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Contribution of Social Media on the Professional Development of Secondary School Teachers in Ukerewe District, Tanzania

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Abstract

In the digital age, the use of social media has become more prevalent than ever before. In the education field, an increasing number of teachers are actively engaging in pedagogical discussions worldwide using online professional communities. Thus, these online professional communities, facilitated through social media platforms, offer a wide range of opportunities, including networking, learning, and contributing to professional development. This paper aims to reflect on the potentialities of social media in individual and collective professional development among secondary school teachers in the Ukerewe District in the Mwanza region. The specific objectives of this study were to ascertain the social media platforms of choice for professional development, analyse the range of activities that teachers participate in on social media platforms, and investigate the specific ways in which social media has contributed to professional development. A cross-sectional research design that mainly relied on quantitative research approaches was employed for the study. A simple random sampling technique was used to select a sample of 140 participants who were administered a self-report questionnaire. The findings of the study revealed that secondary school teachers actively use social media for professional development, with platforms such as WhatsApp, Facebook, and Twitter being popular choices. The study suggests two important recommendations. First, institutions should integrate social media-based professional development opportunities into existing professional development programs and plans. Second, institutions should encourage the formation of online professional learning communities on social media platforms to facilitate professional development.

Keywords: Social Media, Professional development, online professional communities.

1. Introduction

In an era characterized by rapid technological advancements, the ways we communicate with one another, access and share information, and process knowledge have been inextricably altered (Bernhardt, 2015; Donelan 2016, Van Bommel & Liljekvist, 2016). Among transformative forces, social media has emerged as a dynamic tool that is used by educators both in their personal and professional spheres (Hunter & Hall 2018). These waves of Technological and digital transformations are presenting new and crucial opportunities for teacher training and teachers' professional development (Manca & Ranieri, 2017; Ohara, 2023). Traditionally, teachers were engaged in professional development through conventional means like taking courses, reading books, and participating in local school colloquiums (Van Bommel & Liljekvist, 2016).

Due to the rapid growth of Apps and social media, teachers use different forums on the Internet, such as Twitter, Web sites, personal blogs, and Facebook, as resources to share and develop pedagogical subject-matter knowledge, to ask for and give pedagogical advice (Prestridge, 2019). It is through these new forms of professional development that online courses, web seminars, and other formal professional development are widely spread nationally as well as internationally. These platforms serve as hubs where educators seek and provide pedagogical advice, collaborate with peers, and engage in discussions related to their teaching practices. Using social media, teachers can also seek help from other group members regarding, for example, syllabuses, course materials, teaching methods, assessment strategies, curricula, and so forth (Suardika & Ino, 2018).

In recent years, researchers have developed an interest in the impact of social media on the professional development of teachers (McNamara, Healy & Haegele, 2021). The focus of this research is to investigate the contribution of Social Media to the Professional Development of Secondary School Teachers in the Ukerewe District of Tanzania. This study is driven by the overarching objective of shedding light on the intricate ways in which secondary school teachers within this unique geographic context engage with social media. Moreover, it seeks to reveal valuable insights into the evolving landscape of professional development within the educational sector, a transformation significantly influenced by the profound impact of social media in the digital era.

Background

Because of the high demand for quality and effective teachers in today's schools and institutions, teachers must regularly update their skills and knowledge (Jovanova-Mitkovska, 2010). In this context, professional development for educators becomes not only desirable but indispensable. Educational systems

worldwide prioritize the importance of teachers' professional development, a phenomenon not excluded in Tanzania (Ohara, 2023).

In 2020, the government of Tanzania through the Ministry of Education, Science and Technology (MoEST) published a National Framework for Teachers continuous professional Development (N-TCPD) to ensure that teachers are professionally empowered and supported within the effectively governed system (MoEST, 2020). N-TCPD acknowledges both formal and non-formal educational settings for the professional development of teachers. Formal TCPD involves attending school-based sessions, workshops, or professional meetings and mentoring in the respective schools, Wards, Clusters, Teacher Resource Centres and Teacher Training Colleges, Agency for the Development of Educational Management (ADEM). According to MoEST (2020), Non-formal experiences include reading professional publications and learning from websites related to any academic discipline including online and electronic self-led learning.

Traditional modes of professional development include workshops, conferences, seminars, and in-service training programs (MoEST, 2020; Van Bommel & Liljekvist, 2016). However, these conventional methods often present logistical challenges, including geographic limitations and resource constraints, particularly in remote or underserved regions (Nelimarkka *et al.*, 2021). It is within this context that the influence of social media in shaping contemporary professional development practices gains prominence.

Despite the recognition of non-formal professional development experiences, such as reading professional publications and self-led online learning across academic disciplines, empirical studies in this area have been notably scarce. Previous research efforts, exemplified by studies like Komba and Mwakabenga (2019), Namamba and Rao (2017), and Kafyulilo (2013), have predominantly focused on conventional modes of professional development. This limited focus has left a gap in our understanding of the role of non-traditional methods in educators' growth and development. In light of these considerations, it becomes imperative to explore how teachers harness the power of social media for their professional advancement and the valuable contributions it makes to their teaching practices. Therefore, this study aimed to investigate the contribution of social media to the Professional Development of Secondary School Teachers in Ukerewe District, Tanzania. Specifically, this investigation was guided by the following specific objectives:

i. To identify the preferred social media platforms utilized by secondary school teachers for professional development.

ii. To analyse the range of activities in which secondary school teachers participate on social media platforms as part of their professional development efforts.

iii. To investigate the specific ways in which social media have contributed to the professional development of secondary school teachers

2. Methodology

2.1 Research Design

This quantitative study employed a cross-sectional survey research design to collect data from a diverse sample of secondary school teachers in Ukerewe District, Tanzania, at a single point in time. It enabled the assessment of their preferences, activities, and perceptions related to social media use for professional development.

2.2 Targeted population

In this study, the target population included all 563 teachers from 33 secondary schools of which 29 are public and 4 others are private schools in Ukerewe District. Secondary school teachers were selected because they are the primary focus of this study. They were expected to provide useful information concerning the use of social media in their professional development pursuits.

2.3 Sample Size and Sampling Techniques

To ensure a representative sample, a simple random sampling technique was employed in this study. Ten schools and a total of 140 secondary school teachers were selected for participation. The estimated sample size was determined using the Yamane formula (1967), chosen for its accuracy in population generalization. The Yamane formula calculates the sample size based on the level of precision. Confidence level, and variability of attributes which is the distribution of attributes in the population. Level of precision (e) refers to the desired margin of error in estimating population characteristics. The range of level of precision is ±3%, ±5%, ±7% and ±10%. For our specific research, we opted for a precision level of ±7%. This choice indicates that we are willing to tolerate a margin of error of up to 7% in our estimates, striking a balance between accuracy and practicality for the research objectives. The Yamane formula is as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Whereby

N= Number of the target population (563 teachers)

n= Number of sample size

e= level of precision error (7% or 0.07)
1= Given constant

2.4 Data Collection Instruments

A structured questionnaire was designed to collect quantitative data. The questionnaire included items asking teachers to indicate the social media platforms they use for professional development, specific activities teachers engage in on social media for professional development, and specific ways through which social media contributes to their professional development.

To gather quantitative data for this study, a structured questionnaire was developed. The questionnaire was carefully designed to capture key information related to social media usage and its impact on the professional development of secondary school teachers. It consisted of specific items aimed at obtaining valuable insights. The questionnaire included the following components:

- **Social Media Platform Usage;** In this section, teachers were asked to indicate which social media platforms they use for professional development. This allowed researchers to understand the platforms of choice among educators.
- **Activities on Social Media;** A separate section focused on the specific activities that teachers engage in on social media for their professional development. This provided insights into the range of activities facilitated by social media.
- **Impact on Professional Development;** Another section inquired about the specific ways in which teachers perceive social media as contributing to their professional development. This allowed researchers to uncover the perceived benefits and contributions of social media in the context of professional growth.

2.5 Data Analysis

The responses gathered from the participants were subjected to rigorous analysis using the Statistical Package for the Social Sciences (SPSS) software, version 20.0.

2.6 Informed Consent and Ethical Considerations

It is important to note that participation in this study was entirely voluntary, and participants had the right to withdraw their consent at any point, for any reason, without facing any obligations or consequences. At the outset of the research,

both the researchers and participants engaged in the informed consent process. During this process, participants received detailed information regarding the purpose, goals, and objectives of the study. They were explicitly instructed to provide their responses with clarity and honesty.

3. Results and Discussions
3.1 Demographic Characteristics (Based on Gender)
Among the respondents, there were 87 (62.1%) male teachers and 53 (37.9%) female teachers. This distribution highlights the gender representation within the study sample, indicating that both male and female secondary school teachers were actively engaged in the research.

3.2 Social Media Platforms for Professional Development among Secondary School Teachers
The first objective of this study was to determine the preferred social media platforms used by secondary school teachers for their professional development. To achieve this objective, respondents were asked to indicate which platforms they used for this purpose, and the results were as follows:

Table 1: Social Media Platforms Used for Professional Development Purposes

Socio media Platform	Frequency	Percent
Facebook	16	11.4
Twitter	7	5.0
Instagram	24	17.1
WhatsApp	81	57.9
YouTube	12	8.6
Total	**140**	**100.0**

The findings of the study revealed that WhatsApp was the most preferred social media platform among secondary school teachers for their professional development, with 57.9% of the respondents using it. This high preference for WhatsApp could be attributed to its convenience, group chat features, and the ability to share resources and collaborate with peers. Instagram also emerged as another favoured platform, with 17.1% of teachers using it. Instagram's visual nature makes it a suitable platform for sharing teaching ideas, and educational resources and engaging with educational content. Facebook and YouTube were chosen by 11.4% and 8.6% of teachers, respectively. These platforms offer a wide range of educational groups and channels, making them valuable resources for teachers seeking professional development opportunities. Twitter, with a

preference of 5.0%, was less commonly used for professional development among the surveyed teachers. While Twitter provides a platform for quick information sharing and networking, it may not be as conducive to in-depth discussions and resource sharing as other platforms.

The results of this study indicate that secondary school teachers are utilizing a variety of social media platforms for their professional development. WhatsApp, Instagram, Facebook, and YouTube are popular choices, each offering unique features that cater to the diverse needs of educators. These findings are supported by Golobardes and González (2018) who observed that teachers are active users of several social networking sites such as Twitter and Facebook for professional development and social relations. Similarly, Van Bommel and Liljekvist (2016) concur that social media and social network sites have changed how people interact and work together, and, teachers initiate and manage their professional development on the Internet.

The high usage of WhatsApp could be attributed to its real-time communication capabilities, allowing teachers to easily connect with colleagues and exchange ideas. Instagram's visual nature may appeal to teachers looking for creative inspiration and engaging content. Facebook and YouTube provide access to an extensive array of educational groups, channels, and resources, making them valuable platforms for professional development.

The lower usage of Twitter may suggest that it is less commonly used by secondary school teachers in this context. However, it should be noted that the preferences for social media platforms may vary among educators based on their individual needs and preferences. Although the use of social media is based on individual preferences, according to Donelan's (2016) findings, teachers use social media platforms to interact, and engage with different Communities, creating networking opportunities, and contributing to career progression.

3.3 Activities that secondary school teachers participate in on social media platforms as part of their professional development efforts

The survey focused on various activities that teachers undertake on social media platforms for their professional growth. The following findings emerged:

Table 2: Activities Engaged in on Social Media by Teachers

Activities	Responses	
	Number of responses	Per cent
Sharing educational resources	110	32.4%

Collaborating with other teachers	90	26.5%
Communicating with students or parents	43	12.7%
Participating in online teacher communities or forums	58	17.1%
Promoting school events or achievements	38	11.2%
Total	**339**	**100.0%**

The study revealed that secondary school teachers actively engage in a diverse range of activities on social media platforms to enhance their professional development. The most common activity reported was that of sharing educational resources constituting 32.4% of all responses. Additionally, engaging in collaborative activities accounted for 26.5% of responses. Communicating with parents or students constituted 12.7% of the responses. 17.1% of the responses indicated participating in online teacher communities or forums. Lastly, using social media to promote school events or achievements constituted 11.2% of the responses.

These findings highlight the importance of social media platforms in supporting professional development among secondary school teachers. Educators leverage these platforms for knowledge sharing, collaboration, support-seeking, and school community engagement. Notably, the adoption of these activities varies among teachers, reflecting individual preferences and needs in using social media for professional growth. According to Prestridge (2019), some teachers might be doing things differently, however, many of the teachers attest to have engaged in social media to find educational resources and gain new ideas from those they consider like-minded or experts in their field. On top of that, when social media and social network sites are in common use, there is no longer a distinct border between teachers' interaction with their colleagues in their school (Van Bommel & Liljekvist, 2016; Bruguera, Guitert & Romeu, 2019).

3.4 Specific ways in which social media contribute to the professional development of teachers

To understand the precise contributions of social media to the professional development of secondary school teachers, respondents' answers were categorized into five distinct dimensions of professional growth. Each dimension provides insight into the degree to which teachers regard social media as a valuable resource. Respondents were given the option to choose multiple aspects

of professional development, leading to a comprehensive analysis. The results are presented as follows:

Table 3: Ways Social Media Contributes to Teacher Professional Development

	Responses	
	N	**Per cent**
Access to Educational materials	119	27.9%
Provided access to lesson plans, and teaching resources	77	18.1%
Supported skill development through online courses	80	18.8%
Provided ideas and strategies for student support	72	16.9%
This exposed me to diverse teaching methods	78	18.3%
Total	**426**	**100.0%**

The findings of the study reveal several specific ways in which teachers perceive social media as contributing to their professional development. The most commonly reported way social media contributes to professional development was that of access to educational materials, constituting 27.9% of all responses. This indicates that educators rely on social media platforms to access a diverse range of resources such as articles, videos, and educational tools. By accessing these materials, teachers can stay updated with the latest trends and innovations in education, enriching their teaching practices and enhancing the quality of instruction they provide to students.

Additionally, the use of social media to access lesson plans and teaching resources constituted 18.1% of the total responses. Moreover, the use of social media to support skill development through online courses constitutes 18.8% of the total responses. By participating in online courses, teachers can enhance their teaching skills, acquire new knowledge, and stay abreast of emerging pedagogical trends, ultimately improving their effectiveness in the classroom.

The use of social media to get ideas and strategies for student support constitutes 16.9% of the total responses. This highlights the collaborative nature of social media platforms, where educators share innovative teaching methods, classroom management techniques, and strategies for addressing student challenges. The use of social media exposes teachers to diverse teaching methods, representing 18.3% of the total responses. The findings underscore the pivotal role of social media in supporting educators' professional development by providing access to educational materials, lesson plans, and teaching resources, facilitating skill development through online courses,

fostering collaboration for student support, and exposing teachers to diverse teaching methods.

This contention is supported by Bruguera, Guitert, and Romeu (2019) that social media can be a useful communication platform and serve as open and rich digital spaces for professionals to exchange information, opinions, and ideas. In supporting the discussion, Ohara (2023) concludes that social media plays a significant role in education by facilitating information sharing, collaboration, active participation, and professional development, thus, social media has changed the way we interact and learn in this digital age.

4. Conclusion and Recommendations
The research findings presented in this study shed light on the influential role of social media in shaping the professional development landscape of secondary school teachers in Ukerewe District, Tanzania. The study successfully achieved its specific objectives, providing valuable insights into the preferences, activities, and perceived contributions of social media to teachers' professional growth. The findings showed that WhatsApp, Facebook, Instagram, and YouTube played notable roles, each serving as valuable resources for a percentage of teachers. This diverse platform usage highlights the adaptability and versatility of social media in accommodating educators' diverse needs and preferences. The study further revealed that social media contributes significantly to the professional development of secondary school teachers in Ukerewe District, Tanzania.

Based on the above findings, the study recommends the following:
i. Institutions should integrate social media-based professional development opportunities into existing professional development programs and plans,
ii. Institutions should encourage the formation of online professional learning communities on social media platforms to facilitate professional development,
iii. Educational authorities and institutions should promote awareness of the benefits of social media for professional development, and
iv. Provide training to teachers on how to utilize these platforms effectively and responsibly.

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