educational ends, purposes, values, and philosophical and historical grounds

The second framework (Dadvand and Behzadpoor 2020, p 111-113) is more specific and it was particularly utilised to categorize subcomponents of content knowledge related to English teaching. Knowledge of subject matter include language skills, components and dialect/accents varieties in English: English (grammar, morphology, vocabulary, pronunciation, intonation patterns, writing and speaking), reading strategies, listening comprehension strategies, students' first language, first and second language similarities/differences.

PROCEDURES

This study was conducted from December 2019 to December 2021. First, data were collected from *Facebook* groups. Next, after an initial content analysis of selected CPD posts, an online questionnaire was designed and refined in May 2021. An online questionnaire link was created via a *Google Form*. After sharing it with the EFL jury to check its validity, an invitation link was sent to different *Facebook* communities and *WhatsApp* groups of the Egyptian EFL teachers. The response rate was slow, and the researchers sent the questionnaire many times until December 2021. The final list of participants was 180 teachers.

Data analysis

This section elucidates the qualitative analysis of the *Facebook* posts and presents the main themes or categories extracted from the data.

The following is an illustrated account of the main themes. Due to the space limit, participants' example posts/comments are organized in Appendix (B).

Theme 1: General Pedagogical Knowledge

This category includes general knowledge about teaching, such as exams and test specifications. For example, a teacher asks about factorizing an exam mark (see Post 1).

Theme 2. Content Knowledge

Teachers shared posts about L2 content knowledge in this category, e.g., phonetics, pronunciation and vocabulary. For example (Post 2), an active member posts a sentence transcription, and other members write down the corresponding words. A participant shares a pronunciation video in another post (no. 3). Teachers also play vocabulary games where a teacher writes a series of words, each of which begins with the last letter of the previous one. Such posts are very interactive as they receive many responses from members (See post 4, which collected 236 comments).

Theme 3. Pedagogical content knowledge

Sharing teaching experience/methods of phonics instruction

Some teachers shared posts reflecting on other teachers' posts on teaching English to young learners. One teacher was keen to share her experience (See post 6). She articulates her professional knowledge about phonic teaching and the kind of topic to introduce to learners. Besides, she also recommended specific books. This post is highly engaging as it triggers other members to comment seeking more teaching tips and the teacher continues to offer a more practical experience in a comment. One teacher replied, reflecting on her teaching strategy, whereas another teacher asked for more tips for teaching-specific items mentioned in the "teaching tricky words" post.

Theme 4: Knowledge of learners

Teaching writing to young learners

Some teachers seek help by asking about teaching-specific content knowledge. For example, in post six, one teacher asked for ways to teach writing to beginners, and

the respondent's reply displays knowledge of sequencing learning to match the learners' young age, knowledge of L2 extrinsic motivation by praising learners' trials, building confidence and scaffolding learners to build their writing ability.

Designing and adapting materials suitable for differentiated learning

Some teachers also reflect on designing and adapting materials for L2 learners' different levels and ages. In post 7, a teacher urges other members not to use ready-made materials and design their own to learners' different characteristics '*and we know that there are individual differences among students.*' Interestingly, other teachers' responses also reflect their knowledge of differentiated instruction: R2: '*How to teach a multi-level class*' and R3: '*.... material that is suitable for my children's age and ability.*'

Theme 5. Knowledge of Educational context (KEC)

Many teachers shared or asked about sheets, exam samples, final revision tests, national course material, especially when introducing a new curriculum, and questions samples/bank for a specific group like primary four syllabi. On a professional level, some teachers seek help with standard-based teaching materials. For example, one teacher asked for a phonics curriculum in post-8, and another provided instant help. Interestingly, this opens the discussion by asking about the pedagogical content knowledge aspect of using this resource. This post shows the teachers' knowledge of the educational context and the available teaching materials.

Materials sharing also included posting self-recorded videos such as pronunciation (with English words, pictured, translated). Some other teachers shared excerpts from their classrooms or their *YouTube* channels. In particular, it was noticeable that since COVID-19, many self-recorded videos have increased, and many members - not just the admins - are active in sharing materials.

Theme 6. Knowledge of 'professional' self (KPS)

In some posts, teachers share or ask about resources for developing their IT and language skills, announcing webinars or conferences, or suggesting accredited

websites such as Cambridge. For example, in post 9, a teacher shares IELTS training material. Many members liked the post.

Theme 7. Miscellaneous topics

The topics in this theme are unrelated to the categorization framework used in this study, such as job advertisements and social activities, including feast wishes or condolences. For example, post 10 is about a job vacancy announcement.

Results

QR1: What are the Egyptian in-service EFL teachers perceived uses of *Facebook* groups for professional purposes?

The answer to this question is quantitative, triangulated with the questionnaire's open-ended questions. As Figure 1 shows, most teachers (N = 152) reported using *Facebook* groups to share materials. The high percentage (84.4%) indicates their favorable attitude toward helping other teachers in *Facebook* groups. Likewise, this result is echoed in the qualitative part of the questionnaire. In other words, sharing materials is reflected in teachers' responses to the open-ended questions (e.g., T2: *I benefit from the material teachers share.*) This question has a numeric response that is derived by triangulation of the questionnaire's open-ended questions.

Figure 1 Perceptions of teachers' perceived use of *Facebook* groups for professional purposes



The second-ranked professional purpose, as shown in **Figure 1**, is watching other colleagues' self-recorded videos (62.2 %). Teachers revealed their interest in watching other teachers' language or teaching videos (e.g., T50: I can download tons of resources and join courses and webinars .attend live videos or recorded ones'). This comment by T50 confirms the posts' analysis findings that such videos have increased after COVID-19. Finally, the least professional use of FB groups is sharing videos of designed materials (N = 44, 24.4%). This low percentage might be due to only a few teachers designing their material. Another explanation might be supported by demographic-reported data that revealed about 66.6% were group members while about 15.6% were active members (C.F. Table 5).

Explanation of Teachers' Perceived Professional Uses of Facebook in Open-ended Responses

Sharing materials is also noticeable in teachers' responses to the open-ended questions. The following are some representative extracts:

T2: I benefit from the material teachers **share**.

T 96: Really, it is fruitful and exciting to provide new ideas for teaching and more **experiences** of English teaching and teachers.

Another teacher reported sharing as one benefit of using *Facebook* groups:

T 19: I get notified of the latest news concerning education and **share experiences** with other teachers.

Interestingly, one teacher valued the benefits of sharing during the COVID pandemic:

T 120: Especially during COVID-19, we as teachers **exchange knowledge** and **experiences** online.

One central theme emerged in the open-ended responses: sharing and exchanging knowledge and getting experience. Here are some extracts (the keywords experience and knowledge are highlighted to display their recurrence).

T 23: To improve myself, **exchange knowledge**, know what's new, and learn from others.

T136: **Exchange** resources and have **knowledge** about new curricula.

The experience theme is reflected in many responses, such as

T26: Really, joining *Facebook* groups develops me greatly as a teacher of English; day by day, I get **experience, knowledge**, different ways of teaching English to diverse learners (students and pupils), how to choose and select the best method or strategy that suits the lesson plan and individual differences among learners.

T70: As I said before, I'm benefiting from others' **experiences** and improving my **teaching knowledge** with their materials or even their advice and points of view.

T 45: For developing my teaching strategies and benefiting from another teacher's experience

T18: Get more **experience** in ways of teaching....modern technology usage in teaching....being familiar with helpful teaching aids

T11: A teacher might say a problem, or a situation faced him and how he solved it and this gives me an **experience** for sure.

T32: Refresh some **knowledge** and get new **experiences** from **experienced** teachers.

T 37: I benefited a lot from groups in enriching my **English knowledge and** how I can treat my students with modern methods.

QR2: What are the informal online language learning practices conducted by Egyptian in-service English language teachers on *Facebook* online communities as part of their continuous professional development (CPD)?

Content analysis of teacher posts in the six selected *Facebook* ELT groups has resulted in six themes or categories, mapped to Shulman's (1987) general categorization and the specific categorization for ELT by Dadvand and Behzadpoor (2020). Besides, one more theme is added, 'Miscellaneous topics,' which includes social and commercial issues that are not directly related to teaching. The results are summarised in **Table 3**.

Table 3. Main themes of *Facebook* CPD posts

| Theme | Sub-themes / Examples |
|---|---|
| General Pedagogical knowledge (PK) | Test/exam, grading, classroom management |
| Content Knowledge (CK) | <p>Sharing language-based materials from other sites:</p> <ul style="list-style-type: none"> - Vocabulary meaning with pictures and translation, homophones, tongue twisters, funny jokes: visual storyteller, songs, Idiom explanations with examples -Grammatical items explanation, grammar quizzes. - Phonetics: language posters of sounds <p>Language apps for developing listening, e.g., Ted podcasts, Google podcasts</p> |
| L2 Pedagogical Content Knowledge (L2 PCK) | Teaching techniques (phonology, writing, grammar), Designing teaching materials |
| Knowledge of L2 Learners | <ul style="list-style-type: none"> -Designing/adapting materials to suit L2 learners. - Sharing teaching techniques and tips for scaffolding |
| Knowledge of Educational context (KEC) | <ul style="list-style-type: none"> - Exams and test specifications -New curricula (Connect four and discovery syllabus) - Available teaching resources, related materials, and - self-recorded videos. - classroom teaching videos, YouTube channels |
| Knowledge of the (professional) self (KPS) | Seeking courses for developing language or professionally as CELTA, sharing webinars, conferences |
| Miscellaneous topics | Job advertisement, religious and social activities, including national feast wishes or condolences. |

QR3: What is the difference between the informal online language learning practices of primary, preparatory and secondary schools' English language teachers on *Facebook* online communities?

A one-way analysis of variance (ANOVA, SPSS.23) was a good fit to analyze the data obtained because the focus of the second research question investigating the difference between the three teacher groups. **Table 4** displays the participants' demographic data, whereas **Table 5** shows the questionnaire's descriptive data.

Table 4. Demographic data of the research participants (N=180)

| Aspect | | Value Label | N |
|-------------------------------|---|--------------------|----------|
| Teaching Stage | 1 | Primary | 59 |
| | 2 | Preparatory | 57 |
| | 3 | Secondary | 64 |
| Technological Literacy | 1 | Beginner | 8 |
| | 2 | Intermediate | 82 |
| | 3 | Advanced | 83 |
| | 4 | Expert | 7 |
| Role in FB groups | 1 | Group Admin | 31 |
| | 2 | Active Member | 28 |
| | 3 | Group Member | 121 |
| Gender | 1 | Male | 83 |
| | 2 | Female | 97 |

Table 5. Descriptive statistics of the participant's scores in the questionnaire

| Domains | Teaching Stage | N | Mean | Std. Deviation |
|----------------|-----------------------|----------|-------------|-----------------------|
| AFC | Primary | 59 | 14.56 | 4.332 |
| | Prep | 57 | 15.77 | 6.068 |
| | Secondary | 64 | 13.48 | 4.581 |
| | Total | 180 | 14.56 | 5.086 |
| PK | Primary | 59 | 29.46 | 6.004 |
| | Prep | 57 | 30.14 | 9.974 |
| | Secondary | 64 | 26.27 | 7.858 |
| | Total | 180 | 28.54 | 8.215 |
| CK | Primary | 59 | 27.39 | 7.214 |
| | Prep | 57 | 27.11 | 10.491 |
| | Secondary | 64 | 23.48 | 8.433 |
| | Total | 180 | 25.91 | 8.922 |
| Total | Primary | 59 | 71.41 | 15.837 |
| | Prep | 57 | 73.02 | 25.242 |
| | Secondary | 64 | 63.23 | 19.781 |
| | Total | 180 | 69.01 | 20.911 |

Differences among the research participants based on the teaching stage

Firstly, a one-way ANOVA was performed to compare the differences in *Facebook* use among the teachers (Table 4 shows three groups: primary, preparatory and secondary). The data were normally distributed, but equal variances were not assumed based on Levine's test ($F(4) = 11.134, p = 0.001$). Therefore, these Welch tests of equality of means were run (**Table 6**).

Table 6 ANOVA's Robust Tests of Equality of Means

| Domains | Test | Statistics | df1 | df2 | Sig. |
|----------------|-------------|-------------------|------------|------------|-------------|
| AFK | Welch | 2.757 | 2 | 114.246 | .068 |
| PK | Welch | 4.079 | 2 | 112.504 | .019 |
| CK | Welch | 4.232 | 2 | 114.359 | .017 |
| Total | Welch | 4.097 | 2 | 113.173 | .019 |

a. Asymptotically F distributed

As shown in **Table 6**, ANOVA's Welch test ($F(180) = 113.173, p = 0.019$) indicated significant differences in the means of the sum scores. As for the AFK domain, ANOVA's Welch test ($F(180) = 114.14, p = 0.068$) indicated insignificant differences in the means of the AFK domain among the three groups. However, ANOVA's Welch test ($F(180) = 112.50, p = 0.019$) indicated significant differences in the PK means between the three sub-groups. Similarly, ANOVA's Welch test ($F(180) = 100.37, p = 0.019$) and Brown-Forsythe test ($F(180) = 114.36, p = .017$) indicated significant differences in the means of the CK domain between the three sub-groups.

Further, post-hoc comparisons using the Games-Howell test were run to determine where those differences exist. The test indicated a significant mean difference (11.640*) between the mean of the sum scores of secondary teachers ($M = 63.71, SD = 19.793$) and primary teachers ($M = 75.35, SD = 27.018$) at $p = 0.38$. As for the AFK domain, there were no differences among the three groups in the sum of the domain. However, only one item, 'comment with simple words,' showed a significant mean difference (0.617*) between prep and secondary teachers at $p = 0.027$. In the PK domain, there was a significant difference (4.32) between the mean scores of the PK sum between primary ($M = 30.73, SD = 10.49$) and secondary teachers ($M = 26.41, SD = 7.86$) at $p = .034$. Another significant mean difference (4.127*) in CK scores was between primary teachers ($M = 27.83, SD = 7.82$) and secondary teachers ($M = 23.71, SD = 8.91$) at $p = .028$.

Differences between the three groups within PK domain items

Five items in the PK domain showed significant differences among the three teacher groups. As for 'student motivation, there was a significant mean difference

(-.730^{*}) between preparatory and primary teachers at $p = 0.002$. The second item was 'new teaching methods, which indicated a significant mean difference (.789^{*}) between primary and secondary teachers at $p = 0.001$. The third item was 'lesson planning, which showed a significant mean difference (-.637^{*}) between primary and secondary teachers at $p = .001$. Fourthly, 'teaching resources' showed a significant mean difference (0.591^{*}) between primary and secondary teachers at $p = 0.021$ and a significant mean difference (0.60^{*}) between preparatory and secondary teachers at $p = .035$. Finally, 'conferences and webinars' also showed a significant mean difference (0.668^{*}) between preparatory and secondary teachers at $p = 0.011$.

Differences among the three groups within the CK domain items

In the CK domain, five items showed a significant difference among the three groups of teachers. As for vocabulary, there was a significant mean difference (0.581^{*}) between primary and secondary teachers at $p = 0.017$. Regarding pronunciation, there was another significant mean difference (0.784^{*}) between primary and secondary teachers at $p = 0.001$. As for reading comprehension, there was a significant mean difference (0.728^{*}) between preparatory and secondary teachers at $p = 0.005$. Fourthly, speaking showed a significant mean difference (0.501^{*}) between primary and secondary teachers at $p = 0.032$ and a significant mean difference (0.78^{*}) between a preparatory and secondary teacher at $p = .004$. Finally, listening showed a significant mean difference (0.621^{*}) between primary and secondary teachers at $p = 0.022$ and a significant mean difference (0.627^{*}) between preparatory and secondary teachers at $p = 0.04$.

Findings Summary

The qualitative analysis results demonstrated that CPD informal groups, as maintained by Egyptian EFL teachers, seem to display and reflect different aspects of professional knowledge. The results show that the analyzed posts concerned with professional knowledge are related to some general categories in Shulman's taxonomy, such as General Pedagogical knowledge (PK) and knowledge of the educational context (KEC). However, some posts are related to subject-specific content knowledge of L2 pedagogy in Dadvand and Behzadpoor's (2020) framework, such as Content Knowledge (CK), L2 Pedagogical Content Knowledge (L2 PCK), Knowledge of L2 Learners, and Knowledge of (professional) self (KPS).

As for teachers who reported the perceived use of FB groups for professional purposes, quantitative data showed sharing materials as the highest use, followed by watching colleagues' self-recorded videos. Such a finding was triangulated and illustrated by teachers' open-ended responses, which resulted in one central theme: sharing and exchanging knowledge and experience. This finding is consistent with previous studies (Le et al., 2022; Ngo & Nguyen, 2023).

The quantitative questionnaire results showed differences among the participants who reported using FB groups: primary, preparatory and secondary teachers. Generally, there were differences among the three groups in the sum scores. ANOVA's Welch test indicated significant differences in the means of the sum domain scores and two sub-domains (PK and CK). The Games-Howell test revealed significant differences between primary and secondary teachers' mean scores in the PK domain. Another significant mean difference in CK sum scores was shown between primary and secondary teachers.

In the PK domain, five items showed significant differences among the three groups. Preparatory teachers perceived posts about student motivation as more useful/helpful than primary teachers. Besides, teaching methods, lesson planning, and teaching resources were more useful for primary teachers than for secondary teachers. Moreover, two more items showed significant differences between preparatory and secondary teachers: teaching resource conferences and webinars.

In the CK domain, five items showed significant differences among the three groups of teachers. The primary teachers thought vocabulary and pronunciation were more useful than secondary teachers. The preparatory teachers thought that reading comprehension was more useful than secondary teachers. However, another difference was in speaking and listening. Both primary and preparatory teachers thought speaking and listening were more useful than secondary teachers.

The interest of primary teachers in vocabulary and pronunciation seems to reflect the characteristics of the stage of young learners whom they teach. As primary students learn a new language, it seems logical that their teachers perceive that those sub-sub-skills are more useful for them than secondary teachers teaching teenagers who have some previous language input of the English language. Similarly, this also applies to primary and preparatory teachers' interest in listening and speaking, as these skills are vehicles for young learners to develop language communication skills.

DISCUSSION

The discussion section aims to provide a comprehensive analysis and interpretation of the research findings in response to the three research questions. These questions were formulated to explore 1) the perceived uses of Facebook groups by Egyptian in-service EFL teachers for their continuous professional development (CPD), 2) the informal online language learning practices conducted within these groups and 3) the differences observed among teachers at different educational stages.

As for the teachers' reported perceived use of Facebook groups for professional purposes, the results revealed that sharing materials and watching colleagues' self-recorded videos were the most prominent activities within these online communities. These findings are based on the experiences and perceptions of the participants, highlighting the collaborative and sharing nature of these groups. In the context of a Community of Practice (CoP), collaboration and the exchange of ideas and knowledge about language and pedagogy play a pivotal role in fostering meaningful professional development experiences (Kabilan et al., 2011). It is worth noting that experienced teachers play a significant role in providing valuable hands-on experiences, which can be particularly beneficial for novice or less-experienced teachers. These findings align with recent studies by Liljekvist et al. (2021), Patahuddin et al. (2022), and Zakaria (2021), reaffirming the importance of online communities in facilitating professional development.

Regarding the informal online language learning practices conducted within *Facebook* groups, the results revealed that most 'teachers' online practices revolved around sharing helpful information and resources, including videos, images, and documents. This sharing of online resources is integral to CPD, particularly when experienced educators share authentic and valuable materials with their less-experienced peers. Such activities reflect the collaborative nature of these communities, and most of the practices were driven by practical needs and challenges. This trend is in line with earlier research by Bett and Makewa (2020) and Patahuddin et al. (2022), emphasizing the significance of online Communities of Practice (CoP) in promoting informal language learning and knowledge exchange.

Concerning the differences in the informal online language learning practices among teachers at different educational stages, the findings indicate that while there are some variations, these differences are relatively minor. Online CPD practices on

Facebook exhibit remarkable consistency, irrespective of the educational stage. This finding is not surprising, as English language teachers in Egypt typically share common goals, orientations, attitudes, and challenges within their classrooms. The collaborative sharing of (audio or visual) materials that benefit pedagogical practices and professional development is a shared objective across all educational stages.

As for the broader implications of these findings, Facebook has become a significant platform for professional development in the field of English language teaching. The opportunities for CPD on Facebook are multifaceted, encompassing sharing experiences, disseminating knowledge (including pedagogical and content knowledge), and addressing real-world challenges, such as the impact of the COVID-19 pandemic. The pandemic outbreak led to an increase in the sharing of self-recorded videos and heightened activity among group members, not limited to administrators. The online contributions often led to extended discussions that enriched teachers' pedagogical content knowledge, providing valuable insights and practical ideas for both novice and experienced educators. These contributions also demonstrated a deep understanding of the educational context and the available teaching resources. This finding aligns with previous research conducted by Magidin de Kramer et al. (2012) and Brooks (2010). It is consistent with more recent studies, including those by Carpenter and Krutka (2015), Scurr (2017), and the work of Bett and Makewa (2020), Liljekvist et al. (2021), Mai et al. (2020), and Patahuddin et al. (2022). These studies collectively support the idea that social networks, such as Facebook, serve as robust platforms for online collaborative teacher communities, facilitating various CPD purposes and practices.

To sum up, the results reveal the pivotal role of Facebook groups in the CPD of Egyptian in-service English language teachers, emphasizing their collaborative and sharing nature. The informal online language learning practices conducted within these groups contribute significantly to pedagogical content knowledge and the overall professional development of teachers. The consistency of these practices across different educational stages highlights the relevance and effectiveness of Facebook as a platform for promoting continuous professional development in English language teaching.

CONCLUSION

CPD communities have recently shifted formal teacher learning from traditional courses, whether at pre-service or in-service stages - to a collaborative

and participatory learning activity that extends beyond the boundaries of a conventional classroom situation in the professional learning community. Thus, the collaborative CPD model can be evident in online practices on social networks, where knowledge sharing, meaning negotiation, skills development and peer assessment are the main components. This model is reflected in the findings of the present study, which reveal the importance of online collaboration, resource sharing, and knowledge exchange within online communities of practice.

Thus, the present study concludes that CPD *Facebook* groups provide several options and spaces for continuous learning and informal study. Therefore, online spaces and platforms like *Facebook* and other social networks are needed for CPD purposes. Based on in-service informal online English language teaching practices on *Facebook* (e.g., knowledge construction, sharing valuable resources, supporting each other while teaching, and exchanging experience), the researchers recommend employing *Facebook* and other platforms for formal CPD purposes. Schools in Egypt should be supported by local and global networks that link language teachers and practitioners. These recommended formal practices might include communities of practice and online learning communities supervised by the Ministry of Education. Hence, language teachers' assessments can be linked to their online CPD practices that indicate their progress as language teachers.

The present study was conducted on a limited scale and the participants may not represent all in-service EFL teachers all over Egypt. Consequently, future research in this area could cover a bigger sample size to explore the types of resources and materials most valued by teachers in these online communities and the long-term impact of participation in Facebook groups on teaching practices and student outcomes. Additionally, examining the role of moderators and administrators in guiding and facilitating CPD within these communities could provide valuable insights.

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