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Incorporating Twitter in the Clinical Supervision Process: Perceptions of Secondary School Level Supervisors

Paula Abiola Willis
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Walden University

College of Education

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Paula Willis

has been found to be complete and satisfactory in all respects,
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the review committee have been made.

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Walden University

2020

Abstract

Incorporating Twitter in the Clinical Supervision Process: Perceptions of Secondary

School Level Supervisors

by

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MA, University of Guyana, 2010

BS, University of Guyana, 2001

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Program: PhD. in Education

Specialization: Learning, Instruction & Innovation

Walden University

May 2020

Abstract

Collaborative supervision and social media in education have been the focus of many studies, yet research on incorporating Twitter into clinical supervision is limited.

Secondary school level supervisors need to learn and understand educational opportunities when using collaborative supervision incorporating online support. This

study explored the perceptions of secondary school level supervisors on using Twitter to collaborate with teachers in the clinical supervision process. Siemen's theory of

connectivism and Cogan's clinical supervision model framed the study. The research questions explored the perceptions of secondary school level supervisors regarding the

use of Twitter for collaborating with teachers during the clinical supervision process,

their perceived influences of clinical supervision incorporating Twitter and professional development of teachers at secondary schools, how they perceived the connection

between clinical supervision incorporating Twitter and student achievement in the

classroom, and how their perceptions of using Twitter in clinical supervision influenced their likelihood of using it professionally. A basic qualitative design was employed with

in-depth interviews of 10 level supervisors chosen purposefully from public secondary schools in Guyana. Data were analyzed using inductive coding to identify patterns and

themes. Findings indicated that despite challenges, opportunities for teachers to be

engaging and relevant were present with the blended approach to instructional

supervision. The results of this study can be used to help education officials understand

the value of collaborative supervision incorporating social media. Educational leaders can use this knowledge to inform policy and practice.

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Dedication

This work is dedicated to my mom and dad, Sheila Mary (deceased 2017) and Stanislaus Hilary Willis. Throughout my life you implanted the importance of education. Thank you for helping me to be a better daughter, mother, educator, and a better person. Mommy, this is for you!

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Chapter 1: Introduction to the Study

In an existing globalized society, the demand for improvement in the delivery of education and student performance may necessitate change in the preparation of teachers in the Guyana education system. The emergence of consultative and collaborative forms of supervision has brought about significant development in instructional practices. This study explored the perceptions of secondary school level supervisors regarding incorporating the social media tool Twitter for collaborating during the clinical supervision process. Though literature exists regarding the effectiveness of clinical supervision and social media, gaps in literature exist regarding the innovative clinical supervision model incorporating Twitter specifically. With clinical supervision, supervisors and teachers work together to improve the student's learning by improving teachers' classroom instruction. This study was designed to explore instructional practices that may help the cognitive development of teachers at secondary schools in Guyana and ultimately improve teacher readiness as a necessary step to improving student performance.

This chapter was structured to show the process of the study. Driven by the literature, this chapter focused on the background of the research problem and a conceptual framework that supported the problem. For clarity, definitions and assumptions were included. The chapter concluded with the significance of the study and how it may affect social change.

Background

In recent times, the President of Guyana, Minister of Education, and other stakeholders have expressed concerns about the performance of students in public examinations. According to the Minister of Education's (2017) annual report, an analysis of the 2017 results revealed that the overall pass rate at the general and technical proficiencies for grades I to III was 63.68% a minimal increase from 2016 where a pass rate of 63.39 was attained. In accordance with the Monitoring Evaluation, Research & Development Unit's (2015) report, the fact that many secondary schools are not performing at secondary students' competency level as prescribed by the school performance framework of the Ministry of Education (MOE) Guyana, is cause for concern. Also, with rapid social and technological change, teachers should be able to access necessary experiences to deal with changing realities. In an effort to combat the issues of low student performance and the need for effective classroom instruction the government of Guyana committed to the one laptop per teacher (OLPT) initiative. The goal was to enable teachers to make use of online support for collaboration. Working with secondary level supervisors to improve existing classroom instruction through Cogan's clinical supervision model incorporating the social media tool Twitter may be a key factor in meeting learning objectives and instructional practices of classrooms today.

Clinical supervision and social media for teacher effectiveness have been examined separately. Several distinct ideas for effective teaching practices include: shared and collaborative interaction, appropriate feedback, reflection and flexibility, hands-on application, access to technology, and connectedness. What was not

understood, however, was the effect of clinical supervision incorporating the social media tool Twitter for collaborative purposes.

Bulunz et al., (2014) argued that clinical supervision in itself led to a more encouraging school environment, improved teaching performance, and instructional improvement. Farhat (2016), Nabhani, Bahous, and Sabra (2015), and Sebastian-Hooks (2015) also posited that clinical supervision can lead to teacher effectiveness. Similarly, the use of social media tools may precede effective classroom instruction.

The use of social media tools is very common among learners today. According to Donelan, 2016 and Seechaliao, 2014 integrating the digital experiences of learners into instruction may be an effective approach in the learning process. Oakley and Pegrum (2015) argued that educators benefit from formal and informal professional learning strategies when social media tools were integrated into the learning process. Also, findings from Donelan (2016), Langhorst (2015), and Lord and Lomicka (2014) suggested specifically that the use of Twitter in education may be of importance in accessing various educators, experts in the fields, and instructional resources. Bista (2015) concluded that the use of Twitter provided space and opportunities for higher education graduates and their mentors to participate in academic activities. Likewise, Siemens (2005) found that learning took place through connections and connectiveness within networks. According to Siemens, digital technology contributed to new channels of learning that were not possible before the digital age. Through connectivity information is shared. Therefore, learning takes place individually as well as across networks. By incorporating the social media tool Twitter into the clinical supervision

process teachers may connect to networks and share information. However, there is a lack of research on Twitter when incorporated in the clinical supervision process.

Though literature exists independently on clinical supervision and Twitter, no research exists exploring the perceptions of secondary level supervisors regarding the clinical supervision process where Twitter is used as a collaborative tool. Almendarez-Cadena (2014) argued the need for flexible and technology-based hybrid professional development for high school teachers that combines face-to-face and online training for professional growth. Combining clinical supervision with Twitter may provide individualization, direct feedback, and applicability of new skills. Introducing Twitter to clinical supervision may have a very positive influence on teacher effectiveness and student achievement. There was no literature regarding clinical supervision incorporating Twitter into instructional supervision process. This study was intended to address this gap and provide educators with rich descriptions and valuable insights into clinical supervision in a collaborative environment.

Problem Statement

The problem in this qualitative study was the perceptions of secondary school level supervisors on the use of Twitter for collaborating with teachers in the clinical supervision process. In accordance with the Guyana Teacher Education draft standards (2010), there is an increasing demand for teacher proficiency in Guyana. To meet teacher education standards, education policies have ensured instructional supervision in schools. However, there are mixed views of the supervision process. Bulunz et al., (2014), Farhat (2016) and Nabhani et al., (2015) have expressed concerns with traditional supervision

which they saw as an experience teachers see as administrative and responsive to organizational needs rather than collaborative. Ibara (2013) noted that traditional supervision tends to be centered on fixed guidelines and principles that are largely seen as judgmental and fault finding. Although collaboration between supervisors and teachers is important to consider in the practice of instructional supervision, it has not been examined. No study explored the perceptions of secondary school level supervisors regarding incorporating Twitter for collaborating with teachers in the clinical supervision process.

According to Usman (2015), traditional supervision of instruction is effective. However, many secondary schools are not performing at competency level of students according to secondary school performance framework prescribed by the Ministry of Education, Guyana. Even though traditional supervision is necessary for improving teaching quality collaborative forms of supervision may be more effective in bringing about shift in classroom instruction than traditional forms of supervision according to Arnell (2014), Johnson, Wesley, and Yerrick (2016) and Sandra (2015). According to Hauer, Ten Cate, Boscardin, Irby, Iobst, and O'Sullivan (2014) there is a growing need for collaboration in supervision between supervisors and trainees for patient care. Cogan's model of clinical supervision provides opportunities for collaboration between supervisors and teachers thus being pertinent to my study. This model is applied to the instructional supervision process where supervisors observe and give direct feedback to teachers regarding areas of their teaching as identified by teachers for improvement. Like Bulunz et al., (2014), Langhorst (2015), Nabhani et al., (2015), Farhat, (2016) used

Cogan's model of clinical supervision and found that clinical supervision promoted professional development and improved teaching practices.

Siemens' theory of connectivism was used to explain learning in an increasingly digital society. Seechaliao (2014) argued that lecturers thought social media brought value to teaching and, therefore, could be useful tools for collaborative learning. Twitter, according to Bista (2015), Langhorst (2015) and Colwell and Hutchison (2018), allowed for further feedback and opportunities for supervisors and teachers to create and share information and present lessons almost immediately in an innovative way. Halvdan and Inger (2014) posited that motivations associated with self-development and broadening networks were the driving force behind teachers' likelihood of using social media. Further, Donelan (2016) argued that examining what occurs in a technological and connected society may have beneficial effects on teaching and learning. Almendarez-Cadena (2014) recommended for high school teachers the use of blended professional development - face-to-face and online support for professional growth. Similarly, Hea-Jin (2014) found that professional growth occurred with blended professional development activities and further noted that a more learner-centered classroom followed.

Clinical supervision incorporating Twitter as a professional development activity may foster professional growth, improve teaching practices, and invariably improve student performance. While little was known about the perceptions of secondary school level supervisors regarding clinical supervision processes incorporating Twitter, making use of hybrid or blended professional development activities may be beneficial for the supervision process and ultimately teaching and learning. This study will contribute to

this body of knowledge by creating secondary school level supervisors increased understanding of clinical supervision processes incorporating Twitter for online support and how level supervisors perceive these processes.

Purpose of the Study

The purpose of this qualitative study was to explore the perceptions of secondary school level supervisors regarding the use of Twitter for collaborating with teachers during the clinical supervision process. Apart from the value of online support during the clinical supervision process, this study may explain how the growth and development of teachers may be enabled. It is critical to understand supervisor perceptions regarding hybrid professional development activities because these perceptions may influence the quality of instruction and student achievement.

For this study, secondary level supervisors in Guyana were at public secondary schools, supervising core subject teachers from levels 7 to 9 and had an understanding of the use of Twitter and Cogan's clinical supervision model. Data were gathered from 10 level supervisors. The following questions guided this research.

Research Questions

RQ1: What are the perceptions of secondary school level supervisors regarding the use of Twitter for collaborating with teachers during the clinical supervision process?

RQ2: What are the perceived influences of incorporating Twitter in the clinical supervision process and professional development of teachers at secondary schools?

RQ3: How do secondary school level supervisors perceive the connection between clinical supervision incorporating Twitter and student achievement in the classroom?

RQ4: How do the perceptions of secondary school level supervisors regarding using Twitter in clinical supervision influence their likelihood to use Twitter professionally?

Conceptual Framework

For this study, Cogan's model of clinical supervision and Siemens' theory of connectivism were shown to be pertinent. Cogan's clinical supervision model involves collaborative sessions where a supervisor and teacher discuss and analyze observed classroom instruction to promote professional development. The process involves five steps: pre-conferencing, where the supervisor and teacher decide on foci of instruction, observation of instruction in the teacher's normal classroom setting, analysis of the data collected, post-conferencing, where the supervisor and the teacher discuss the analysis and plan for improvement, and reflection, where the teacher critiques the supervisory process and indicates to the supervisor what was valued and what needed adjustment. Siemens' theory of connectivism provides opportunities for building professional networks. Through connectedness within networks, opportunities are provided for teachers to develop their knowledge and instructional skills. Best practices are shared and teachers can apply promptly what they learn to their classroom instruction. This combination of Cogan's model of clinical supervision and Siemens' connectivism provided guidelines for the research questions and instrument development and the lens through which the central phenomenon was analyzed. While clinical supervision offered face to face support, the use of Twitter offered online support for collaboration. Accordingly, valuable insights were sought on clinical supervision of instruction incorporating collaborative tools for online support.

Nature of the Study

Clinical supervision incorporating Twitter offers collaborative and collegial sessions between supervisor and teacher and wider learning communities (Farhat, 2016; Nabhani et al., 2015; Oakley & Pegrum, 2015; Seechaliao, 2014). To investigate the perceptions of individuals, the qualitative inquiry is best suited for non-numerical data (Patton, 2015). This study was a qualitative inquiry using interviews to build themes based on the perceptions of level supervisors at secondary schools. This design provides rich descriptions regarding unique issues. It seeks to explain, explore, and understand a phenomenon of interest. The focus of this study was to explore in accordance with qualitative research the perceptions of secondary school level supervisors in Guyana regarding incorporating Twitter for collaborating with secondary school teachers during the clinical supervision process. According to Nabhani et al., (2015), traditional form of supervision creates a need for collaborative approaches that can benefit secondary school teachers' teaching practices and ultimately student achievement.

To answer research questions, data were collected from in-depth interviews with secondary school level supervisors. Data were coded and analyzed using the conceptual framework of Cogan's clinical supervision model and Siemens' theory of connectivism as the lenses through which the perceptions of participants were interpreted. Analysis of emerging themes and patterns was completed. Using a qualitative approach to this study may not only aid in developing and implementing best teaching practices for secondary school teachers in Guyana but also secondary schools wanting to improve classroom instruction and student achievement.

Definitions

Administrative supervision: Evaluation of classroom instruction centered on fixed guidelines and principles that are largely seen as judgmental and fault-finding (Ibara, 2013).

Clinical supervision: Supervision that focuses on instructional improvement using organized cycles of planning, observation, and analysis of actual teaching performance in the interest of making sound modification (Bulunz et al., 2014; Farhat, 2016; Nabhani et al., 2015).

Collaborative supervision: Teachers in a specific field connecting and collaborating to satisfy the needs of the participating teachers and bring about learning. It is a system to develop cooperative learning between supervisors and supervisees (Farhat, 2016; Nabhani et al., 2015).

Culturally responsive curricula: Purposely connecting learners' experiences to instruction so that learning encounters can be more relevant and actual (Douglas, 2015). It is about acknowledging the diversity of learners and using what is familiar to them to teach.

Hybrid professional development: Online and face-to-face or blended activities professionals use to acquire skills and competencies needed to produce positive educational results for learners (Almendarez-Cadena, 2014; Hea-Jin, 2014).

Instructional supervision: Overseeing classroom instruction to improve teaching practices and student performance.

Level supervisor: A senior teacher who has the responsibility to oversee all teachers at a specific level.

Online support: The principle of teachers collaborating through group participation and discussions in an online environment to share educational resources that can help to determine best teaching practices (Oakley & Pegrum, 2015; Siemens, 2005).

Secondary school: The last 5 years of formal education, including forms/levels 1-5 and grades 7-11. There are five grade levels in Guyana.

Teaching practices: Methods, procedures, and techniques teachers use to organize and present curriculum to learners.

Assumptions

For this study, I had three assumptions. First, participants were open, honest, and able to answer voluntarily each interview question. Next, level supervisors at secondary schools participated in professional development related to clinical supervision and the use of Twitter and finally, participants were available and completed the entire interview process.

Scope and Delimitations

The purpose of this study was to explore the perceptions of secondary school level supervisors in Guyana regarding using Twitter for collaborating with teachers during the clinical supervision process. Supervision of instruction and social media are integral in the learning process. Supervision of instruction tends to improve instructional practices of teachers, and through social media, teachers can use these platforms to connect and collaborate. Giving meaning to the perceptions of secondary school level

supervisors regarding clinical supervision that incorporates Twitter can help educational institutions make informed decisions. The focus of this study was on secondary school levels 7 to 9, particularly supervisors of core subject teachers in Guyana who have knowledge of clinical supervision and the use of Twitter. Accordingly, this limited the transferability to other populations of supervisors at other levels and other schools outside of Guyana.

This approach to supervision is different from traditional supervision which is generally administrative as opposed to the more collegial approach of clinical supervision incorporating Twitter. Administrative supervision such as reflective supervision, competency based supervision, and professional supervision were considered, but the clinical supervision model of Cogan was selected for this study because it is collaborative. As the purpose of this study was to gather information concerning the perceptions of secondary level supervisors regarding clinical supervision incorporating Twitter, the learning theory of connectivism was chosen to support learning through collaboration and connectedness. Connectivism means that learning is not internal or individualistic but rather connected and expanded to others.

While clinical supervision incorporating Twitter has transferability to other levels of education and learning environments, the perceptions of participants of this study would be unique and specific to just this population. Further, supervisors without clinical supervision incorporating Twitter experience were excluded. Transferability of the findings may inform educational policy and practice as well as future research regarding blended approaches to instructional supervision.

Limitations

Limitations can affect study results. Following are limitations of this study. First, this study was limited to secondary school level supervisors' perceptions of using Twitter during their clinical supervision process. The specificity of the study population may prevent generalizability to other populations and experiences. Next, data were taken from secondary school level supervisors. Future studies can include other levels, including early childhood, primary, or post-secondary. Also, my presence had the potential to affect the responses of participants during the qualitative questioning as participants could have been past student teachers. However, my role reversal was explained to participants. Finally, secondary school level supervisors are located in 10 ten regions in Guyana and could have presented some interviewing challenges, for example, access and response rates. All regions did not have connectivity and infrastructure. However, only in one region secondary school level supervisors had knowledge of the blended approach to instructional supervision.

Significance

This research will fill a gap in literature by creating secondary school level supervisor increased understanding of the innovative clinical supervision process incorporating Twitter for secondary schools. What is known about clinical supervision and Twitter have been informed by separate research studies. Collaboration using social media in the supervisory process has been an under researched component of secondary schools. This study would be significant because no study examined clinical supervision incorporating Twitter in instructional supervision. Findings suggested that collaborative

supervision can result in effective teaching practices. Findings from this study may provide valuable insights into supervision of instruction, instructional practices, and policies and procedures.

Clinical supervision incorporating Twitter allows for professional growth and innovative teaching practices in a timely manner to address needs of diverse learners in a rapidly changing society. Additionally, social and professional interactions among teachers and supervisors offer opportunities for collaboration, respect for diversity, and accountability. Not only can clinical supervision incorporating Twitter lead to innovative teaching practices and social and professional interactions, it can also encourage social change by inspiring teachers to raise secondary student competency levels to meet student performance framework as prescribed by MOE Guyana, to produce students who are culturally respectful and responsible, and giving these teachers the necessary skills to collaborate. This study may also inform education officials in order to update professional development policies.

Summary

Supervision of instruction affords opportunities for growth and development of teachers and ultimately school programs. Yet learning goals and standards are often not met. Much of what is known about supervision of instruction is limited to face-to-face interactions despite the rise of social media for online support. Clinical supervision and the use of Twitter have been studied separately. A gap, therefore, existed regarding how supervision of instruction incorporating Twitter that focuses on the use of consultative

and collaborative practices may influence secondary school level supervisors and teaching practices of secondary school teachers in Guyana.

To understand this unique process of blended supervision, the perceptions of secondary school level supervisors in Guyana were sought regarding how clinical supervision incorporating Twitter could influence teaching practices and student performance. Not only can this blended approach to supervision benefit the teaching learning process, but it also can give teachers in Guyana continuous professional development instead of just responding to organizational needs as would be gained through traditional supervision. Even though limitations and issues involving complete transferability may have arisen in this study, I have taken steps to deal with limitations and possible biases that will allow this study to inform educational policy and practice in Guyana as well as future research and discourse regarding blended supervision. I explained my role as researcher to participants. I addressed each limitation and I precisely described the design of my study.

Chapter 1 examined the background of this qualitative study, the problem statement, and the purpose of the study. Research questions, as well as the conceptual framework of the clinical supervision model and the learning theory of connectivism showed how the study was conducted. The nature of the study, definitions of terms used in the study, assumptions of the study, scope and delimitations, and limitations were also outlined. To conclude, the significance of the study including possible contributions to the advancement of knowledge in the field of education and implications for positive social change was examined.

In Chapter 2, I examine the literature that guided the research. The literature review outlined and synthesized literature that supported this study. The conceptual framework of connectivism provided a guide to research and interpretation of results. The lack of blended approach to instructional supervision, a gap in the literature, was identified and how this study helped to fill the gap is explained.

Chapter 2: Literature Review

This qualitative study explored the perceptions of secondary school level supervisors regarding the use of Twitter for collaborating with teachers in the clinical supervision process. According to Almendarez-Cadena (2014) and Arnell (2014), hybrid supervision of instruction that provides opportunities to accommodate individual needs of teachers may be significant for teacher improvement and ultimately student learning. This study is designed to fill a gap in the literature by creating secondary school level supervisors increased understanding of the role of clinical supervision incorporating Twitter in classroom instruction. Unlike traditional supervision, which is an approach that involves supervisors as experts on classroom instruction and teachers subjected to rigorous inspections and evaluations (Ibara, 2013), with clinical supervision there is collaboration between supervisors and teachers. Bulunz et al., (2014), Farhat (2016) and Nabhani et al., (2015) posited that there are opportunities for individual needs of teachers to be identified and satisfied. Incorporating Twitter into clinical supervision was a different approach to supervision than traditional supervision. This approach can provide increased flexibility that may help develop teachers who can adjust instructional practices and provide quality teaching and ultimately student success.

Teachers who use social media, according to Donelan (2016), Langhorst (2015) and Visser, Evering, and Barrett (2014) were likely to develop a wider range of motivations for using them and experience more successful outcomes. The notion of collaboration and networking is related to the clinical supervision model of Cogan and connectivism theory posited by Siemens. Supervisors and teachers should collaborate on

teaching improvement and mutual trust and independence to express ideas to form the basis for such collaboration (Nabhani et al., 2015). Like Cogan, Siemens supported the need for collaboration. His theory of connectivism concentrated on learning by networking. Through connectedness within networks, opportunities to build professional links and connections are provided.

This chapter outlined relevant literature regarding the clinical supervision model and the theory of connectivism. Subcategories included supervision of instruction, Twitter, and blended professional development. A synthesis of relevant literature was presented.

Literature Search Strategy

The Walden University Library was used to collect relevant literature for this study using the following keywords: clinical supervision, online supervision, social media, and hybrid supervision of instruction, blended professional development, connectivism, clinical supervision and social media, connectivism and teaching, teacher online collaboration, connectivist learning, and online professional development. The literature search was intended to identify studies related to clinical supervision using social media and which examined the significance of connectivism in the teaching practices of teachers.

Through the Walden Library, access to the following databases was possible: ProQuest Central, ERIC, and Education Source. Google Scholar was used also to find recent literature and as a reference for more information. To institute academic rigor, all articles were peer-reviewed, and were limited to dates between 2014 and 2019.

Nonetheless, earlier studies were used. Using a combination of earlier and current studies was helpful with this study.

Conceptual Framework

The clinical supervision model of Cogan and the connectivism theory of Siemens formed the basis of the conceptual framework. Cogan identified the characteristics of supervisors and supervisees (teachers) and the process by which supervision in classroom instruction could improve teaching and learning. Of the four models of supervision explored, including reflective supervision, competency based supervision, and professional supervision, Cogan's model was selected because it allowed for collaboration and common understanding between supervisors and teachers. Also, teachers were free to express their views which other forms of supervision ignored. Moreover, Siemens' theory of connectivism supported the clinical supervision model of Cogan. According to Siemens, knowledge is continually changing, and by collaborating, learners are connected to the changes. For Siemens, learning takes place when learners connect to each other and subject matter through technology.

Online professional development activities have significantly met the professional needs and changed the state of classroom instruction of high school teachers (Almendarez-Cadena, 2014) and university lecturers (Oakley & Pegrum, 2015). In fact, according to Nabhani et al., (2015), online learning widened access to educational opportunities for nontraditional learners and allowed for increased flexibility for traditional learners. Also, professional development activities, specifically supervision of instruction, require focus on collaboration and not just administrative forms of

supervision (Farhat, 2016). This collaborative approach to supervision is tied to the clinical supervision theory of Cogan and the connectivism learning theory of Siemens, principles of my study.

The clinical supervision model of Cogan involves collaborative conferences where supervisors and teachers confer and evaluate observed classroom instruction with the aim of encouraging professional development. The theory of connectivism focuses on interacting and learning through networks, multifaceted systems, and adapting to pattern shifts (Siemens, 2005). Not only have online support and face-to-face supervision, a collaborative approach to supervision, between supervisor and teacher been touted as likely to increase teachers access to best practices, they have also been seen as facilitating the transformation of learning institutions and teaching practices. Having recognized the value of online learning and collaborative supervision to the educational system in Guyana, the next stage in the research process was to determine the perceptions of secondary school level supervisors regarding incorporating Twitter for collaborating with teachers in the clinical supervision process.

Teachers at secondary schools in Guyana tend to be exposed to evaluative rather than collaborative forms of supervision, which may not be relevant to the individual needs of the teacher. According to Farhat (2016), teachers not having their individual instructional needs met may have wider implications when it comes to teaching qualities at the national level. While there is a rich body of literature regarding supervision of instruction and connectivism, clear gaps exist in the research of professional development

opportunities for supervisors at secondary schools in Guyana and a collaborative online approach to instructional supervision.

Literature Review Related to Key Concepts

Clinical Supervision

Models of supervision of instruction do not pass judgment on the performance of the teacher but rather is collegial Nabhani et al., (2015) concluded. For Farhat (2016) fault finding and autocratic forms of supervision can inhibit instructional improvement. Therefore, for instructional supervision to be effective, it should be guided through collegiality. According to Farhat (2016) and Nabhani et al., (2015) Cogan's clinical supervision model encourages collegiality. It is a more organized and diagnostic form of supervision that intensely examines practices and conduct of teachers in a collegial manner. The intent of clinical supervision is not for organizational purposes but for supervisors and teachers to agree on objectives and teachers to take ownership of their learning and development (Moswela & Mphale, 2015). Clinical supervision is grounded in the work of Morris Cogan. Of importance to Cogan is the ability of teachers to look reflectively on their teaching practices and simultaneously manage their own learning and professional growth. Clinical supervision is cyclical and has five manageable steps (Farhat, 2016; Nabhani et al., 2015) First, the preconference between supervisor and teacher to determine the reason, purpose, focus, and time of the observation. Next, the actual observation occurs and an analysis and interpretation of the observation is done. Finally, post conference of observation to plan for instructional improvement is done and critique of the previous steps follows.

There are different perceptions of the value of clinical supervision. Based on wide-ranging literature review on supervision of instruction, Nabhani et al., (2015) claimed that the merit of clinical supervision was that teaching practices of teachers and their ability to be reflective could improve because there is mutual trust and equal standing between supervisor and teacher. This autonomous and supportive environment, applicable to both the novice and veteran teacher could improve instructional design, the performance of teachers, and academic experience for students according to Benigno (2016) and Nabhani et al., (2015). Clinical supervision integrates knowledge and skills of supervisors and teachers in a collegial mood (Farhat, 2016; Nabhani et al., 2015). Despite the clinical supervision model necessitates time and resources, the need for manageable size classes, specialist supervisors, and a properly structured government management system, the outcome is effective teaching (Farhat, 2016; Moswela & Mphale, 2015). The clinical supervision model exposes and widens the experiences of teachers (Bulunz et al. 2014) as well as supervisors (Gürsoy, Kesner, & Salihoglu, 2016).

Clinical supervision establishes professional development as it allows teachers to reflect on the way they function (Bulunz et al., 2014). Bulunz et al., (2014), Farhat, (2016), and Nabhani et al., (2015) are not the only ones that see the benefit of clinical supervision. Kelting, Jenkins, and Gaudreault (2014) and Moswela and Mphale (2015) argued that clinical supervision could result in improved teaching practices and professional growth and development of teachers. Clinical supervision is relatively new to many Guyanese teachers as there are no documented experiences. Exposing secondary

school teachers to this process may improve their performance and eventually the achievement of students.

Despite the perception of clinical supervision being time consuming and the need for plentiful resources, Farhat (2016), Kelting et al., (2014), Moswela and Mphale (2015) and Nabhani et al., (2015) suggested that clinical supervision could lead to teacher effectiveness. Gürsoy et al., (2016), Bulunz et al., (2014) and Moswela and Mphale, 2015 argued that clinical supervision influences learning activities of students, opportunities for supervisors and teachers to meaningfully dialogue, and appropriate and timely feedback between supervisors and supervisees. Further, Benigno (2016) and Gürsoy et al., (2016) stated that clinical supervision has the ability to standardize all components of teaching practices. That is, to develop systemize standards of teaching practice. Bulunz et al., (2014) concluded that the clinical supervision model is a good structured model. Furthermore, Gürsoy et al., contended that the clinical supervision model increased supervisory skills and experience of supervisors, and teachers tended to be satisfied with their supervisors and were more receptive to frequent visits. Apart from offering professional development, clinical supervision can work as a vehicle for change.

Clinical Supervision as a Vehicle for Change

Clinical supervision can impact entire school cultures. Individuals exposed to clinical supervision, irrespective of years of service, experienced changes in behavior (Benigno, 2016; Nabhani et al., 2015). Skills of supervisors widened and deepened; teachers displayed improved knowledge and skills; and academic experiences of students were enhanced (Bulunz et al., 2014; Gürsoy et al., 2016). With clinical supervision there

is support and continued training and growth and development throughout the career of the teacher. When there is collaboration, there is improved classroom performance and improved learning opportunities for students (Benigno, 2016; Nabhani et al., 2015).

Although coined in 1973 by Cogan and applied in other countries, it should be reiterated that clinical supervision is rather new to Guyana and even more so when incorporating social media, specifically Twitter. At present, there is no research on Cogan's model of the clinical supervision process in the education system of Guyana, independently or combined with online support.

Literature on clinical supervision supports the importance of collaboration in supervision of instruction (Bulunz et al., 2014; Farhat, 2016; Nabhani et al., 2015). Data over the last five years have steered researchers to come to the conclusion that clinical supervision is collegial. While the use of the clinical supervision in face-to-face environments has been explored, a gap in the literature remains regarding whether clinical supervision incorporating Twitter can influence the teaching quality of secondary school teachers. In fact, Farhat (2016) noted that clinical supervision alone may not be able to improve the performance of teachers and achievement of students. Incorporating Twitter that focuses on consultative and collaborative practices may influence teaching practices.

Supervision of Instruction

More and more, supervision of teachers is pointing to growth and development of the teacher and improving teaching and learning. According to Nabhani et al., (2015), traditional teacher supervision concentrated mainly on the environment of classroom

instead of the improvement of teaching and learning. Nabhani et al., suggested the use of a model that can shift from evaluating teachers to increased student learning outcomes as Cogan's clinical supervision model. Bulunz et al., (2014), Farhat (2016) and Nabhani et al., have shown how clinical supervision using a connectivist approach in accordance with Foroughi, 2015, Garcian et al., (2015), Kivunja (2014) and Siemens (2005), is consistent with instructional supervision, specifically, professional development for teachers and student learning. It is hoped that supervision would improve classroom instruction and teachers professionally so that teachers would be more effective and students would improve academically. Any form of supervision that concentrates solely on evaluating teachers to ascertain whether organizational needs and expectations are met and does not concern itself with curriculum and instruction cannot improve the performance of teachers or the achievement of students (Farhat, 2016). In fact, supervision related to consultative, collaborative, and developmental practices is seen as superior to all other forms of supervision.

Supervision has been heralded as the most important feature of the teaching learning process (Gonsalvez & Calvert, 2014; Strieker, Adams, Cone, Hubbard, & Lim, 2016), and possibly, the most challenging (Mette, Anderson, Nieuwenhuizen, Range, Hvidston, & Doty, 2017; Barnawi, 2016). With the aim of improving learning, studies (Bulunz et al. 2014; Farhat, 2016; Gürsoy, Kesner, & Salihoglu, 2016) have demonstrated change in the roles and responsibilities of supervisors and supervisees, recognizing the important role of supervision in the growth and development of teacher and student achievement. Given this situation, research on supervision has indicated

some displeasure with approaches to supervision that are administrative, judgmental, and potentially biased, and purported a need for new approaches that improve professional growth of teachers. For example, Gonsalvez and Calvert (2014) promoted competency based supervision where the effectiveness of teachers is evaluated against a fixed standard. However, competency evaluation is complicated and hard to do and can be compromised either by leniency or biases (Gonsalvez & Calvert, 2014). Conversely, Strieker et al., (2016) suggested that collaborative and nondirective communicative models played a major role in enabling teachers to demonstrate self-directed and self-regulated learning.

Barnawi (2016) pinpointed relations between teachers and supervisors. Based on findings, it was suggested that supervisors reconceptualize their roles, ask questions of their own traditions, and be opened to continuous consultations with teachers. Mette et al., 2017 argued that supervisors should function as instructional coaches instead of managers of teachers. In their study, the distinction between supervision and evaluation was made. Mette et al., convincingly stated that supervision offers continuing support for the professional growth and development of teachers whereas evaluation focuses mainly on assessment of performance. Accordingly, supervision should be based on the need of the teacher at that particular time and place. With clinical supervision, the teacher identifies areas in which support is needed.

The function of supervision is to help teachers improve instruction and ultimately, student achievement. A school ethos where continuous growth and development are entrenched in daily practice tends to experience high student achievement (Mette et al,

2017). By being appreciative to the individual needs of teachers, efforts would be directed to prior agreed on areas for improvement. Sebastian-Hooks (2015) explored the perceptions of middle school teachers of professional development, its connection to student achievement, and factors influencing implementation. Findings showed that professional development activity should provide for direct feedback and guidance and for participants to be able to apply immediately new skills which are principles of the clinical supervision process. Findings also indicated that the disconnect between the training teachers receive and its application limits its influence on student achievement. Clinical supervision recognized weaknesses and encouraged efficiency. One invariable finding in the literature is that notable improvements in the learning process occur when the learning environment enables learners to take responsibility for their own learning. Clinical supervision evokes teacher participation and leadership in supervision.

Connectivism

Effective learning environments increasingly emphasize a collaborative approach to learning. With this approach, learning is more shared and the figure of authority is no longer seen as the only expert in the field but others also are involved in the learning process (Foroughi, 2015; Garcia, Elbeltagi, Brown & Dungay, 2015; Siemens, 2005). The learning theory of connectivism as posited by Siemens (2005) detailed how technology presented opportunities for such collaboration in the learning process. Siemens, accredited for the theory of connectivism, believed that there was a need for a learning theory which could respond to the changes in society with technology bringing the change. For Siemens, connectivism conveyed a learning model that recognized the

changes in society where learning is no longer the center of individual activities. Information is from different sources and is acquired continuously. Therefore, for learning to be continuous, connections are needed. Of importance to Siemens was that learning takes place through connections and specifically connectiveness within networks.

Limitless Knowledge and Network Connections

Connectivism incorporated ideas from network, chaos, complexity, and self-organization theories. A network was based on the principle that entities—people, groups, systems, nodes—are connected to make a combined whole; and changes in the network can affect the whole. The principle of chaos is that meaning exists, and it is for learners to find the connections and patterns which seem to be unknown and make adjustments accordingly. Making meaning and forming connections are of importance. Complexity rests on the principle that nodes (fields, ideas, communities) are present both in individuals and as virtual disseminated information. The idea of self-organization is that the ability to form connections among sources of information and thus establishing valuable information patterns is essential for learning (Bali et al., 2016; Foroughi, 2015; Garcia et al., 2015; Halvdan, & Inger, 2014; Siemens, 2005). Thereby, Siemens theory of connectivism is based on the principles that learning and knowledge rest in diversity of opinions and learning is a process of connecting specialized nodes or information sources. Also, learning may reside in non-human appliances but the capacity to know more is more critical than what is currently known. Further, nurturing and maintaining connections are needed to facilitate continual learning. Also, the ability to see

connections between fields, ideas, and concepts is a core skill. For Siemens, currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities. Also, decision-making is itself a learning process. Choosing what to learn and the meaning of incoming information are seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision. In this perspective, knowledge is seen as limitless and spread over network connections. Learners identify important information patterns and make new connections thereby becoming active members in the learning process.

Technology Growth and Change

Connectivism has come to prominence with the advent of technology. Today, there is exponential growth in knowledge that leads to a very short half-life—the period from the time knowledge is achieved to the time it becomes outdated (Siemens, 2005). Half of the information known today was not possible ten years ago. In addition, every eighteen months the expanse of information in the world is doubling (Foroughi, 2015). Accordingly, new instructional methods are expected to be developed. Learners today are likely to change careers up to six times throughout their lifespans demonstrating the importance of lifelong learning and the establishing and retaining of connections to stay relevant according to Garcia et al., (2015), Foroughi (2015) and Siemens (2005). For Garcia et al. (2015), there is a need for responsive learners who can adjust to rapidly growing knowledge and who also can recognize the bases and conditions for the change which is a lifetime continuous process. The emphasis is not on the acquisition of knowledge but the ability to tap into various sources to satisfy required needs creating

very favorably learner centered environments. As knowledge continues to advance, Garcia et al., (2015) and Siemens (2005) argued that access to information needed is of paramount to learners rather than the information they have currently. Cognition can now be supported with computer technology (Foroughi, 2015).

Technology has redefined the learning process today. With connectivism learners are cognizant of the learning skills and tasks needed to grow and develop in this technological age. Unlike behaviorism, cognitivism, and constructivism theories - the most common learning theories, the theory of connectivism describes learning principles and processes reflective of the influence of technology (Siemens, 2005). Garcia et al., (2015) noted that connectivism provides a theoretical framework for the way the learning process can change because of the use of technology but also found that the principles of connectivism identified among participants, though not homogeneous to all, were the role of the teacher as no longer being the single source of expertise and knowledge, the creation of community, and the sharing of information. With a connectivist learning model, the roles of both teachers and students in higher education can change using blogging and in secondary schools using YouTube (Foroughi, 2015). Foroughi posited that the principles of connectivism are consistent with and can be used together with computer technology. As connectivism focuses on the value of learners actively pursuing sources of information and building connections, what was of importance to Foroughi was that computer technology which can be used for collection and evaluation of information may well assume this valued component of the learning process.

Connectivism and Learning in the Digital Age

According to Foroughi (2015), Garcia et al., (2015), Halvdan & Inger (2014) and Siemens (2005) there is the claim that while there may be something phenomenon about connectivism, it is not equal to learning theory. It is not visibly relevant to learning; it lacks rigor; and there are not sufficient fundamental qualitative studies to inform its advancement as a theory. Nevertheless, Foroughi, Garcia et al., 2015, Halvdan & Inger and Siemens posited that connectivism is better able to meet the needs of learners in the technological age more than theories that did not look at learning which can take place external of the individual as well. According to Marhan, 2006, as cited in Garcia et al., 2015 learning theories tend to be accurate only when situations arise. For example, constructivism is thought of being relevant only to learning new ideas or concepts. Bali et al., (2016) asserted that systems must co-evolve with their environments in order to be considered healthy. For this reason, connectivism is thought of being relevant to learning within the digital age. Kivunja (2014) said a shift is needed in pedagogy and curriculum from theories such as Vygotsky's constructivism to a connectivist model. This shift would allow learners to engage in self-regulating critical and creative thinking and problem solving—skills for 21st century learners using technology.

Connectivism is not a subject where numerous empirical researches are available especially with regards to the use of clinical supervision incorporating the social media tool Twitter and its influence on teaching practices. Nonetheless, research conducted in higher education and secondary schools corroborate the learning theory of Siemens.

With connectivism learning takes place in various ways and not just only in formal settings; thereby the role of the teacher is of greatest importance in this learning model

Social Media

Increasingly, social media is becoming a vital tool for professional growth and development. Social media such as Facebook, Instagram, YouTube, and Twitter are used extensively by learners (Donelan, 2016; Lord & Lomicka, 2014; Seechaliao, 2014). Still, its influence is not recognized by many learning institutions or it is used minimally (Siemens, 2005). Even traditional learning theories of cognitivism, behaviorism, and constructivism propose that learning is social. Though, for traditional learning theories, learning is based on the individual being the epitome of knowledge while the more current learning theory of connectivism suggests that learning occurs in a connectivist environment. According to Siemens (2005), knowledge is seen as infinite and extends widely over network connections. Moreover, online networking facilitates conversations among people from different populations.

Today online social networking seems to be part of the everyday life of learners. According to Donelan (2016) and Seechaliao (2014)) Facebook and YouTube are very common with learners. Incorporating the experiences of learners into instruction can be an effective strategy. Therefore, the possibilities of integrating Twitter in the learning process could be worth exploring. The possibilities for social media in education are boundless. Seechaliao (2014) said that lecturers in higher education thought social media brought value to teaching and, therefore, could be useful tools for collaborative learning.

Oakley and Pegrum (2015) found that unforeseen and unimagined professional learning ensued when lecturers interacted informally with colleagues and students. This networking of the spread of knowledge and skills between contemporaries and students and even wider learning communities can supplement formal learning. Of importance to Oakley and Pegrum was that integrating digital technologies into instructional practices could benefit teachers as it allowed for the use of informal and formal learning techniques. Motivations associated with self-development (Halvdan & Inger, 2014) and broadening networks (Donelan, (2016), tenets of connectivism, were the driving force behind teachers using social media. K-12 teachers and higher educators felt that devices that facilitated and promoted collaboration were of significance to their academic role. With collaborative approaches vast amount of information is easily reached. However, learning leaders often resist incorporating social media into their instructional practices because of negative views, dearth of skills, and a lack of time (Donelan, 2016; Estrada, 2013; Langhorst, 2015). Nonetheless, social media tools are available and learning leaders have been using them for professional growth and development and interaction with wider learning communities (Carpenter, 2015; Donelan, 2016; Oakley & Pegrum, 2015; Seechaliao, 2014).

Digital Learners

The characteristics of digital learners could influence teaching and learning. According to Oakley and Pegrum (2015), fundamental pedagogy remained the same except currently pedagogy functions in digital designs. This digital design is of particular concern especially to teachers who are expected to prepare learners for the future.

Learners today are digital. They hardly need to be converted as they already are dwelling in a connectivist environment (Siemens, 2005). It, therefore, makes no sense for teachers to continue to operate in traditional mode. Even though it may be difficult initially to conceptualize social media (Donelan, 2016; Oakley & Pegrum, 2015) educators reflected on their teaching as they became more knowledgeable about social media and adjusted as necessary (Lord & Lomicka, 2014; Oakley & Pegrum, 2015). Furthermore, higher educators that habitually used social media tools tended to have several impetuses for using them, experienced greater effective outcomes (Donelan, 2016), and made shifts in behavior (Langhorst, 2015; Lord & Lomicka, 2014).

Online peer collaboration could contribute to the professional development of teachers. The implication is that teacher improvement programs should incorporate peer-collaboration opportunities where teachers could share their learning and teaching experiences and be given useful feedback. Then, teachers would in turn do the same for their peers ultimately improving social and academic student outcomes. Additionally, data showed a distinct difference in teacher effectiveness with the use of social media. Schwartz-Bechet (2014) revealed that teachers who were supervised by supervisors who were receptive to use of computer technology were more effective in using the technology. Also, the teachers demonstrated thriving and sound classroom instruction. Further, the use of Twitter in education may be of importance in accessing various educators, experts in the fields, and instructional resources (Colwell & Hutchison, 2018). Bista (2015) found that the use of Twitter provided space and opportunities for

colleagues and mentors to participate in academic activities. By promoting social media platforms, access for personalized as well as group support is made available.

Notwithstanding the need for training in the use of computer technology and social media some learning leaders are not quite comfortable with adopting computer technologies. Despite some shortcomings considering the importance of social media in education, specifically Twitter, my study is of significance. Although professional development activities have been addressed through research, a gap in the literature on the perceptions of secondary school level supervisors on incorporating the social media tool Twitter for collaborating with teachers in the clinical supervision process still exists. While incorporating social media into professional development activities may be a relatively new phenomenon, indications suggest that incorporating Twitter to clinical supervision may have a very positive influence. In effect, Visser, Evering and Barrett (2014) found that in school environment K -12 teachers often use Twitter for professional development and improved teaching practice.

Twitter for Professional Development

Twitter has developed into an information networking system that allows users to contribute to online discussion. The education system can integrate Twitter as a pedagogical tool in and out of the classroom. Although it was a first time experience with Twitter for the participants, participants stated that Twitter provided space and opportunities to participate in academic activities. Also, Twitter allowed for immediate and regular information, interactions with teacher, and sharing of helpful information. While exploring how 26 preservice secondary content teachers perceived their

experiences participating in and developing a Twitter-based professional learning network that focused on disciplinary literacy, Colwell and Hutchison (2018) found that participants recognized the value of Twitter in accessing multiple educators, disciplinary experts, and classroom resources. Moreover, despite the participants' initial doubts about Twitter, continued use of Twitter dismissed such uncertainty (Colwell & Hutchison, 2018).

Learning leaders have investigated the use of Twitter in the teaching and learning process. For example, Visser et al. (2014) said that K-12 teachers used Twitter for professional development and improved teaching practice. However, despite the value of Twitter, teachers seem not to recognize its potential to teaching and learning. In fact, the Faculty Focus, 2009, as cited in Bista, 2015 indicated that more than half of approximately 2,000 faculty participants stated that they never used Twitter. Of the total participants, 30.7% used Twitter, and fewer than half of them used Twitter to communicate with students. The other 12.9% of participants stated that they used Twitter previously but no longer used it. For the participants who did not use Twitter, most of them did not see the relevance of Twitter to education.

Today, opportunities for professional growth and development of teachers are increasing particularly through online support that encourages the sharing of ideas and resources. However, there is little to no qualitative research on the use of Twitter in secondary schools across core subjects. This gap along with the potential of Twitter for education could help secondary school level supervisors and teachers improve teaching practices and ultimately student achievement.

Blended Professional Development

At present, educators can give instruction to a class of diverse population as opposed to traditional instruction where the individual was the focus of instruction. Accordingly, educators need opportunities for professional learning so that their existing instructional practices may improve and expand. Antalek (2014) said that computer-based instructional approaches and technological professional learning opportunities should be a part of an educational institution. Almendarez-Cadena (2014) said that high school teachers needed flexible, technology-based professional development that combine face-to-face and online training for professional growth. This hybrid professional development was relevant to my study of clinical supervision incorporating Twitter. Hea-Jin (2014) said the teaching practices of Mathematics teachers changed toward more learner-centered classes with the introduction of online support. Being able to use a broader variety of resources, verbal engagement was encouraged; different questioning techniques were used; and group collaboration was employed.

Summary and Conclusions

This study explored how teaching practices could be impacted by collaborative efforts. The focus of this study was the clinical supervision model incorporating Twitter. This professional development activity emphasized teacher-supervisor commitment to ensuring student learning, high levels of collaboration, and frequent reflection. This study is an alternative approach to improving teaching practices, focusing specifically on the perceptions of secondary school level supervisors on incorporating Twitter for collaborating with teachers in the clinical supervision process.

Supervision of instruction has been signaled as of utmost importance to professional growth and development in the teaching process. Using social media for professional development is not just exclusive to those who are technically proficient. In fact, teachers of all levels of education and proficiency can benefit from engaging in both face-to-face and online professional development activities. Although incorporating social media into professional development activities may have positive impact on the teaching learning process, many of these studies did not address the experiences of supervisors and teachers using a blended approach to professional development.

While professional development activities have been addressed through research, the literature on the perceptions of secondary school level supervisors with clinical supervision incorporating Twitter has not been identified. Based on the review of current literature, there seemed to be limited understanding of an innovative clinical supervision process incorporating Twitter and how supervisors see its role in improving teaching practices and student achievement. What is known about instructional supervision incorporating Twitter is limited by how researchers have been able to keep abreast of the rapid growth of technology. Changes in available technologies have created innovative opportunities for teaching and learning (Arnell, 2014; Langhorst, 2015). Chapter 3 discusses research methods by outlining the research design and rationale, the role of the researcher, the methodology, and the stages of making the study trustworthy and significant.

Chapter 3: Research Method

Introduction

The purpose of this qualitative study was to explore the perceptions of secondary school level supervisors regarding the use of Twitter for collaborating with teachers in the clinical supervision process. A large body of knowledge exists regarding the benefits of clinical supervision and social media. At the time of this study, there was little known about the perceptions of secondary school level supervisors with clinical supervision that involve Twitter. According to Langhorst (2015) hybrid or blended professional development activities can provide opportunities for collaborative professional development activities and ultimately increased student success.

For blended supervision to meet the needs of secondary school teachers, it was essential to understand incorporating Twitter during the clinical supervision process. The development of collegiality and collaboration and the sharing of information in real time may be central to professional growth and development opportunities for secondary school level supervisors and teachers. The knowledge gained through this study may facilitate the development of policies and practices that can address the instructional needs of secondary school teachers and their learners.

This chapter has five sections that describe the research methodology. First, I discuss the research design and rationale. This includes the phenomenon of interest, plan of approach, and research questions. The next section explains my role in the collection and analysis of data and how biases and ethical issues are managed. Third, the methodology section provides information from the sampling and data collection and

data analysis plan. Rigor of the study is described in the issues of trustworthiness section. Finally, a summary of main ideas and transition to Chapter 4 is provided.

Research Design and Rationale

The research design was a basic qualitative study. Literature on collaborative supervision and the use of social media for improved teaching practices guided the research questions. The research questions were explored to gain an understanding of the perceptions of secondary school level supervisors regarding incorporating Twitter for collaborating with teachers during the clinical supervision process.

Research Questions

RQ1: What are the perceptions of secondary school level supervisors regarding the use of Twitter for collaborating with teachers during the clinical supervision process?

RQ2: What are the perceived influences of incorporating Twitter in the clinical supervision process on the professional development of teachers at secondary schools?

RQ3: How do secondary school level supervisors perceive the connection of clinical supervision incorporating Twitter and student achievement in the classroom?

RQ4: How do perceptions of secondary school level supervisors on incorporating Twitter in clinical supervision influence their likelihood to use Twitter professionally?

Clinical supervision incorporating Twitter involves collaborative and collegial sessions between supervisors and teachers, teachers and teachers, and wider learning communities. To gain an understanding of collaborative supervision, the experiences and perceptions of participants were important. Thus, to investigate the perceptions of secondary school level supervisors and how they make sense of their experiences, a basic

qualitative inquiry approach was taken. A basic qualitative study approach focuses on in-depth explanations and analyses of an issue, program, or process (Merriam, 2014). Grounded theory could have been used as not much was known about clinical supervision incorporating Twitter. Grounded theory is used primarily to produce theory but the primary focus of this study was not to develop theory. Phenomenology could have also been used as it focuses on the lived experiences of individuals sharing similar experiences. However, phenomenology is not designed to investigate a process. Also, to describe the essence of the phenomenon, researchers have to draw on their understanding of participants' lived experiences (Patton, 2015). Given the purpose and research questions, the basic qualitative inquiry seemed to be the best fit for the study as it sought to find an in-depth understanding of a process.

The strength of the qualitative interview design is that it provides rich and deep descriptions of unique issues based on participants' own experiences and how they make sense of their experiences (Merriam, 2014). This design would be able to provide rich information regarding secondary level supervisors at school, in-depth and detailed analyses of the development of the clinical supervision process incorporating Twitter, and also give new meaning to the phenomenon under study. The intent of this study was to explore the perceptions of secondary school level supervisors regarding incorporating Twitter for collaborating with teachers in the clinical supervision process. At the time of this study, there was a paucity of literature on clinical supervision incorporating Twitter, and this basic qualitative study aimed to provide inquiries into collaborative supervision of instruction incorporating online support. Cogan's clinical supervision model and

Siemens' theory of connectivism acted as lenses through which the experiences of participants were seen. The clinical supervision model and theory of connectivism provided opportunities for collaboration. A basic qualitative inquiry is generally exploratory. It involves finding answers to research questions and uncovering effective practices and processes. This supported my chosen research design.

Role of the Researcher

My role as researcher was to conduct interviews and analyze participants' perceptions of clinical supervision incorporating Twitter. I am a teacher educator, and it was possible that I may have come into contact with level supervisors while they were at the teachers' college. Nonetheless, I had no supervisory relations with the participants. I collected and analyzed data. However, I was aware of my possible biases. As a teacher educator, I believed that teachers involvement in the supervision process would be more valuable than the traditional supervision they experienced. To minimize possible biases, my role reversal was explained to participants and I employed audit trailing from data collection to the interpretation of data.

Audit trailing is a method used to recognize biases and refer to them during the study. All decisions that were made and activities done to collect and analyze data were accounted for through audit trailing. This included raw data from interviews, notes taken, and entries from my reflective journal. Peer debriefing was another technique to manage biases. Here, my colleagues and experts in the field provided scholarly guidance exposing me to pointed questions and the opportunity to assess developing insights. Being aware of

biases and addressing them was necessary to present data as honestly and openly as possible.

Methodology

In this section, I provide the procedures for participation and data collection relevant to the basic qualitative inquiry. It includes reasons for recruiting and engaging participants, instrumentation, data collection, and the data analysis plan. Trustworthiness and ethical procedures are also addressed.

Participant Selection Logic

This study explored the perceptions of secondary school level supervisors on incorporating Twitter for collaborating with teachers in the clinical supervision process. Accordingly, the best source for locating participants for the study was secondary schools. For selection, the supervisors were full time teachers who had attained senior status at public secondary schools and had knowledge of the clinical supervision process and how Twitter could be used as a collaborative tool. The intent of this study was to gather rich thick information on the perceptions of secondary school level supervisors with clinical supervision incorporating Twitter. Even though teachers and principals would have been able to give information on the clinical supervision incorporating Twitter process, the suitable people were the secondary school level supervisors as they were the ones who had to implement the process. While teachers and principals could have helped to build deeper and wider understanding of the experiences of participants, their selection may have taken away from the actual experiences of the supervisors. The idea was to gain insights and in-depth understanding of the phenomenon from the people

who experienced the phenomenon and not to necessarily generalize and so random sampling was applicable. This process of selecting information rich cases is described as purposeful sampling.

After purposefully identifying participants for selection, the next step was to retrieve permission. The chief education officer (Ministry of Education, Guyana) was contacted in writing. I explained the study and requested permission to work with supervisors in the schools. This office also helped me to find schools where workshops were conducted on clinical supervision and the use of Twitter. While the target population experienced the phenomenon under study, other characteristics varied from individual to individual. Secondary schools in Guyana are located in all 10 administrative regions in urban and rural areas. Degrees of supervisors ranged from Masters in Education to trained teacher certificates. From a possible 426 secondary schools, the Ministry provided a list of 14 schools with 30 supervisors who satisfied the criteria. They all were invited to voluntarily participate. No money or any other incentives were offered. Participants were informed that they could exit the study at any time without any negative consequences.

Once identified, I contacted participants via e-mail and then by telephone. It was hoped that an adequate sample of about ten is taken. Patton (2015) suggested that data saturation or redundancy would determine the actual sample size. Saturation is reached when data collected reveal no more new insights on the analysis and subsequent results of the research (Patton, 2015). I analyzed participants' responses independently until data saturation was reached resulting in an adequate sample size of ten. As previously stated,

the criteria for identifying and recruiting participants were: have knowledge of the clinical supervision process incorporating Twitter for collaboration and be employed at a public secondary school.

Instrumentation

Interviews are one of the most common forms of data collection in basic qualitative research (Merriam, 2014). For this study, data were collected via interviews with secondary school level supervisors who had knowledge of the clinical supervision process incorporating Twitter for collaboration. An in-depth, researcher produced interview protocol was the instrument used to collect data from supervisors (see Appendix A). Besides little to no research on the phenomenon in Guyana, interviews allowed me to explore this phenomenon in depth. The research questions sought to explore the perceptions of secondary school level supervisors with clinical supervision incorporating Twitter. The recording of the experience of participants as they saw it may provide thorough descriptions of their opinions.

For my data collection instrument, concepts from the theoretical framework of this study, the study design, and the literature review formed the basis for the questions. These concepts were rewritten to express open-ended and expansive questions to make for a good data collection tool. On the data collection instrument, question (d) provided answers to RQ1, question (e) answered RQ2, and questions (f) and (g) answered RQ3 and RQ4 respectively. Arguably, this procedure can be subjective. Unlike a quantitative study, the researcher is the instrument in a qualitative study (Patton, 2015). Therefore, steps should be taken to ensure content validity. Apart from my chair and methodologist,

two of my colleagues experienced in education and technology and two professors experienced with qualitative research assessed my interview protocol for relevance, alignment, and clarity. Feedback from these experts helped to strengthen my instrumentation tool. Further, the use of an audit trail detailing instrument development, data collection, and data organization was employed to provide evidence of what was done in the study.

Procedures for Recruitment, Participation, and Data Collection

Generally, research questions guide the research design and ultimately, the data analysis. To answer my research questions, the following was done. For data collection, interviewing was the primary tool. Face-to-face interview was the preferred method; but telephone and/or email would have been done if participants were in remote areas. I conducted face-to-face interviews with ten supervisors. The idea was to develop succinct and efficient questions to yield rich results. Interviews were collected within 6 to 8 weeks and were not for more than an hour for each participant. There was no need for follow-up, so an arrangement to be put in place at the convenience of participants was not necessary. For interviews, I used audio recording, note taking, and reflective journaling for thoroughness in the interviewing process to reduce possible biases.

Participants for this study were selected from public schools where workshops on the clinical supervision incorporating the social media tool Twitter were conducted. From a total of approximately 426 secondary schools in Guyana, it was hoped that at least 30 supervisors had knowledge of the process and at least 10 would be willing and able to participate. Thirty supervisors satisfied the criteria and were contacted via email and

telephone and the process was explained. Data saturation determined my actual sample size of 10 as I analyzed the interviews one at a time from participants and not all at once. The strength of a qualitative interview inquiry lies in the richness and depth of the responses of participants. However, if recruitment had resulted in less than was required, then more supervisors would have been recruited. If this failed, then principals would be recruited. Although not the primary focus, principals may have been able to give insights into the clinical supervision incorporating Twitter process. However, this was not the case with this study.

At the end of the data collection phase, I thanked participants and reminded them that their participation was voluntary, no identifiable information would be disclosed, and confidentiality was assured. I informed participants that copies of their transcript would be available and draft copies of the analysis would be given to them to ensure their perceptions and feelings were captured. Also, if there were further thoughts they wanted to share or if follow-up interviews became necessary, they would be scheduled. Additionally, participants were informed on how to access my completed study. Furthermore, a summary of my dissertation (1-2 pages) will be shared with participants, principals, and Ministry of Education officials.

Data Analysis Plan

research questions guide the research design and ultimately, the data analysis. My research type was basic and exploratory by nature; content analysis was consistent with such an approach. Content analysis is a way of exploring interactions and giving meaning to the experience (Patton, 2015). The interview guide (see Appendix A) was

able to draw data for analysis to answer the research questions. On the interview guide questions (d) and (e) provided answers for RQ1 and RQ2. Participants shared their views on the use of the social media tool Twitter for collaborating in the clinical supervision process and their perceived influences of this blended approach on teachers' professional development. Question (f) answered RQ3 where participants deliberated the connection between clinical supervision incorporating Twitter and student achievement in the classroom. Question (g) answered RQ4 where level supervisors were given the opportunity to express their likelihood of using the collaborative tool twitter professionally.

While the mode of interview was face-to-face as this allowed me to access verbal as well as non-verbal cues, telephone and/or e-mail interviews were not ruled out. Using the interview protocol, interviews were recorded using voice recorder on my phone and transcribed verbatim. I read each transcribed interview and assigned coding schemes individually. This helped to identify themes and patterns to categorize the data. My initial analysis of the transcripts examined concepts and themes that were predominantly in the conceptual framework of connectivism and Cogan's clinical supervision model, my research questions, and literature review. I identified, specifically, the concepts of clinical supervision vs traditional supervision, collaboration, use of technology, applicability/relevance, blended professional development, and professional growth. While these codes formed my initial analysis, additional codes emerged such as *peer sharing, access, global village/social connection, choice, and feedback* and are included in my final analysis.

Coding forms the base for analysis. It plays an important role in interpreting interviews and helps in the sorting and organizing of data. After I analyzed and organized the data, I identified relations across themes. This coding process took several reiterations to produce thematic descriptions for data analysis. Further, I provided one place for data organizing and storing thus providing an audit trail of results. The results of the data collected revealed common themes and patterns among participants. There were generally no discrepant cases.

Issues of Trustworthiness

The human dimension of qualitative research lends itself to subjectivity and consequent issues or threats to trustworthiness. Steps need to be taken to ensure the integrity of findings. According to Anney (2014) this includes methods such as credibility, transferability, dependability, and conformability. Credibility ensures that findings are honest and unaffected. Transferability is the extent to which findings can be transferred to other environments with other participants. Dependability is the extent to which findings can be repeated consistently with similar/same participants in the same setting and conformability ensures that findings are in keeping with participants' responses only and not influenced by biases or interest of the researcher.

According to Anney (2014), debriefing, triangulation, and member check can account for credibility. Apart from building trust and confidence during face-to-face interaction with participants, this study employed debriefing and member check for credibility. For peer debriefing other professionals provided scholarly guidance exposing pointed questions and a chance to test the developing insights. The feedback helped to improve

the standard of the research. For member check, I gave participants draft copies of the analysis of data to check for accuracy of what was said and interpreted and to recommend changes if necessary. This helps to reduce researcher biases. For transferability, the stability of the research design provided consistency. I used the conceptual framework, purposeful sampling, and rich descriptions.

The connectivism theory of Siemens and clinical supervision model of Cogan provided the context for the purpose, research design, and data collection procedure of the study. Purposeful sampling allowed me to identify participants that were best suited to gather in-depth data. The idea was to get detailed information from individuals that experienced the phenomenon under study. An audit trail and detailed description of the study methodology from data collection and analysis strategy to the final report provide rich descriptions that can allow other researchers to repeat the study in comparable situations in other environments.

Dependability is guaranteed by the audit trail and member check methods and the reiterating of the research purpose and approach throughout the inquiry. By employing audit trail confirmability level increased. Also, reflexive journaling can establish confirmability. My reflexive journal reflects all events and activities as they unfolded. This includes information on the inquiry process and my position and views of the phenomenon under study. This way any biases that I may have had were controlled throughout the study. To institute rigor to the qualitative inquiry, credibility, transferability, dependability, and conformability were implemented.

Ethical Procedures

All approvals for Walden University, including IRB # 04-04-19-0389228 were sought and obtained before data collection. Permission to work with supervisors was sought and obtained from the Ministry of Education, Guyana. During the recruitment process permission was sought by email and telephone for supervisors to volunteer their services. An explanation of the procedure was given. For the actual participants, a consent form following the guidelines of Walden was issued for signature. At this time, I ensured that no participant was below the age of consent. Also, participants were reminded that they could leave the study at any time without any negative consequences. To account for possible early withdrawals, I contacted 30 secondary school level supervisors to participate in the interviews. I aimed to have at least 10 participants for the study. This was achieved in this study.

For this basic qualitative study, data were collected from supervisors. Data were collected through individual interviews. For ethical concerns, pseudonyms were used. For the interviews, names beginning with A were used. Also, pseudonyms were used to mask the identity of the Ministry of Education for its role in identifying potential participants. Any previous interaction with supervisors who may have been in my classes may not have any effect on the findings as my role was not supervisory or instructor related. For confidentiality, data will be secured on a password protected computer and on a removable hard drive which will be locked away at my home. No one would have access to this data. After five years, the suggested period, the data will be destroyed.

Summary

To institute rigor to the qualitative inquiry the researcher should strive to develop and maintain a detailed process throughout the study. Anney (2014) suggested the integrity of qualitative research rests on four key areas: credibility, transferability, dependability, and confirmability. To establish such rigor, in accordance with a basic qualitative design, a description of the study trustworthiness plan; credibility, transferability, dependability, and confirmability was given. This included the rationale for the research design and conceptual framework, the role of the researcher, recruitment process of the participants, and data analysis plan. As the focus of this research was to explore the perceptions of secondary school level supervisors on incorporating Twitter for collaborating with teachers in the clinical supervision process, their thoughts were central to the findings of this inquiry.

Benefits of increased understanding of the clinical supervision process incorporating Twitter for online support were anticipated by this study. Results may also encourage social change by inspiring supervisors to raise secondary student competency levels to meet higher government standards, to produce students who are culturally respectful and responsible, and by giving the teachers the necessary skills to do so. Chapter 4 includes a comprehensive analysis of the perceptions of supervisors regarding clinical supervision incorporating Twitter. Evidence of trustworthiness is also discussed. The focus was on finding answers to the research questions.

Chapter 4: Results

The purpose of this qualitative study was to explore the perceptions of secondary school level supervisors regarding the use of Twitter for collaborating with teachers in the clinical supervision process. Secondary school level supervisors' increased understanding of incorporating Twitter into the clinical supervision process presented a gap in the research literature. This study aimed to provide research to support a blended approach to professional development. The following questions guided this research.

RQ1: What are the perceptions of secondary school level supervisors regarding the use of Twitter for collaborating with teachers during the clinical supervision process?

RQ2: What are the perceived influences of incorporating Twitter in the clinical supervision process and professional development of teachers at secondary schools?

RQ3: How do secondary school level supervisors perceive the connection between clinical supervision incorporating Twitter and student achievement in the classroom?

RQ4: How do perceptions of secondary school level supervisors regarding using Twitter in clinical supervision influence their likelihood to use Twitter professionally?

In this chapter, I review the purpose of the study and the research questions. I identify the setting and demographics of participants. Then, I outline the process of data collection and provide an analysis of the data. Finally, I show evidence of trustworthiness and conclude with the results of the study and its alignment with the research questions.

Setting

This qualitative study included 10 level supervisors from 14 secondary schools in Guyana. This was valuable to the study as supervisors from these schools were exposed

to clinical supervision and Twitter for professional development. Participants were interviewed at my office and a community center. Study data collected allowed for deep insights into the reactions of participants related to clinical supervision incorporating Twitter. No internet access at a school and the failure of one participant to complete follow-up tasks from the Twitter workshop, could have affected level supervisors' responses. Nonetheless, study data did not reflect this definitively. Secondary school level supervisors were asked and have given their perceptions of the blended approach to supervision as indicated in Chapter 3 and not whether they had implemented the blended approach. Further research may be needed regarding the influence of connectivity at schools and teachers use of online support for pedagogy.

Demographics

According to participant demographics, secondary level supervisors worked full time at the secondary schools, supervising core subject teachers from levels 7 to 9, and understood of the use of Twitter and Cogan's clinical supervision model. At the time of the study, supervisors from 14 secondary schools in Guyana were knowledgeable regarding clinical supervision and the use of Twitter for professional development. All participants were from secondary schools in urban areas. Participants varied in terms of years of teaching experience and years as level supervisors. Years of experience ranged from 1 year to more than 10 years while teaching experience ranged from 6 years to 23 years. Also, some participants mentioned their subject area of specialization (see Table 1).

Table 1

Demographics of Participants

Participant (pseudonym)	Grade Level	Years Teaching Experience	Years Supervising Experience	Discipline
Abram	9	23	10+	Math
Abenna	7	6	1	Did not say
Adam	7	8	3	Social Studies
Adele	8	8	3	English
Adeola	7	10	4	English
Amrita	9	12	6	Did not say
Annie	9	16	10	Science
Anthony	9	15	8	Math
Arlene	8	15	7	Did not say
Azalea	8	9	4	English

Data Collection**Participants**

The intent of this study was to gather data regarding the perceptions of secondary school level supervisors involving incorporating Twitter into the clinical supervision process. A list of 30 level supervisors from 14 secondary schools provided by the Ministry of Education was used to identify level supervisors. All 30 supervisors were contacted. Potential participants on the list with email contacts were sent to 12 participants via emails that included an explanation of the study. The remaining 18 were contacted via telephone. Again, potential participants were explained the study. Twelve potential participants agreed to participate and interviews were scheduled on a case-by-

case basis to allow for individual analysis. No other level supervisors were contacted again as I intended to have 10 participants. The initial number of level supervisors who agreed to participate was 12. Of the 12 potential participants, interviews were scheduled with 10. Each participant was given a pseudonym, a name beginning with A (see Table 1). Responses for each participant were analyzed independently rather than considering them all together. Interviews for the remaining two potential participants were not reconfirmed and scheduled as data collected from 10 participants provided code and thematic saturation and scheduling with participants proved to be difficult.

Data Collection Instrument

For this study, data were collected using a face-to-face interview protocol (see Appendix A) over a period of eight nonconsecutive weeks. Interviews were scheduled for no more than an hour. Actual interviews ranged from 40 minutes to 55 minutes. Seven interviews were conducted in my office and the remaining three at a community center. Interviews were recorded using a voice recorder and transcribed verbatim manually. After 1 to 2 weeks following the analysis, copies were given to participants for clarification and correction. No calls for changes were made.

Variations in Data Collection Plan

There was a slight variation in the participant selection process. The preferred method of inviting and scheduling interviews with potential participants was via email, but only 12 out of 30 on the list had email contacts. All 12 were invited to participate by email and three responded positively. The other 18 potential participants were then contacted by telephone and nine agreed to participate. Of the 12 potential participants,

two did not follow through with interviews. However, all 10 participants signed the written consent form at the time of interviews and were given a copy. At the time of study, no unusual circumstances were found.

Data Analysis

After each interview recording, data were transcribed by me to the letter and verified for accuracy. At first, data were pre-coded using a priori coding from the conceptual framework, my research questions, and the literature review. I also coded using concepts and ideas that emerged during the data collection process. From the concepts of connectivism and clinical supervision, I identified codes such as collaboration, use of technology, clinical supervision versus traditional supervision, and applicability/relevance. I also pre-coded using concepts from my research questions and literature review. These codes included blended professional development and professional growth. Later, five more codes emerged from concepts and ideas that were repeated during the interview analysis. These codes included peer sharing, access, global village/social connection, choice, and feedback (see Table 2). Primarily, descriptive coding was done. Then, data were arranged into a more organized and systematic manner for subsequent analysis.

Table 2

Codes with Participants' Account

	Code	Explanation
A priori code Conceptual lens - connectivism/clinical supervision	clinical supervision vs traditional supervision	Observation of immediate feedback vs little to no feedback; feeling at ease vs under a microscope

(table continues)

	collaboration Use of technology applicability/ relevance	No one person is the authority, ideas are shared To network with experts in the field; not confined to one space; readily available Individual needs are met, personalized instruction
literature review and research questions)	blended professional development professional growth	Using Face-to-face and online support to collaborate on best practices Using online support for classroom instruction and management
Emergent codes	peer sharing access global village/social connection choice feedback	Using Twitter to connect and share Online support readily available but not always accessible. Observation of learning experiences; experiences outside of participants' realm Not confined to one space Receiving information in a timely manner

Codes often provide the evidence to support the basis for analysis of data. I used pre-coding to consider how the priori concepts may help to provide answers to my research questions. While pre-coding provided a broad perspective of my inquiry, it did not provide enough information to give a full analysis and in-depth understanding of each of my research questions. I then identified further codes by reviewing the interview data and looking for at least three occurrences of the same expression or idea. Emergent and a-

priori codes that were common among the majority of the participants (more than 5), as well as those shared by a few (between 3 to 5), were treated as relevant to the study (see table 2). After all transcripts were coded, a color coding system was employed. For example, for participants' responses to their experience with supervision at their school a color was applied to that section of the transcript. This made it easier to categorize individual exact responses. After completing this process, I reviewed the transcripts again to identify for patterns related to the existing codes and my research questions. Color coding made for easy organization and identification of patterns that eventually formed the themes that allowed me to link common answers to specific research questions (see Table 3).

Table 3.

Research Questions, Themes, and Quotes Related to Participants' Perceptions of Clinical Supervision Incorporating Twitter

Research Questions	Themes	Responses	Relevant Quotes
1	Collaborative supervision	10	<p>"Unlike traditional supervision the teacher gets a say in the supervision process and with online support one can only benefit more, more scope ..." (Adam).</p> <p>"However, with clinical supervision it's different, it's more collaborative, there is cooperation. I am there to support my teachers not to pull them down. Incorporating Twitter would further give support to the process" (Annie).</p>
	Individualized experience		<p>"it is unique to the teacher. The process is designed for that particular teacher. The teacher identifies his or her area of focus and we both work on that particular area. I think individual needs are met this way." (Adam).</p> <p>"..... this approach is not a one size fit all. We can't paint everybody with the same brush" (Azalea).</p>

(table continues)

	Time consuming		<p>“Clinical supervision incorporating Twitter can be useful in supervising teachers but I wouldn’t lie, the clinical supervision part it is time consuming” (Adele).</p> <p>“... It is important but time... “(Anthony).</p> <p>“I do try to do my job but time, time” (Adeola).</p>
2	Professional growth	9	<p>“Both clinical supervision and online support would ensure timely response, so supervisors and teachers can make adjustments, you know, be up to date” (Abram).</p>
	Establishing Community	6	<p>“Professional development activities always help the teacher to grow, regardless of whether you are a novice or old in the business” (Arlene).</p> <p>“This new approach to supervision allows for comradery between my teachers and I and even other teachers that join in the conversation. We get to share our views and experiences. We kind of developed a professional relationship” (Abenna).</p>
	Improving classroom management	4	<p>“Social media could help me connect with experts in the field; regionally and internationally. . I could be in the comfort of my home and connect and relate, you know, share experiences with peers and others” (Anthony).</p>
3	Improving classroom instruction	9	<p>“Teachers could only get better and better, as they learn they would change strategy to reflect their learning experiences. This will transfer to their classroom and how they manage...” (Abram).</p>
	Positive student behavior and student achievement	4 & 10	<p>“Supervision is to help you improve your teaching qualities and eventually your instruction. Since I am exposed to quality instruction it means that my students will also be exposed to quality instruction” (Adam).</p> <p>“With clinical supervision incorporating Twitter the teacher could make that change to his or her teaching quality almost immediately. When teachers improve so would their students” (Azalea).</p> <p>“... my teachers are exposed to different ideas and so they apply those same principles in their classroom. Instruction is improved and the students have a good thing going” (Anthony).</p>
4	Use of technology	10	<p>“I used technology before but not for educational purposes but now I see the benefits” (Anthony).</p>

(table continues)

		<p>“Since my training, I try to use it but I am a bit skeptical. I am not sure about the Ministry’s policy on using technology in the classroom. I don’t want a problem with any one. But yes I would definitely use it. I am interested” (Arlene).</p>
Access	3	<p>We don’t have internet at school and sometimes I get so busy I don’t get a chance to use it at home but from the training I received I think it is important. So access may be a problem but at the moment we are not required to implement this activity. Access to the internet is important. Our training would be to naught if we don’t have access. (Adeola)</p> <p>“Being connected at school and home, my staff and I have been able to practice aspects of what we were exposed to” (Azalea).</p>
Lack of Follow-up	6	<p>Clinical supervision incorporating Twitter could help to improve student learning but the Ministry of Education got to insist that we follow it. If a policy is out mandating us to use this approach, then those who like to resist change will have to comply. You know, sometimes you have to demand of your teachers if you want to see progress. Ministry has to do something. (Azalea)</p> <p>We received training but yet to implement. I know that it can be time consuming but people must be interested. So we have to have something in place to implement it so it doesn’t die a death. What’s the use of receiving training and you do nothing with it? (Adeola)</p>

I applied codes to the transcript of the interviews which indicated categories and themes relating to the research questions for this study (see table 4). As described earlier, codes were identified from participants’ interviews by a priori and emergent methods (see table 2). I further analysed these codes for similarity in meaning or intent. Following my analysis of these codes, the codes were further grouped into more conceptual categories to find answers to my research questions: collaborative supervision, individualized

experience, time consuming, professional growth, establishing community, improving classroom management, improving classroom instruction, positive student behavior, student achievement, use of technology, access, and lack of follow-up. From these categories, I then ensued to detect themes centered around my research questions.

Analyzing the codes and categories relevant to each research question allowed me to detect that the categories reflected the themes.

Table 4

Codes, Categories, and Themes Related to Research Questions

Code	Category/Theme	Research Question
Clinical supervision Traditional supervision Collaboration Applicability/ Relevance Time	Collaborative supervision Individualized experience Time consuming	RQ1
Professional growth Global village Social connection Peer sharing	Professional growth Establishing Community Improving classroom management	RQ2
Blended professional development Use of technology Access Choice Feedback	Improving classroom instruction Positive student behavior Student achievement Use of technology Access Lack of follow-up	RQ3 RQ4

Further, for each research question, I identified relating themes, corresponded examples from participants' transcripts, and gave an interpretation of the themes. The first research question addressed the perceptions of secondary school level supervisors on

the use of the social media tool Twitter for collaborating with teachers in the clinical supervision process. After reviewing codes and patterns, the following themes emerged: collaborative supervision, individualized experience, and time consuming. RQ2 focused on the participants' perceived influence of incorporating Twitter in the clinical supervision process and professional development of teachers at secondary schools. The participants reflected on the value of using the social media tool Twitter for professional development. Participants noted the potential benefits that aligned with the following themes: professional growth, establishing community, and improving classroom management. Challenges of time and the possible difficulty with the newness of the approach were also highlighted.

Further, RQ3 focused on how secondary school level supervisors perceive the connection of clinical supervision incorporating Twitter and student achievement in the classroom. Participants noted the possible connection between clinical supervision incorporating Twitter and student achievement. The themes that emerged were: improving classroom instruction, positive student behavior, and student achievement. Finally, RQ4 addressed the likelihood of secondary school level supervisors using the collaborative tool Twitter in clinical supervision professionally. Participants expressed their thoughts on the possible benefits and challenges of incorporating online support into professional development activities. During the discussions, the following themes emerged: use of technology, access, and lack of follow-up.

Discrepant Cases

There was one instance when a participant noted experiences related directly to her school in terms of other schools getting preferential treatment. For example, one supervisor mentioned that her school was the only school within that particular cluster that did not experience connectivity. This challenge may necessitate further study. In chapter five, suggestions for further studies are justified. Nonetheless, as specified in chapter 3, this study used purposeful sampling to select participants who were level supervisors at secondary schools and exposed to the clinical supervision model and the use of Twitter.

Evidence of Trustworthiness

Credibility

The process of my study assured findings were unaffected with peer debriefing, member check, and reflexive journaling. During the course of this study, I used peer debriefing where my dissertation committee, my colleagues, and two other experts in the field provided scholarly guidance. For instance, my data collection tool was assessed for relevance, alignment, and clarity. Their feedback helped to improve the standard of my research as concepts from the theoretical framework of this study, the study design, and the literature review formed the basis for the questions. For member checking, approximately 3 weeks after collecting data participants were given the opportunity to individually review draft copies of the analysis of data to check for accuracy and to recommend changes. I encouraged participants to be honest and open with their feedback. After careful review, all participants felt that their perceptions and feelings were

captured. No changes were recommended. Entries of my thoughts from my reflexive journal before and after data collection were considered for possible biases. These steps helped the research study to be credible.

Transferability

For transferability, my conceptual framework, purposeful sampling, and rich descriptions were used. The conceptual framework provided the context for the purpose, the research design, and the data collection procedure of my study. The participant selection procedure allowed for the best suited individuals to give in-depth information on the phenomenon under study. This way, supervisors who were directly involved were selected to participate. Further, a thorough account of the perceptions of participants was given. Additionally, an audit trail that includes notes from the interviews, notes from my analysis of the data, my reflexive journaling along with a detailed account of the study methodology provided rich descriptions that would allow other researchers to repeat the study in comparable situations in other environments.

Dependability

For dependability, I have provided an audit trail and member check as mentioned above. Audit trailing is needed during the study to recognize biases. Every decision I made and every action is accounted for. Notes from the interviews, notes from data analysis, and my reflexive journal entries are available for reference. Since there was no research on clinical supervision incorporating Twitter, the reiteration of my research purpose and design was necessary which would allow for easy replication.

Confirmability

Again, for confirmability, I have employed a sound audit trail and reflexive journaling. My reflexive journal reflects all events and activities as they unfolded. This includes information on the inquiry process, my position, and views of the phenomenon under study. The audit trail detailed the procedure of this study including coding, identifying themes, and relating themes to research questions. Keeping strictly to the research methodology also ensured confirmability.

Results

Clinical supervision incorporating Twitter represented a gap in the literature, and the aim of this qualitative study was to provide research of an alternative to professional development activities that offered collegial, consultative supervision and online support. The combination of clinical supervision and the use of Twitter provided a guide for a blended approach to professional development (see Figure 1). Clinical supervision is a five step model that allows the teachers to look reflectively on their teaching practices and simultaneously manage their own learning and their professional growth. On the other hand, through connectivism opportunities for collaboration in the learning process were presented. For this study, Cogan's model of clinical supervision and Siemens' theory of connectivism were applicable.

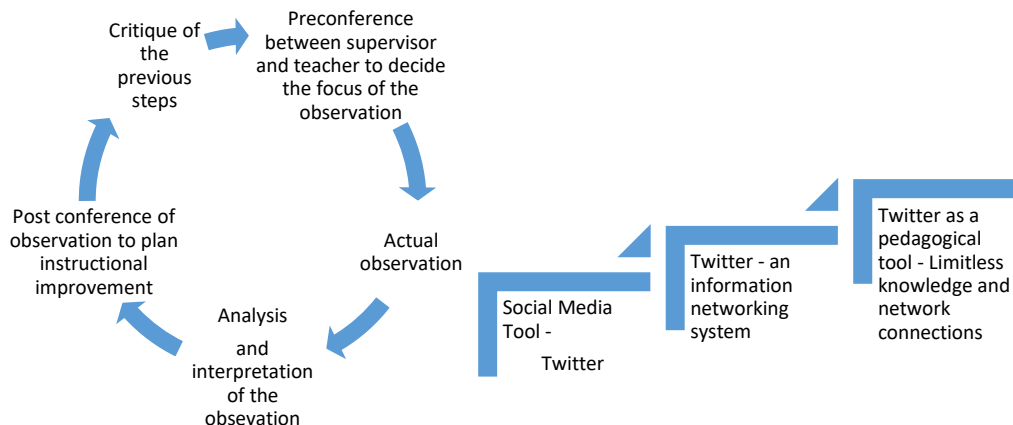


Figure 1. Clinical supervision incorporating Twitter for professional development.

The results of this study are organized by research questions and relating themes that developed from the analysis of interview data. Excerpts from the interviews were recorded and labeled with pseudonyms beginning with A. Themes were derived from participants with common experiences. Codes that were common to most of the participants, as well as those shared by a few, provided the basis for the themes. For each question, I present the themes developed and discuss the experiences of the participants. The following questions were explored to study the perceptions of level supervisors on clinical supervision incorporating Twitter.

RQ1: What are the perceptions of secondary school level supervisors regarding the use of Twitter for collaborating with teachers during the clinical supervision process?

It was necessary to find out how participants perceived the use of the social media tool Twitter for collaborating with teachers in the clinical supervision process. Themes, derived from the analysis of the data, were the perceptions of participants of the collaborative nature of supervision, the individualized experience, and how time consuming the process could be. Collaborative supervision and individualized experience

were of importance to supervisors unlike that of traditional supervision which they see as being administrative. The following participants shared their views on the use of Twitter incorporated in the clinical supervision process.

Collaborative Supervision

Data indicated that all 10 participants noted that Twitter could be used for collaborating with teachers in the clinical supervision process. All participants indicated to the collaborative and supportive nature of clinical supervision incorporating Twitter which allows for peer sharing and teacher involvement in the supervision process. Adam said, “Unlike traditional supervision the teacher gets a say in the supervision process and with online support one can only benefit more, more scope, open up my horizon. Clinical supervision is not like when they come in and criticize you.” Abenna said, “Knowing that we are working together makes me feel free to ask questions and to allow the teacher to ask questions too. It is not a one man show and with Twitter the opportunities for collaborating and sharing are endless.”

Anthony said:

I can share and receive information with colleagues in my school as well as out in the region. Before, sometimes we got no feedback, you never knew how you were doing. Clinical supervision gives immediate feedback. You get that support and I believe that using this Twitter could do the same. After completing the clinical supervision cycle, we can have a discussion of findings on Twitter and provoke the views of others.

Annie said:

When I first became a level supervisor, I did not know what to do. I was just thrust into the position not knowing what to do and I could only do what my supervisors did. I took out my checklist and did my thing. However, with clinical supervision it's different, it's more collaborative, there is cooperation. I am there to support my teachers not to pull them down. Incorporating Twitter would further give support to the process.

Participants also observed the role of Twitter in the supervision process. They expanded to include Twitter into the clinical supervision process. Adam said, "one can only benefit more, more scope, open up my horizon." Arlene said:

my teachers could update me and I could do the same in real time. There are so many opportunities using Twitter. For example, if I want to hear others' views on a particular issue I can tweet something and others could join so you see things from different, unlimited perspectives and we don't have to wait a long time for a response.

Azalea said:

When we connect we share information. I am not the only one with knowledge. I do not know everything so I am not going to pretend. My teachers could help me just as much as I help them. Other persons out there too. We could see how other teachers teach and borrow those strategies.

From the supervisors' observation, Siemens' theory of connectivism was evident.

Participants observed that with clinical supervision incorporating Twitter no one person was the authority of knowledge and that through connections learning can take place in and outside the classroom.

Individualized Experience

Apart from the newness of clinical supervision incorporating Twitter, seven participants were cognizant of the individualized experience that was possible in using the innovative blended approach to supervision. Adam said:

It is unique to the teacher. The process is designed for that particular teacher. The teacher identifies his or her area of focus and we both work on that particular area. I think individual needs are met this way. It would be amiss of me to evaluate a teacher based on another teacher or something. I mean, we do have our standards, but it is flexible to allow for that individualness.

While Adam commented on the novelty of clinical supervision incorporating Twitter and its ability to cater to individual needs, Amrita and Azalea expressed similar views.

Amrita said:

Not only do teachers get to decide on the focus of the supervision, but they also get a chance to start the tweet and lead the discussions without someone judging them. I have been through clinical supervision but not with an online aspect. This is new we have never done anything like this. I know social media can be used to help the teacher deal with their particular issue. Including it in the supervision process is good.

Azalea said, “this approach is not a one size fit all. We can’t paint everybody with the same brush.”

Time-Consuming

While all participants noted the benefits of collaborating in supervision, four out of the ten participants felt that it was too time consuming. Adele explained:

Clinical supervision incorporating Twitter can be useful in supervising teachers. I wouldn’t lie, the clinical supervision part it is time consuming; but it is worth the while. I wouldn’t let my teachers see it as negative, you know. They must see the amount of effort that is needed to be effective teachers.

Anthony said:

I don’t do the clinical supervision as I should. It is important but time. It takes a lot of time. I have several teachers and to go through each stage takes time. I still have my own classes to teach. You see, it isn’t always possible to have it as often as required. It’s a lot of work but it’s a challenge that I would have to overcome.

Adeola said, “I do try to do my job but time, time. We still have to do it. Teachers must know why we have to do it; how important it is to the education system.” Despite the challenge of the amount of time clinical supervision incorporating Twitter may take, the participants were not discouraged from using this approach to supervision but saw it as an opportunity to show their teachers the energy that is expended into being master teachers. Nonetheless, the themes support research question 1 as participants indicated the potentials of clinical supervision incorporating Twitter for collaborating with teachers for instructional supervision.

RQ2: What are the perceived influences of incorporating Twitter in the clinical supervision process and professional development of teachers at secondary schools?

Opportunities for professional development through clinical supervision incorporating Twitter were evident. As participants reflected, professional growth, established community, and classroom management were themes that emerged as of importance.

Professional Growth

In the discussions, nine participants recognized professional growth as a result of the blended approach to instructional supervision. Participants noted that teachers are exposed to new resources and best practices in education regardless of the teaching experience of the teacher. Moreover, supervision of instruction as observed by participants often inspires professional development. Teachers work on their weaknesses with an aim to improve. However, such activities were not without their challenges.

Abram explained:

Both clinical supervision and online support would ensure timely response, so supervisors and teachers can make adjustments, you know, be up to date.

With clinical supervision feedback is immediate. This means you can change, correct your mistakes by the next lesson. You just have to keep at it.

Arlene said:

Professional development activities always help the teacher to grow, regardless of whether you are a novice or old in the business. These activities keep us teachers very relevant in the profession. Now with Twitter, that's a new thing but that's where education is going, we don't want to be left behind. Using the technology,

but we have to use it because that is a challenge by itself It can help us to grow personally and professionally.

Adele said:

As teachers refine the knowledge and skills and as they learn new things and incorporate they can get more creative and critical in their thinking, but of course it isn't always easy but that's why we have to collaborate, talk with others, share ideas. That's why clinical supervision and Twitter can work. This way teachers would grow. They would now be able to be actively involved instead of being passive. They get a chance to be their own judge and jury. As I said before, it isn't easy but it's doable.

Annie said:

Doing something for the first time can be difficult. People are often afraid of change, you know, to try new things and with technology especially with the older teachers some young ones, too. There is that fear. You have to see the good in it.

The aim is to improve teachers' weaknesses.

Participants noted that the innovativeness of the blended approach by itself could be challenging but if the process is consistent participants stand to benefit regardless of teaching experience.

Establishing Community

Participants identified the social media tool Twitter as a means of creating community. Six out of the ten supervisors felt that using Twitter provided a global perspective that could help them and their teachers, that they otherwise may not have got, in

the classroom. Supervisors who used Twitter noted that they were able to pull out teachers from their comfort zone and have the teachers actually use the tool. Anthony noted that as the teachers used Twitter the more they wanted to use it. Donelan (2016) said that the more you use technology the more you want to use it. Azalea said:

I use Twitter but not regularly. After receiving training, I wanted to try out so I initiated the first tweet on incorporating ICTs into classroom instruction. I insisted that my teachers contribute. The response was overwhelming. They started to post but you know the follow through isn't always there. We have a group and every now and then we tweet something. But my teachers and I know the value.

Abenna said, "This new approach to supervision allows for comradery between my teachers and me and even other teachers that join in the conversation. We get to share our views and experiences. We kind of developed a professional relationship."

Anthony said, "Social media could help me connect with experts in the field; regionally and internationally. I could be in the comfort of my home and connect and relate, you know, share experiences with peers and others." Participants' expectations of a blended approach to supervision for global connection were quite evident.

Improving Classroom Management

Supervision of instruction, as observed by four participants, often inspires professional growth and development. Teachers are kept current with learning resources and best teaching methods that may influence the way teachers manage their classrooms. Teachers are now responsible for their development. Abenna explained:

Being supervised will be beneficial in terms of classroom management and instruction, the new experiences. With the new experiences, teachers are expected to make that shift. Classroom management should improve. After all they would have been equipped with the necessary knowledge and skills. When we benefit the teachers and ultimately the students benefit as well.

Abram said:

Teachers could only get better and better, as they learn they would change strategy to reflect their learning experiences. This will transfer to their classroom and how they manage. Teachers being exposed to clinical supervision incorporating Twitter are now responsible for their own development. For example, how they manage their classroom, the quality of instruction and so on.

Azalea said:

We can't run away from it; supervision is necessary; it is the way. But this is something new so we have to get others to buy in, embrace it and you'll see how teachers would grow and develop and by extension their students. Students are a reflection of their teachers. So as we improve and our teachers improve so would the way we manage our classrooms.

Participants are aware of the inherent strength of professional development activities incorporating online support to the teaching learning process despite the challenges newness and change may bring. Participants recognized the relationship between clinical supervision incorporating Twitter and the professional development of the teacher, thus answering RQ3 and attesting to the clinical supervision incorporating Twitter model. It

was evident that the participants were willing to explore the blended approach to supervision participants after being exposed to both traditional and collaborative supervision. Being able to self-direct and being responsible for their own learning were reasons for supervisors wanting to use the blended approach to supervision.

RQ3: How do secondary school level supervisors perceive the connection between clinical supervision incorporating Twitter and student achievement in the classroom?

Again, to answer this question it was necessary to find out how participants perceived the connection of clinical supervision incorporating Twitter and student achievement.

Themes derived from the analysis of the data indicated that improving classroom instruction and positive student behavior and student achievement may be as an account of the blended approach to supervision of instruction as noted by all ten participants. Data indicated that clinical supervision incorporating Twitter can influence student achievement in the classroom thus confirming the framework of this study.

Improving Classroom Instruction

Participants expressed the change in behavior that may result being exposed to the clinical supervision incorporating Twitter model. Abenna said:

Being supervised will be beneficial in terms of classroom management and instruction, the new experiences. The new learning experiences teachers will apply to the way they teach. So my job is to ensure that those whom I supervise are fully prepared to channel best practices and deal with challenges in the classroom. In my time, I didn't have this kind of support from my supervisors.

Adam said:

Supervision is to help you improve your teaching qualities and eventually your instruction. Since I am exposed to quality instruction it means that my students will also be exposed to quality instruction. So definitely there is a connection between supervision and classroom instruction. Plus, social media is no stranger to students and it also has its educational benefits, so if teachers could find a way to incorporate it into their teaching, as we did and we were successful, I don't see why their instruction and their students won't be successful as well.

Apart from providing teachers with new experiences from the clinical supervision incorporating Twitter model, all 10 participants felt that teachers could now use this blended approach to provide a new outlook for improving their classroom instruction. Supervisors acknowledged that this model could be instrumental in the teaching learning process.

Positive Student Behavior and Student Achievement

All 10 participants saw a connection between clinical supervision incorporating Twitter and student achievement with four taking the position that this approach could have a cumulative effect resulting in positive student behavior and achievement. Azalea explained:

With clinical supervision incorporating Twitter the teacher could make that change to his or her teaching quality almost immediately. When teachers improve so would their students. I am using Twitter. I encourage my students to do the same, just to get them to see other purposes of social media. Almost all of them have

some social media account. They had fun when we did. I try to practice what I would like my teachers to do. If teachers can see the benefits not only to them but to the students as well.

Anthony said:

Although I don't do it regularly, when my teachers and I go through the clinical supervision incorporating Twitter process, my teachers are exposed to different ideas. They apply those same principles in their classrooms. Instruction is improved and the students have a good thing going. I see more participation in the class.

Abram said, "The students already know about technology; we just need to guide them in the right direction. If we were to incorporate technology into our instruction I am almost sure it can bring about a change." Adeola said:

Since student learning is a reflection of the teacher, I only see improvement for the students. As the teachers learn and develop, I believe the students would learn and develop too. I try to make my learning applicable to what I do with the student. Through supervision my teachers would be able to do so as well. There is definitely a link between supervision and student achievement, especially when instructions are in keeping with diversity, able to meet each student. Instruction is now student centered.

Reflecting on RQ2 and RQ3, there was a relationship between the themes of professional growth, improving classroom management, and improving classroom instruction. Data indicated that supervisors believed that as teachers develop and grow

professionally so would their skills in classroom management and instruction leading to student achievement (see Figure 2). These themes provided answers to how secondary school level supervisors perceive the connection of clinical supervision incorporating Twitter and student achievement. The participants took this position from making comparisons with their previous and current experiences with supervision. In answering research question 3, all participants viewed clinical supervision incorporating Twitter as a catalyst for teacher growth and ultimately student achievement.

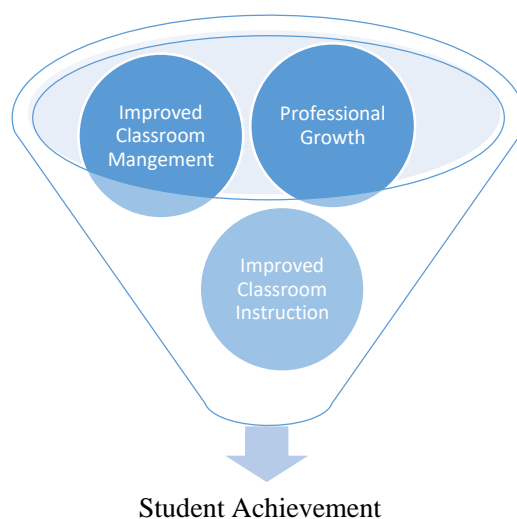


Figure 2. Relationship among professional growth, improving classroom management, and classroom instruction leading to student learning.

RQ4: How do the perceptions of secondary school level supervisors regarding using Twitter in clinical supervision influence their likelihood to use Twitter professionally?

To answer this question, it became necessary to find out how likely were participants to use Twitter for collaborating with teachers in the clinical supervision process. Themes

that derived from the analysis of the data included the use of technology, access, and lack of followup. Data indicated that despite challenges all ten participants undoubtedly recognized the role of technology personally and professionally. Participants discussed their views.

Use of Technology

Teachers learn how to use technology and use it for their professional gain. The discussions on the use of technology revealed a range of what it was used for and how often it was used. Anthony said:

I used technology before but not for educational purposes. Now I see the benefits. I am glad for the training to use Twitter. I use other social media but this one seems interesting. It is different from Facebook, anyway, I am trying with it. We need more practice though.

Amrita said, “The online part of the professional development activity is new to me. I think it’s very valuable to the teaching and learning process and have no problem using it professionally.” Arlene said, “Since my training, I try to use it but I am a bit skeptical. I am not sure about the Ministry’s policy on using technology in the classroom. I don’t want a problem with any one. But yes I would definitely use it. I am interested.” Adeola said, “Technology and I are not friends. I am getting problems using Twitter. I need more training. But I am not opposed to it. From my training I see the value.”

Although many expressed challenges with technology, this did not deter them from wanting to use it as all ten participants indicated their willingness to use Twitter

professionally. Participants detailed how their perceptions of technology have changed as a result of being exposed to the use of Twitter for pedagogy.

Access

Siemens (2005) posited that through connectedness within networks, opportunities are provided for teachers to develop their knowledge and instructional skills. Therefore, access to the global system of connection is of importance so said three participants. Azalea expressed, “Being connected at school and home, my staff and I have been able to practice aspects of what we were exposed to.” Participants also addressed the issue of not having access to technology. Adeola said:

We don't have internet at school. Sometimes I get so busy I don't get a chance to use it at home. From the training I received I think it is important. Also, the electricity can be so unreliable, you know. So access may be a problem but at the moment we are not required to implement this activity. But when we are, we need proper access. Access to the internet is important. Our training would be to naught if we don't have access.

Lack of Follow-up

The need for training and a definitive statement or pronouncement by the Ministry of Education Guyana is needed to reduce the negative views and resistance of teachers toward the use of technology as a pedagogical tool so said participants. Six participants noted the lack of follow-up with training received. Azalea said:

Clinical supervision incorporating Twitter could help to improve student learning but the Ministry of Education must insist that we follow it. If a policy is out

mandating us to use this approach, then those who like to resist change will have to comply. You know, sometimes you have to demand of your teachers if you want to see progress. Ministry has to do something.

Adeola said:

We received training but yet to implement. I know that it can be time consuming but people must be interested. So we have to have something in place to implement it so it doesn't die a death. What's the use of receiving training and you do nothing with it?

Anthony said, "This is something new so we need continuous training, especially with first time users, to alleviate the fear and anxiety and the negative views teachers have."

From the interview data, it was evident that all 10 participants recognized technology as an important tool for personal and professional growth. Participants understood their own limitations with technology and are cognizant of the challenges of the blended approach to supervision. Notwithstanding, participants are aware of what is needed to overcome their limitations and challenges. Participants' experiences with professional development activities and their need to be acquainted with the supervision process with an intent to be current was evident. The themes support RQ4 as participants indicated their willingness to use Twitter professionally after being exposed to the clinical supervision incorporating Twitter model of instructional supervision.

Summary

Schools having preferential treatment over another and not completing an assignment from a Twitter workshop as cited by a participant may have been the only

discrepant data. However, my study sought information on what supervisors thought about the clinical supervision incorporating Twitter model of instructional supervision. This is discussed further in Chapter 5. This study was guided by four research questions. Several themes ensued and data were analyzed relating themes to specific research questions.

For the RQ1, results showed that there were shared views among the supervisors on the use of Twitter for collaborating with teachers in the clinical supervision process. All participants noted the importance of collaborative supervision that allowed for peer sharing and teacher involvement and the role of Twitter in the learning process. Seven of the 10 participants noted the individualized experience one can have when using the clinical supervision incorporating the Twitter model of instructional supervision while four participants admitted that this model can be time consuming.

An exploration of RQ2 revealed that participants felt that clinical supervision incorporating Twitter may influence professional development of teachers. Nine participants acknowledged relationship to professional growth of the teacher regardless of the teaching experience of the teacher; novice or veteran. The participants also noted that teachers would be exposed to new learning resources and best practices in education. Six participants discussed possible establishment of learning communities which could enable them to have a global perspective on classroom management and instruction and the development of professional relationships. Four participants noted the possibility of improved classroom management clinical supervision incorporating Twitter could bring

to the learning process. All participants discussed the timely manner of feedback in the blended approach and also the ability of teachers to make a shift in perspective.

There were some achievements supervisors noted that can occur with regard to RQ3. Improving classroom instruction and student academic achievement were noted by all 10 participants with three out of the 10 expressing that positive student behavior can result with clinical supervision incorporating Twitter. With regard to RQ4, there were three areas, the use of technology, continuous professional development, and policy document that the supervisors commented. All participants acknowledged the benefits of using technology in the teaching and learning process despite challenges. Six participants stressed the lack of monitoring and continuous training of the professional development activity they were exposed to and the need for policy document to support such professional development activities. Also, access to this internet was identified by three participants. Notably, despite the challenges and concerns, no participant had an aversion to the use of clinical supervision incorporating Twitter.

In Chapter 5, I will further discuss the interpretation of my findings. I will discuss the limitations of the study and provide recommendations for future research. The implications of my study for positive social change when Twitter is incorporated into the clinical supervision process are also discussed.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this qualitative study was to explore the perceptions of secondary school level supervisors in Guyana regarding the use of Twitter for collaborating with teachers in the clinical supervision process. The goal of this study was to address the existing gap in research involving incorporating Twitter into the clinical supervision process. This study provided a deeper understanding of the effects of the blended approach to supervision of instruction as expressed by secondary school level supervisors. Major themes developed for this study included: collaborative supervision, individualized experience, professional growth, establishing community, improving classroom management, improving classroom instruction, student achievement, and use of technology.

Thematic analysis revealed the relationship among themes which helped to give rich descriptions of the data. Findings revealed that supervision of instruction motivated secondary school level supervisors to develop effective instruction and student learning. Apart from developing best practices, level supervisors viewed the new blended approach of incorporating Twitter into clinical supervision as a means of connecting, collaborating, and being relevant. Findings also revealed that supervisors expressed concerns about clinical supervision and the use of technology as expressed by earlier studies. However, level supervisors' concerns did not discourage them from using the blended approach to supervision of instruction.

Interpretation of the Findings

The use of the social media tool Twitter and clinical supervision for professional development over the past five years revealed several themes that included supervision of instruction, clinical supervision as a vehicle for change, technology, and blended professional development. The focus of this study was the use of Twitter for collaborating with teachers in the clinical supervision process. The findings of this study confirmed themes of time spending, access, and discomfort with technology of earlier research, thus extending knowledge in the field.

Supervision of Instruction

The theme supervision of instruction was important to the teaching and learning process. All 10 supervisors expressed that supervision is important. However, what was of importance to the supervisors that this new approach to supervision may bring was a form of supervision that is collaborative and supportive of instruction that improves teacher performance and ultimately student achievement. All supervisors noted this innovative blended approach to supervision as engaging and applicable to their situations.

Four secondary school level supervisors noted the challenges of time spending, access, and comfort with technology that may arise with the clinical supervision incorporating Twitter approach, but level supervisors did not see this as a deterrent. Instead, supervisors proffered possible solutions to what they believed were inherent challenges. They said that challenges of the length of time may be overcome by incorporating Twitter into clinical supervision, providing continuous training, and creating a policy document making this blended approach of supervision a requirement.

Since there is no known study involving how secondary school level supervisors perceive incorporating Twitter into the clinical supervision, findings from this study may add to literature.

Clinical Supervision as a Vehicle for Change

With clinical supervision, teachers are able to identify areas in their instruction where support is needed the most. This indicated that individual needs of secondary school teachers should be taken into consideration in the supervision process and the use of a prescribed checklist may not be quite appropriate. Mette et al., (2017) posited that instructional supervision offers continuing support for the professional growth and development and not evaluation of teachers' performance. Accordingly, supervision should be based on the present needs of the teacher. This belief was shared by the majority of the secondary school level supervisors.

Implications for change as a result of clinical supervision were evident in this study. Changes in classroom instruction regardless of teaching experience and student achievement were confirmed by the secondary school level supervisors. Apart from concurring with earlier studies (Bulunz et al., 2014; Langhorst, 2015; Nabhani et al., 2015; Farhat, 2016) regarding improving classroom instruction and student performance, six level supervisors further indicated that improvement in classroom management was possible. From their perspectives, secondary school level supervisors felt that being better able to improve instruction would help them to manage negative classroom behaviors and even be more proactive. Conversely, clinical supervision may demand more time and resources and the need for manageable size classes, specialist supervisors, and a properly

structured government management system. Only two of the four themes were apparent in my research. Participants of this study noted the question of time and the need for a policy document. Generally, supervisors confirmed the positive influence of clinical supervision during the teaching and learning process. However, supervisors' views varied regarding the use of technology for online support.

Technology for Online Support

From the perspective of supervisors, technology was the driving force for transformation in instructional practices. All participants noted the significant role of technology in education and said that using technology may be more effective than non-use of technology as learners are in the digital age. All secondary school level supervisors were exposed to Twitter, and they expressed a willingness to use it professionally. Six participants were enthused by opportunities for personal development and community building. However, only two supervisors incorporated Twitter into their clinical supervision process but only for a short period while two others used Twitter for purposes outside of clinical supervision.

Seechaliao (2014) posited that higher education lecturer thought social media brought value to teaching, and therefore could be useful for collaborative learning. Oakley and Pegrum (2015) argued that integrating digital technologies into instructional techniques could benefit higher education lecturers. Lecturers changed their practices considerably. Colwell and Hutchison (2018) posited that continuous use of Twitter could dispel initial anxiety. Preservice secondary content teachers saw the value in access to multiple educators and classroom resources. At the time of the study, most participants

had yet to use Twitter as a pedagogical tool. Notably, Anthony reflected on his teachers' excitement when using Twitter and wanted to continue to use it. The inability of supervisors of instruction to remain committed to the use of technology for instructional purposes without it being mandatory may be a cause for concern and necessitate research on motivation and engagement with social media.

Twitter for Professional Development

Social media tools are available, and learning leaders have been using them for professional growth and development and interaction with wider learning communities. Twitter developed into an information networking system that allowed users to contribute to online discussion. Bista (2015) reported that even though it was a first time experience for the participants with Twitter, Twitter provided space and opportunities for academic participation and also allowed for immediate feedback and sharing of information. Colwell and Hutchison (2018) said that preservice secondary content teachers recognized the value of Twitter in terms of access to experts in the field and classroom resources. My study revealed similar findings to Bista and Colwell and Hutchison's study results. The prospect of immediate feedback, limitless access to information, and collaboration among peers when using Twitter were stressed by all supervisors. Considering findings from my study and Bista and Colwell and Hutchison's studies, the opportunities for networking and exposure to global perspectives are limitless.

However, getting the supervisors to use twitter professionally was an issue. In accordance with the works of Donelan (2016) and Langhorst (2015), in my study it is possible that supervisors were struggling to incorporate Twitter into their instructional

practices because of negative views, deficiency in skills, and a lack of time. In fact, six supervisors' reasons for a lack of continued training and four supervisors' lack of time may have led to the almost nonexistence use of Twitter professionally and further incorporating it into the clinical supervision approach to supervision of instruction. Also, at the time of the study, a majority of the participants did not have e-mail contact and most seemed to be more comfortable using the telephone for contact. Level supervisors' being not familiar with technology indicated their need for continuous training for them and their teachers.

Blended Professional Development

Research has informed clinical supervision and Twitter separately. However, at the time of this study, there was no research on the use of Twitter for collaborating with teachers in the clinical supervision process. Antalek (2014) concluded that computer-based instructional approaches and technological professional learning opportunities should be a part of an educational institution. Almendarez-Cadena (2014) said that high school teachers needed flexible, hybrid technology-based professional development that combined online support and face-to-face training for their professional growth. Hea-Jin (2014) said that practices of Mathematics teachers changed toward a more learner centered instruction with the introduction of online support. All participants agreed that clinical supervision incorporating Twitter should be a part of the teaching learning process since it has potentials for professional development and improved classroom instruction.

Further, Hea-Jin (2014) posited that users need to be familiar with the

technology and that there should be agreement on the social media tool to be used, the topics for online discussion, and the objectives of the activity. Apart from being not quite at ease with Twitter, consensus on what should be the specific area or topic for discussion was not a theme of this research and may warrant further research. For this study, supervisors felt that this blended approach to supervision enhanced classroom instruction. Findings that combine clinical supervision with Twitter provide individualization, direct feedback, and application of new skills as posited by the majority of supervisors. Also, from the perspectives of supervisors, introducing Twitter to clinical supervision may have a very positive influence on teacher effectiveness and student achievement.

Conceptual Framework

Connectivism

The learning theory of connectivism as posited by Siemens shows how technology presents opportunities for collaboration in the learning process. Learning is no longer an internal, individualistic activity; information is from different sources and is acquired continuously. Of importance to Siemens was that learning takes place through connectiveness within networks. Through participants' perspectives, the very tenets of connectivism were pronounced.

The majority of participants noted that by being connected, opportunities were there for sharing of information with peers and experts in the field. Also, resources inside and outside the classroom are provided by being connected. Participants noted ways how Twitter could be used for collaboration between supervisors and teachers and between

teachers and teachers. Many networking of professionals using Twitter for collaboration was developed. Using Twitter in the supervision process allows the teachers to be actively involved and not supervisors being the single source of information. In effect, teachers would make the shift in their teaching practices and create a classroom environment where instruction reflects best practices.

Clinical Supervision Model

Within the discussions, participants preferred the clinical supervision model over traditional forms of supervision. All participants noted the non-judgmental but rather supportive nature of clinical supervision. Although four participants noted the amount of time that may be needed to make clinical supervision effective, they joined with the rest of the participants to expound how clinical supervision assesses the teaching practices of teachers collaboratively and allows for instructional improvement with the teachers taking ownership of their growth and development. This is the very principle of the clinical supervision model put forward by Cogan (1973) and advanced by earlier studies (Bulunz et al. 2014; Farhat, 2016; Nabhani et al., 2015;). Clinical supervision is grounded in the work of Morris Cogan (1973). The model is cyclical and has five manageable steps (see Figure 3).

Of importance is the possibility of teachers to look reflectively on their teaching practices and be accountable for their own learning and professional growth. To be able to reflect could inspire mutual standing and trust between supervisors and teachers (Nabhani et al., 2015) and expand the experiences of both teachers and supervisors. (Gürsoy et al., 2016). Likewise, supervisors felt that the clinical supervision brought a

reciprocal relationship between them and their teachers; not only would the teachers learn but they could also learn from the teachers. Supervisors confirmed with Cogan and earlier studies (Bulunz et al. 2014; Farhat, 2016; Nabhani et al., 2015), that such a self-directed and supportive environment, pertinent to both the beginner and experienced teacher, could open the door for improving instruction, classroom management, and academic experience for student. While the participants of this study established that this approach to supervision is the ideal, some participants noted that implementing and sustaining may be challenging.

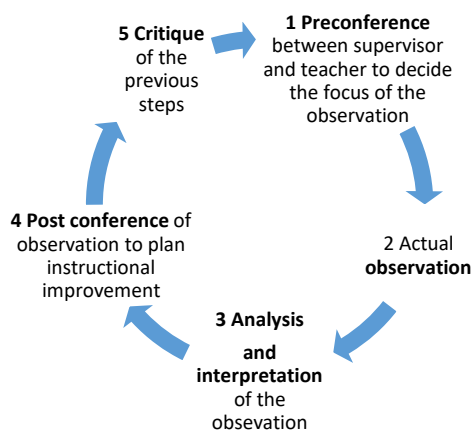


Figure 3. Clinical supervision model of Morris Cogan.

Limitations of the Study

This study was limited to secondary school level supervisors and their perceptions of using Twitter in their clinical supervision process. A total of 30 supervisors were invited by email and telephone to participate with ten completing the study. While ten participants provided data saturation, the specificity of this study population limits transferability to other populations and experiences. A larger sample size may have provided a more robust corroboration of possibly relevant codes. Next, secondary school

level supervisors are located in all ten regions in Guyana and could have presented some interviewing challenges. For example, the geography and topography of Guyana do not allow for easy access. Intrinsically, this may affect response rate. However, only secondary school level supervisors in one region were exposed to clinical supervision incorporating Twitter. While this removed the challenges of access and response rate, it limited the generalizability of my study to all secondary school level supervisors in Guyana. Further, this study ran the risk of subjectivity. My presence had the potential to affect the responses of participants during the interviews, thereby, limiting the generalizability of the study. However, the trustworthiness of this study was maintained by the research design and detailed plan of approach described in chapter 1. Also, details throughout the data collection, coding, and analysis stages maintained trustworthiness of this study.

Recommendations

While there is now a deeper understanding of how secondary school level supervisors perceived clinical supervision incorporating Twitter, secondary school level supervisors could benefit from further research focusing on effective training methods, motivation and engagement with social media for pedagogy, and technology for online support. Apart from these themes, the theme of policy document emerged. Though not common among all participants, exploring the need for policy document may require further study to fully comprehend the implications of this experience. Some participants noted that using the innovative blended approach to supervision of instruction was not mandatory. What was more, one participant mentioned to me that this was the first time

someone had enquired about how they viewed their workshop experiences. While not addressed by a majority of the participants, the concept of structured government management method confirmed the earlier study by Moswela and Mphale (2015) who posited the need for a structured system. More research would provide data relating to the value of policy document for implementation and management.

While not an overarching issue for this study, access to technology could be another area of study. Access to technology or the lack of was not a major theme of this study. However, a majority of participants were neither using Twitter personally nor professionally. Some saw it as not being a requirement. Given the role of technology in the teaching learning environment access to technology may influence the use of Twitter or social media on the whole, as a pedagogical tool. This study could be repeated with supervisors at schools with access to technology to provide additional information regarding the use of Twitter incorporated into the supervision process. In addition, understanding the potentials of the applied blended approach to supervision of instruction may lead to a rapid increase in communication and an abundance of choices.

Finally, an area worth considering is to focus on an application specific to subject area in preparing the topics of discussions/tweets for teachers to engage with during their clinical supervision incorporating Twitter process. Hea-Jin (2014) said that there should be agreement on the social media tool to be used, the topics for online discussion, and the objectives of the activity. These themes did not emerge in my study. Participants were from the different core subjects and were not clear on expectations after being exposed to the blended approach. Being specific to subject area and with transparent objectives may

be effective in helping teachers navigate in a technological world and justifies further study.

Implications

Positive Social Change

Social and professional interactions have been found to actively engage teachers in the teaching learning process (Arnell, 2014; Bulunz et al., 2014; Farhat, 2016; Johnson et al., 2016; Langhorst, 2015; Nabhani et al., 2015). Not only did teachers and supervisors benefit personally from the collaborative, digital literacy development, problem-solving and communication skills clinical supervision incorporating Twitter approach to supervision of instruction offered but can also apply those very skills immediately to their classroom instruction. Educational institutions have a responsibility to prepare learners to navigate in a global society and teachers who are culturally responsive. Findings of this study confirm how relevant incorporating Twitter into clinical supervision is for these skills. However, the supervision that usually pervades the education system seems to lack these skills as expressed by participants. The findings of this study provide direction for a collaborative, blended approach to supervision of instruction which allows for professional growth, innovative teaching practices to address needs of diverse learners in a rapidly changing society, and 21st century learners. The findings of this study have implications for positive social change at the individual, organizational, and societal levels.

The value of consultative and collaborative forms of supervision enjoy

extensive deliberation. Social media tools are accessible, and learning leaders have been using them for professional growth and interaction with wider learning communities (Carpenter, 2015; Donelan, 2016; Oakley & Pegrum, 2015; Seechaliao, 2014). Studies show that learning leaders tend to resist using social media for instructional purposes because of negative views, lack of skills, and a lack of time (Donelan, 2016; Farhat, 2016; Langhorst, 2015). Findings from this study showed that despite the lack of time, the need for more training, and the indecision of the legalities of the blended approach, all supervisors did see the value of the blended approach to supervision and still expressed a readiness to use Twitter for collaborating with teachers in the clinical supervision process. However, the challenges seem to have prevented most of the supervisors from implementing the blended approach. Accordingly, findings from this study justify the need for a structured government policy that promotes blended supervision of instruction.

Theoretical Implications

The findings of this study confirmed the principles of connectivism and clinical supervision of how supervisors perceived the use of the social media tool Twitter for collaborating with teachers in the clinical supervision process. The theory of connectivism is a theory that uses technology to connect learners to each other and to information. Siemens (2005) contended that learning occurs continually and from various sources; and through connections, learners collaborate and connect to the changes. Supervisors observed that technology provides online support for collaboration

among peers and for forming networks of experts. Technology creates sources of information outside of the classroom. Finally, supervisors observed that through connections transformation of learning institutions and teaching practices are facilitated.

The relationship between the clinical supervision model and collaborative supervision of instruction was also evident in this study. The clinical supervision model of Cogan uses collaborative conferences between supervisor and teacher to assess classroom instruction to inspire professional development. Results revealed that supervisors reconceptualized their roles and were more opened to consultations with teachers. Results of this study revealed that collaboration improved classroom instruction and learning opportunities for students. Clinical supervision is to help teachers improve instruction and student achievement while at the same time allowing supervisors to function as instructional facilitators and not administrators of teachers.

Recommendations for Practice

The method appropriate for best instructional designs was highlighted by supervisors as they shared their views on clinical supervision incorporating Twitter. Supervisors expressed the importance of supervision that provides opportunities for teachers to connect and collaborate to grow professionally, improve classroom instruction, and ultimately student performance. Supervisors noted that clinical supervision incorporating Twitter can help to connect teachers in ways not possible with traditional supervision. However, many participants have not yet tapped into the use of clinical supervision incorporating Twitter as a source of professional development. As

more research is conducted on online support and collaboration blended approach to instructional supervision should become more widely accepted.

Notwithstanding the differing views of participants on benefits and challenges of the blended approach to supervision, it did not take away from the potential influence of this approach. The blended approach as a community of practice which connects teachers is a significant feature of this research. Participants mused the value for the novice teacher as well as the veteran teacher. Clinical supervision incorporating Twitter is an approach that includes the knowledge and skills of both the supervisors and teachers in a collegial manner. Though the implementation of this approach may require time and more training, as expressed by some supervisors, it can be successful by creating more effective teachers. Effective teachers may provoke government to recognize participation in the blended approach as a condition for professional development. This may validate the use of the blended approach to supervision and lessen the negative views that may prevent teacher participation.

Conclusion

Consultative and collaborative forms of supervision along with the demand for skills to participate in a society driven by technology necessitated change in the preparedness of teachers. However, the education system in Guyana has not been able to keep current with the changes according to Monitoring, Evaluation, and Research Department's (2015) report. Most teachers experience traditional supervision of instruction that is more administrative and judgmental rather than collaborative supervision where teachers display improved knowledge and skills and where academic

experiences of students are enhanced (Bulunz et al., 2014; Gürsoy et al., 2016). Moreover, teachers avoid using social media tools for instructional purposes even though using social media tools may be an effective strategy for professional growth and development (Carpenter, 2015; Donelan, 2016; Oakley & Pegrum, 2015; Seechaliao, 2014). Arguably, collaborative supervision and the use of social media tools are not without negative reviews. Earlier studies pointed out the amount of time and resources needed (Farhat, 2016) the need for expert supervisors, manageable size classes, and properly structured government management systems (Moswela & Mphale, 2015) that needed to be injected to prevent schools from implementing collaborative supervision. Also, negative views, dearth of skills, and uneasiness with technology inhibit teachers from integrating social media tools into classroom instruction (Donelan, 2016; Langhorst, 2015).

The perceptions of secondary school level supervisors on the use of the social media tool Twitter for collaborating with teachers in the clinical supervision process put new lens on a blended approach to supervision. This study revealed that hybrid supervision of instruction enables supervisors to take responsibility for their own learning. Opportunities are provided for supervisors to connect and engage with peers and experts in the field, reflect and shift behaviors, and create their own learning experiences. Although concerns highlighted by earlier studies were evident in this study, participants did not perceive this approach to supervision as daunting. In fact, supervisors noted that when there is collaboration, there is improved classroom performance and improved learning opportunities for students.

A school ethos where continuous growth and development are entrenched in daily practice tends to lead to high student achievement. Clinical supervision incorporating Twitter allows supervisors to help teachers to be responsive to the exponential growth of knowledge. It also, improve their teaching practices to address the needs of the students.

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Appendix A: Interview Guide

Thank you for taking time out to meet with me. I am Paula Willis. I would like to talk about your experiences with clinical supervision and the use of the social media tool, Twitter. This would not take more than an hour. I will be audio taping as well as taking notes. Kindly be assured that responses will be confidential. You do not have to answer any question you do not want to and you can terminate this interview at any time. Do you have any questions about participating?

Interview Questions

- (a) How long have you been at this school?
- (b) Briefly describe your role in the teaching learning process.
 - How are you involved?
- (c) Tell me about your experience with supervision at this school.
 - What experiences have you had with clinical supervision?
 - How would you describe your experience with the clinical supervision process?
- (d) Since you have been exposed to the use of the social media tool Twitter, what are your views on the use of Twitter for collaborating in the clinical supervision process?
- (e) How do you characterize the working of clinical supervision incorporating Twitter on teacher professional development?
 - How would you describe possible challenges/opportunities using a blended approach?
 - How would you deal with these challenges/opportunities?

- What may be accomplished through this blended professional development?
- (f) How do you perceive the connection of clinical supervision using Twitter and student achievement?
- How do you perceive the connection of clinical supervision using Twitter and classroom instruction?
- (g) How likely are you to use the collaborative tool Twitter professionally? Explain.
- (h) Thank you for participating. Is there anything else you would like to say about blended professional development?

After analyzing this information I received from you, I would like to give you a copy for you to review for accuracy.

Thank you for participating.