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**Microblogging through Twitter for Developing
EFL Student Teachers' Critical Reading and
Summarization Skills**

By

Dr Mahmoud M.S. Abdallah

Associate Professor of Curriculum & English Language Instruction

Faculty of Education, Assiut University

Egypt

E-mail: msayed40@yahoo.com

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Abstract

Currently language learning is being facilitated by social networks and microblogging, which emerged as a quite new form of communication and content sharing through which users can publish online some small pieces of digital content. This relates to connectivism, a learning theory that views learning as the process of creating connections and expanding or increasing network complexity. While writing, EFL student teachers at Assiut University Faculty of Education always presented content that was full of redundancy and excessive elaboration. In addition, they demonstrated poor critical reading skills necessary for giving clear and comprehensive summaries of the linguistic content encountered online. Therefore, the present study aims at investigating the effect of microblogging through Twitter on developing those student teachers' critical reading and summarization skills. To accomplish this aim, a review of literature was made supported with some open interviews with EFL specialists to come out with a list of those critical reading skills (3 main skills and 18 sub-skills) and another list of those summarization skills (4 main skills and 24 sub-skills) needed by EFL student teachers. Accordingly, a pre-test on those skills was administered to a group of 50 EFL student teachers (research participants). Then, a microblogging model based on Twitter was experimented with participants for 5 weeks. Finally, a post-test on critical reading and summarization skills was administered to participants, and the means of scores were compared. Results indicated statistically significant differences between the participants' means of scores in both the pre and post-administration of the two tests, and thus microblogging through Twitter was found to be effective in developing EFL student teachers' critical reading and summarization skills. Based on these results, many suggestions and recommendations were presented.

Keywords: Microblogging, Twitter, Critical reading, Summarization skills

1. Introduction & Literature Review

Learning is no longer confined to formal institutions, situations or settings. It is currently approached as a flexible, networked process that might occur anywhere at any time supported by different means and modern devices. In other words, learning can happen informally; and hence, *informal learning* has become a significant aspect of our learning experience, and – in line with this - lifelong learning should be the target where context or ecology needs to be considered. In a knowledge economy, the capacity to form connections between sources of information, and thereby create useful information patterns, is required to learn. In this sense, the tools and employed technologies alter and rewire our brains, and subsequently change the way we think and learn (Driscoll, 2000; Siemens, 2005).

English language learning (ELL) has been greatly influenced by new web generations that have brought many interactive applications. These applications have been enabling free writing, meaningful participation and sharing linguistic knowledge with the whole world. In other words, the message can be easily conveyed to others, and immediate feedback on production has become possible. Moreover, they have been associated with the development of a wide range of learning constructs and instructional theories: e.g. *Connectivism*, *Dialogic Education*, *Web-based learning*, *Social Media Language Learning (SMLL)* and *Mobile-Assisted Language Learning (MALL)*.

Connectivism is the main theoretical framework guiding this research study. It is a quite new learning theory that proposes the existent of networks (i.e. nodes and links) that frame human knowledge acquisition. It views learning as the process of creating connections and expanding or increasing network complexity (Siemens, 2005). What is

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interesting about this theory is combining relevant elements of many learning theories to create a powerful theoretical construct for learning in the digital age (AlDahdouh, 2015). It recognises the internal processes of learning, but focuses more on the external world, especially digital networks, that continuously alters the person's knowledge and changes how they understand and manipulate content (Siemens, 2005). Thus, *connectivism* presents a model of learning that acknowledges the tectonic shifts in society where learning is no longer an internal, individualistic activity. How people work and function is altered when new tools are utilized.

In line with *connectivism*, mobile technologies have revolutionized the ways social networks can be used. On smart phones, for example, learners can easily access many applications (versions designed for tablets and smart phones). And because Twitter is accessible via mobile phones, tweets could be sent when students are 'walking in corridors,' 'in cars at the end of the teaching day' or 'during lunch breaks' (Wright, 2010: p. 10). Learners thus can use Twitter to share their personal reflections and write flexibly as if they are using a Pc.

Language learners are able to enhance their language skills due to the different avenues that new social media have created. Social media – as proved by many previous studies (e.g. Borau, et al., 2009; Cheng, 2012; Henderson, Snyder & Beale, 2013; Ahmed, 2015) - provides the learner with the possibility of participating in genuine, immediate and relevant online conversations, and practicing the target language while supported by experienced teachers and external audience.

Language acquisition – as indicated by research – is socially constructed and interactive by nature (Reinhardt & Zander, 2011; McClanahan, 2014). That is why SMLL has emerged to express interactive relationships between social media channels and language learning processes. This way, language learners are able to extend English practice beyond classroom boundaries. In their study, Henderson, Snyder and Beale (2013) conclude that social media - especially when used for collaborative purposes - is best utilised when: (a) it does not repeat ongoing practices, but offer something new; (b) strategies are there to support students' collaborative work; and (c) the tasks are appropriate.

Thus, online tools in general and social networks in particular can be used to foster collaborative language learning and critical/reflective thinking, and open a dialogue through which students can learn from (and with) each other (Hamidon, et al, 2013; Phillipson & Wegerif, 2017). Twitter - as a microblogging tool - makes communication even faster by saving much time and reducing users' mental effort required for generating content (Finin & Tseng, 2007).

With microblogs like Tumblr and Twitter, *microblogging* emerged as a quite new form of communication and content sharing through which users can publish online some small pieces of digital content (i.e. text, pictures, links and short videos) (Starbird et al., 2010). They can also describe their current status in short posts distributed by instant messages, smart phones, email or Web 2.0 tools. Originally, Blogs developed as a free Web 2.0 application that helped users with reflective writing and global, cross-cultural communication by easily publishing online their personal accounts. Sharing personal reflections, ideas, viewpoints and useful tips has been the main purpose of Blogging.

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As with traditional blogging, microbloggers usually post about topics ranging from the simple, personal ones - such as 'what I'm doing right now,' - to the more thematic and/or scientific ones (Ebner & Schiefner, 2008). However, microblogging is more about posting updates, ideas or simply quick notifications (McFedries, 2007). This practice has become popular among groups of friends and professionals who frequently update content and follow each other's posts, and hence a sense of community is created.

Gao, Luo and Zhang's (2012) critical analysis of research on microblogging in education suggests that microblogging has a potential to encourage participation, engagement, reflective thinking as well as collaborative learning under different learning settings. In addition, microblogging was employed in some studies (e.g. Perifanou, 2009; Lowe & Laffey, 2011; Rinaldo et al., 2011) for the purpose of extending communication beyond the classroom, e.g. posting learning materials and announcing events and assignments.

On Twitter, users connect by following each other; subsequently, the messages (tweets) of the person we follow appear on our homepage in a reversed chronological order. Like Facebook and other social networks, users can interact with a tweet by commenting, replying, mentioning, loving and retweeting (sharing) it. But - unlike discussion boards, blogs and chat - Twitter allows users to create pathways so that messages can be directed toward one person (@), be privately viewed (DM), or be retweeted (RT), i.e. shared with others (Thornton, 2009). Thus, users on Twitter interact with tweets by replying to, favouriting or retweeting them.

In ELL terms, this allows for giving feedback so that tweeters can revise or modify their tweets and retweet them. Besides, feedback can be provided privately through *Direct Messages* (DM).

Twitter includes a *hashtag* (written with # symbol) as a linking feature useful for aggregating the abundance of messages into topics, and thus relating written accounts and topics together (Hattem, 2014). It is used to index keywords on Twitter so that users can easily follow topics that interest them. They can also follow threaded conversations and find new people to follow. The hashtag symbol (#) is used before a relevant keyword or phrase in tweets to categorize them to show more easily in Twitter search. Clicking on a hashtagged word shows other Tweets that include that hashtag. Hashtags can be included anywhere in a Tweet and hashtagged words that become very popular are often *Trending Topics* (for more, see also: <https://support.twitter.com/articles/49309>).

There are many reasons why Twitter can be used in language learning settings, which can be summarised in: (1) accessibility from almost everywhere and via small devices such as tablets and smart phones; (2) relevance to students who have already used it for many living and communication purposes; (3) suitability to any language level; (4) quickness of writing on it; (5) promoting distinct and concise style; (6) being conversational in nature; (6) allowing for active participation and linguistic knowledge sharing; (7) fostering reflection in - and creative production of - the target language; and (8) allowing students to socialise in the target language both synchronously and asynchronously, and get immersed in an online learning community (Borau et al., 2009; Harmandaoglu, 2012; Taskiran, et al., 2016).

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Some studies employed Twitter to promote a social or cooperative learning community (e.g. Newgraden, 2009; Lomicka & Lord, 2011; Sekiguchi, 2012; Wesely, 2013; Carpenter, 2014; Benko, et al., 2016). In this sense, Sekiguchi (2012) employed Twitter as a social learning environment to promote interactive learning communities in which learners can actively participate on a regular basis. Thus, social learning beyond classroom boundaries is promoted. Similarly, Lomicka and Lord (2011) found that Twitter helped learners of an intermediate French language course to develop a sense of community through language learning. Data suggests that participants quickly formed a collaborative community in which they were able to learn, share and reflect.

Benko, et al. (2016) used Twitter to provide opportunities for reflection and collaboration during methods courses in two English education programs. The authors examined the affordances and limitations of using Twitter in methods courses and suggest revisions to help other teacher educators consider ways to use Twitter in their own courses. Specifically, the authors suggest that Twitter is useful for ongoing reflection and provides potential for preservice teachers to engage with larger communities of practice outside of their own institution; however, preservice teachers may need scaffolding and guidance for developing critical reflection skills and maintaining involvement in communities of practice.

Other studies used Twitter for professional development purposes (Davis, 2011; Carpenter & Krutka, 2015). In EFL contexts, one of the significant studies that explored the educational uses of Twitter in English teaching from teachers' perspectives was conducted by Carpenter and Krutka (2015). The study concluded that Twitter facilitated resource and idea acquiring and sharing, and also praised the service for providing them a way to connect to other educators beyond their local schools and districts. Some professional development practices were reported, such as resource sharing, collaboration with other educators, networking, and emotional support.

Some studies employed Twitter as a microblogging tool for many language learning purposes: increasing students' confidence and appropriate vocabulary use in English (Montero-Fleta et al., 2015); improving pronunciation instruction (Mompean & Fouz-Gonzlez, 2016); developing learners' reading and writing skills (e.g. Cheng, 2012; Dayter, 2013; Hamidon, et al., 2013; Hattem, 2014; Ahmed, 2015; Montero-Fleta et al., 2015; Benko, et al. 2016); training communicative and cultural competence (Borau et al., 2009); creating EFL learning communities (Taskiran, et al., 2016); supporting EFL students' self-regulated learning (Sekiguchi, 2012); using language for authentic purposes (Antenos-Conforti, 2009); literacy and authentic writing (Waller, 2010; Benko, et al. 2016).

For example, Borau et al. (2009) used Twitter to provide opportunities for learners to practice the target language in authentic environments. They stated that nearly half of the students reported communicating with native speakers on Twitter, whom they may not have access to otherwise. They concluded that learners could develop communicative and cultural competences in language learning.

Hattem (2014) conducted a qualitative case study that explored the use of language play while microblogging during an academically sanctioned task. Ten students and one teacher used Twitter in an intensive ESL advanced grammar course to practice writing sentences with complex grammatical constructions. By academically reframing their own learning activities, students took ownership of the task and went through a process of expansive learning.

One of the few studies that linked Twitter with reading at the undergraduate stage was conducted by Dayter (2013) who investigated the possibility of making reading strategy training more feasible through the use of a Twitter as a widely common microblogging platform.

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Reflective thinking has long been considered an important part of teacher education (Benko, et al., 2016). Student teachers need to become self-reflective learners by developing awareness of their own resources, especially in terms of how to manage and regulate them – a daunting and complicated process that needs much effort, time and training (Baker & Brown, 1984). More specifically, in language learning contexts, student teachers need to master reflective thinking and critical reading skills to develop higher-order thinking skills when prompted to: a) relate new linguistic knowledge to prior understanding; b) think in an active, meaningful way; c) implement certain strategies in novel tasks and learning situations; and d) understand their own thinking and learning strategies (Rodgers, 2002).

Subsequently, *critical reading* has become necessary. The increasing amounts of online data and linguistic content need mastering some critical reading skills so as to glean the most important and relevant pieces of information. Besides, the fact that anyone can publish anything on the Web has made critical reading and content evaluation more important than ever (Eagleton & Dobler, 2007; Coiro, et al., 2008). That is why scholars (e.g. Coiro, et al., 2008) coined the term *critical literacy* skills, which include: (1) making critical, informed judgement of online information, which involves employing critical thinking skills and strategies while investigating web-based information to discover its accuracy, validity, reliability, and appropriateness to the task at hand; (2) comparing and contrasting reliability of the online data by investigating multiple resources on the same topic; (3) making use of cues to identify relevant and important ideas; (4) being critical and reflective by going beyond the simple decoding and comprehension of the online text; and (5) using background knowledge while managing online data (Abdallah, 2011).

Theoretically, reading can be approached as an individualised process where it is impossible to find a single absolute meaning for the same text. Each individual might form a specific meaning of the same text or get the same message – but in a different way. According to the Transactional Theory of reading, the meaning of the text does not merely lie within the words on the page, but is created when each individual reader interacts with the text (Eagleton & Dobler, 2007). In this sense, the meaning becomes a new entity each time the text is read, and reading acts as an event that involves "a particular individual and a particular text, happening at a particular time, under particular circumstances, in a particular social and cultural setting, and as a part of the ongoing life of the individual and the group" (Rosenblatt, 1985, p. 100).

Unlike traditional paper-based reading, online reading is quite different. Since Web-based resources add layers of complexity to the read content, many critical reading skills are required to help learners with: (1) quick and smart navigation; (2) recognising important data; (3) comparing different online resources while keeping an eye on the main reading purpose; (4) activating prior knowledge while dealing with the online content; (5) relating different ideas and pieces together to build up a meaningful structure (Henry, 2006; Eagleton & Dobler, 2007; Coiro, et al., 2008; Dietsch, 2009)

Some few studies explored using Twitter to develop students' reading skills (e.g. Cheng, 2012; Hamidon, et al., 2013; Hunter & Caraway, 2014). Hunter and Caraway (2014), for example, investigated using Twitter in two urban high-school classes to support reading and discussion of a novel in an English class. They noticed that learners not only developed their reading abilities, but also went beyond the required tasks to extend their engagement with the text in ways that transformed literacy learning and English practices.

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As far as language learning is concerned, learners should make critical judgements while reading and viewing materials. This includes: (1) recognising stereotyping and bias; (2) identifying author's purpose; (3) prioritising the most important and relevant information; (4) validating new ideas; (5) comparing and contrasting facts and ideas within the same resource (e.g. website) and from multiple resources; (6) recognising how the information being read fits in a larger context; (7) reading objectively and being aware of common fallacies and methods of propaganda; (8) examining and weighing ideas and also considering their implications (Henry, 2006; Leino, 2006; Eagleton & Dobler, 2007; Dietsch, 2009).

Critical reading might be divided into three stages: pre-reading, rereading and prewriting. At the pre-reading stage, readers need to know a brief background of the author; in rereading, they should read the text in detail to examine ideas and relevant content; in prewriting, they should question and clarify ideas (Dietsch, 2009: 291-3).

According to Richards and Schmidt (2013), critical reading is approached in two senses: (1) going beyond the text and critically evaluating the relevancy and value of what is read, mainly by relating the content to personal standards, beliefs, values and attitudes; and (2) analysing textual ideologies and cultural messages as well as understanding the linguistic and discourse techniques with which texts represent social reality.

It is worth mentioning that critical thinking and critical reading share a common ground; both involve the processes of: (1) conducting text or content evaluation; (2) making critical judgements; (3) employing background knowledge; (4) creating relationships and connecting pieces together; (5) interpreting information and drawing conclusions; and (6) applying a creative manipulation of linguistic input.

In pre-service teacher education contexts, integrating critical reading and thinking skills has been explored by some researchers. For example, Sailin and Mahmor (2016) explored student teachers' participation and engagement in collaborative brainstorming for developing critical thinking by using online mind mapping (active learning) tool. In the same context, a study by Carlson (2016) is one of the very few studies that investigated using Twitter and critical thinking within a writing context. It concludes that Twitter strengthens critical thinking encouraging learners to think critically outside the classroom.

Thus, for the specific purposes of the study, *critical reading skills* are defined as:

Those strategies, processes and techniques employed by EFL student teachers while summarising an online text on a microblog, which involve: (1) going beyond the text to identify the author's purpose and evaluate the text from a critical, judgmental and objective view; (2) prioritising the most important and relevant information; (3) examining and weighing ideas and also considering their implications; (4) activating prior knowledge while dealing with the online content; and (5) relating different ideas and pieces together to build up a meaningful structure or summary.

There is a general trend nowadays to make the written content as much short and concise as possible. This is mainly due to the overwhelming content imposed by the spread of online tools, media and facilities. The main focus now is on the main idea or message rather than on specific details. Anyone interested to know more about something can easily refer to original sources.

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Linguistically speaking, rich linguistic input is currently available online in numerous forms. Therefore, what English language learners really need is the chance to actively produce language and use it as a means of communication. In the ELL process, written production is highly required to demonstrate linguistic competence. While anyone is able to write, not everyone can present his/her ideas directly, briefly and consistently (Borau, et al., 2009).

Therefore, it has become necessary for adult language learners to master some *summarization skills*. This mainly involves the ability to produce brief statements of the main ideas - or critical information - in a text/passage while or after reading something (Richards & Schmidt, 2013). This ability reflects understanding of a specific linguistic input. It includes some creativity and personal reflection and - when practised online – it is performed after much editing, paraphrasing and revision.

Summarization skills require students to reprocess information and express it in their own words. This would improve their comprehension as they need to be involved in active and critical reading. A summary is viewed as an overview, in the student's words, of the most important information from reading sources. Sometimes students get lost in the details; and thus a summary enables them to see the big picture. A summary is always shorter than the original material (Shi, 2012).

One of the most recent and relevant studies that targeted improving both EFL student teachers' reading and summary skills was conducted by Chaichompoo (2017) who employed e-mapping for this purpose. A very few studies employed twitter for developing summarizing skills (e.g. Alsaedi, Burnap & Rana, 2016)

For the purposes of the study, *summarizing skills* are defined as:

The ability to state the main ideas and significant information of an online text while microblogging on Twitter in no more than 140 characters – the maximum limit allowed by the application. This includes producing brief statements of the critical data in the online text while or after reading it.

2. Research Problem & Objectives

Despite the enthusiasm in educational microblogging – as Gao, Luo & Zhang (2012) report, relevant research is rather limited. It is surprising that rare research studies were conducted to employ Twitter and other microblogging tools in language learning contexts. More specifically, although Twitter is increasingly present in language learning contexts, very few studies have provided evidence as to how it influences linguistic processing and production in general, and critical reading and summarising skills in particular.

Currently, Egyptian learners of different ages - and approximately at all educational stages and levels - are familiar with social media, which they employ for a wide range of purposes. In general, this is a new literacy requirement imposed by this digitally-oriented era and technological life style. While writing, EFL student teachers at Assiut University Faculty of Education always presented content that was full of redundancy and excessive elaboration. In addition, they demonstrated poor critical reading skills necessary for giving clear and comprehensive summaries of the linguistic content they encountered online.

EFL student teachers' style included much redundancy, with less focus on the gist. In addition to lack of critical reading skills, this is also attributed to transference from Arabic - as the mother tongue - that negatively influences how they learn English and communicate with it. Twitter - as an application - can be employed for obliging them to be more direct, concise and brief.

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Based on the researcher's personal experience with Twitter, the application's 140-character maximum limit for each tweet (post) can be utilised to the learner's advantage; it can be used in training learners on how to communicate the message more directly in the shortest possible way. Besides, it can foster learners' creativity by activating many mental and linguistic skills while working hard to convey the same message within a limited space (Sah, 2015).

Thus, the problem of the study might be represented in the fact that critical reading and summarising skills are not currently in focus at Assiut University Faculty of Education, although EFL student teachers nowadays are strongly required to communicate the message properly, briefly and consistently.

Therefore, the main aim of the study is represented in investigating the impact of using an instructional microblogging model based on Twitter on developing EFL student teachers' critical reading and summarization skills. This entails accomplishing the following *research objectives*:

1. Identifying the critical reading and summarization skills that EFL student teachers might need in their pre-service language teacher education context.
2. Designing an instructional microblogging model based on Twitter in the light of the identified skills.
3. Implementing the suggested model to a sample group of EFL student teachers.
4. Measuring the impact of the suggested model on developing EFL student teachers' critical reading and summarization skills.

Based on these objectives, the present study attempts to answer the following *research questions*:

1. What are the critical reading and summarization skills that EFL student teachers might need in their pre-service language teacher education context?
2. What will an instructional microblogging model based on Twitter designed in the light of the identified skills be like?
3. What is the effect of the suggested instructional microblogging model on developing EFL student teachers' critical reading skills?
4. What is the effect of the suggested instructional microblogging model on developing EFL student teachers' summarization skills?

3. Methodology & Procedures

3.1 *Methods & tools*

To accomplish the research objectives, the researcher followed the pre-post one-group experimental design. Thus, participants were pre-tested in both critical reading and summarization, and then were exposed to a microblogging instructional model (as an intervention), and eventually post-tested in the same two areas. This design is ideal when a researcher targets measuring development or the potential effect of a specific instructional model/design and to what extent it worked to reach the desired outcomes in controlled conditions (Cohen, Manion & Morrison, 2013).

Thus, the following methods and tools that were prepared by the researcher were used:

1. a critical reading pre-post test (see Appendix A)
2. a summarization pre-post test (see Appendix B)
3. a microblogging instructional model

3.2 Participants

Participants consisted of 50 EFL student teachers at Assiut University Faculty of Education who were randomly selected from among the whole group (n = 316) of EFL student teachers. Their age ranged from 17-19 years old, and 95% from them were originally from Assiut Governorate. Prior to participation, an informal meeting was done with them by the researcher to ensure their validity to participate in the study, and to what extent they already use Twitter for common life purposes. Based on this, a subsequent orientation was conducted to practise the basic literacy and electronic skills needed for using Twitter.

3.3 Procedures followed to answer research questions

To reach the research objectives, the study employed the experimental one-group pre-post design. In the light of the research questions stated above, the researcher will explain the procedures that were followed to answer them.

To answer the **1st research question**, '*What are the critical reading and summarising skills that EFL student teachers might need in their preservice language teacher education context?*', the researcher reviewed relevant literature (e.g. Abdallah, 2011; Cheng, 2012; Dietsch, 2009; Eagleton & Dobler 2007; Lomicka & Lord 2011; Sailin & Mahmor 2016; Shi, 2012) and conducted some open interviews (face to face, online and via the phone) with TESOL specialists to come out with two preliminary lists of critical reading and summarising skills needed by EFL student teachers. The compiled lists were submitted to some jury members in the field (n = 20) to provide their feedback stating their viewpoints and suggestions. Based on this, amendments were made and the final two lists were compiled by the researcher (see Tables 1 & 2 below). And thus, the first research question was answered.

Table 1:

List of Critical Reading Skills Needed by EFL Student Teachers

Main Categories	Specific Critical Reading Skills
1. Identifying important/relevant ideas	1.1 Gleaning the most important and relevant pieces of information.
	1.2 Making use of cues to identify relevant and important ideas.
	1.3 Identifying the author's purpose, intention and/or goal.
	1.4 Applying quick and smart navigation to recognize relevant pieces of data.
	1.5 Prioritizing the most important and relevant information
2. Relating & connecting pieces together	2.1 Activating prior knowledge while dealing with the new (online) content.
	2.2 Going beyond the simple decoding and comprehension of the online text.
	2.3 Relating different ideas and pieces together to build up a meaningful structure.
	2.4 Recognizing how the information being read fits in a larger context.
	2.5 Comparing different online resources while keeping an eye on the main reading purpose/goal.
3. Judgment & Evaluation	3.1 Recognizing stereotyping and bias.
	3.2 Comparing and contrasting facts and ideas within the same resource (e.g. website) and from multiple resources.
	3.3 contrasting the text they are reading with other different texts to find similarities and differences.
	3.4 Reading objectively and being aware of common fallacies and methods of propaganda.
	3.5 Assessing the texts' logic, credibility and emotional impact.
	3.6 Employing critical thinking skills and strategies while investigating web-based information to discover its accuracy, validity, reliability, and appropriateness to the task at hand.
	3.7 Examining and weighing ideas and also considering their implications.
	3.8 Reading objectively and being aware of common fallacies and methods of propaganda.

Table 2:

List of Summarization Skills Needed by EFL Student Teachers

Main Categories	Specific Summarization Skills
1. Identifying main ideas	1.1 Identifying a topic sentence
	1.2 Extracting the most important points from a text and rewriting them in one's own words
	1.3 Locating key words vs. supporting details
	1.4 Writing main ideas while skipping unnecessary details
2. Reducing the original text	2.1 Reducing word and letter number.
	2.2 Eliminating redundancy and presenting in one's own words a condensed version of the original material
	2.3 Skipping word fillers and empty phrases
	2.4 Doing Keyword and sentence extraction
	2.5 Joining short sentences together using linking words.
3. Conducting necessary linguistic changes	3.1 Nominalization, i.e. changing a verb into a noun
	3.2 Changing adverbs to adjectives
	3.3 Joining short sentences together with linking words
	3.4 Breaking up long sentences into shorter sentences
	3.5 Using of synonyms and equivalents to avoid repetition
4. Reading & Writing Style	4.1 Presenting the material in a neutral fashion.
	4.2 Covering in the summary the original text as a whole.
	4.3 Presenting the material in a neutral fashion.
	4.4 Reading what is between the lines to pick up hidden information.
	4.5 The ability to distinguish between important and less important information when reading.
	4.6 Making amendments to draft as necessary.
	4.7 Using lexical phrases to summarize ideas.
	4.8 Using a concise but precise writing style: The ability to reconcile concision with precision is a key to good summary writing.
	4.9 Using lexical chains in text summarization.
	4.10 Paraphrasing skills to avoid copying verbatim from the text being summarized.

1-Task: Students are asked to review an online document while employing some critical reading strategies to summarize it in 140 characters maximum.

2-Input: Students are exposed to an online document written in English (i.e. an article, a report, a critical review, a short story, etc.) chosen by the instructor. The language level of the chosen document should be within the students' proficiency level or a little bit beyond.

3-Processing: Students are asked to process the text through critical reading, drafting and writing preliminary notes that include the main ideas and highlights.

4-Micorblogging: Students are asked to use Twitter as a means through which they can share their written summaries with others. To distinguish their summaries in Twitter, students are asked to include in their tweets the same hashtag suggested by the instructor to refer to the same task.

5-Output: The output here takes the form of a tweet that should not exceed 140 characters.

6-Feedback: Feedback on the tweet comes from the instructor and other peers. This feedback would lead to a new cycle of processing, microblogging and providing a new output.

Table 3: A Microblogging Session Model

Session	Task	Duration	Input	Methods & Techniques	Linguistic Input	Processing	Evaluation
One	Open the link to read the text. Read it critically to summarize the main ideas in it no more than 140 characters including this hashtag: #Mosharafa_summary	45 minutes	https://en.wikipedia.org/wiki/Ali_Moustaafa_Mosharafa	<ul style="list-style-type: none"> - Microblogging - Online reading - Critical reading - Online writing - Online Peer Interaction 	<ul style="list-style-type: none"> -Theoretical physicist - Quantum theory - Scientist - Academic career -Rank -Professor – Associate Professor 	<ul style="list-style-type: none"> 1-General overview 2-Critical reading 3-Drafting 4-Re-reading 5-Re-drafting 6-Tweeting 7-Revising 8-Re-tweeting 	<ul style="list-style-type: none"> -Online feedback -Peer feedback

Before starting the intervention, research participants (n = 50) were met face to face for orientation purposes. Then, all sessions were made online (duration of each session 45 minutes), with possible extensions that could have been necessary for any reason such as unavailability, Internet cuts, log-in failures, etc.

The intervention lasted for 5 weeks: 2 sessions every week. Thus, the total number of online sessions was 10 administered in 5 successive weeks.

During the intervention, the *hashtag* – as a prominent feature in Twitter – was employed so as to link topics together and distinguish relevant tweets to create a *thematic link*. Unlike Facebook, Twitter unfortunately does not enable creating groups so that research participants could be linked together in one closed group, and thus everything would be visible to all members in one place. To overcome this visibility issue, an agreed-upon hashtag was used in each microblogging session to distinguish tweets and comments made by both the instructor and students with relation to the topic at hand (e.g. #Mosharafa_summary)

To answer the 3rd and 4th questions of the study, the researcher reviewed both literature and the obtained lists (see Tables 1 & 2 above), and designed a critical reading test and a summarization test. The tests (see Appenices A & B) were submitted to jury members in TESOL to ensure validity and suitability to the research purposes. Modifications were made to the two tests based on the jury's suggestions. To test reliability, a split-half test-retest was employed. The 1st test (critical reading) yielded an internal reliability of 0.80 while the 2nd test (summarization) yielded an internal reliability of 0.85.

Before the intervention, a critical reading pre-post test and a summarization pre-post test were administered to participants. Scores were obtained and tabulated in SPSS to be used later on for comparative purposes (i.e. comparing performance of participants before and after the intervention). Then, the Microblogging Model was administered to participants for 5 weeks. Eventually, participants were post-tested on both critical reading and summarization. Means of scores were tabulated and obtained through SPSS, and a T test was done using SPSS which managed all statistical treatment in the study.

4. Results & Discussion

4.1 Developing critical reading skills

Developing critical reading skills is related to answering the 3rd research question of the present study. Obtained results show the effectiveness of the proposed instructional model based on microblogging on developing EFL student teachers critical reading skills. A comparison of participants' scores on both the pre and post-administration of the critical reading test (see Appendix A) shows that participants' performance on the critical reading post-test was significantly higher than their performance on the critical reading pre-test (see also Table 4 below). This is evident by the high calculated T value that was significantly higher than the table value.

Table 4: T Value of Critical Reading Pre-Post Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Critical Reading Pre-Test - Critical Reading Post-Test	-1.01000E1	2.53345	.35828	-1.08200E1	-9.38000E0	-2.819E1	49	.000

This is consistent with results reached by some previous studies (e.g. Cheng, 2012; Hamidon, et al., 2013; Hunter & Caraway, 2014)

Informal interviews with participants revealed that using Twitter as a microblogging tool was useful because of: (1) accessibility from their mobile devices; (2) relevance with their everyday practices; (3) quickness and easiness of writing on it; (4) being dialogic, conversational and interactive in nature; (5) indulging them in active learning and knowledge sharing; (6) fostering their reflection and creativity in the English language; and (8) allowing for socialising in the target language both synchronously and asynchronously in the context of an online learning community. These results are consistent with previous ones obtained by Borau et al. (2009); Harmandaoglu (2012); Taskiran, et al. (2016).

Some participants (n = 30) reported developing a sense of community and social presence as a result of using Twitter. This is consistent with results of some previous studies (e.g. Newgraden, 2009; Lomicka & Lord, 2011; Sekiguchi, 2012; Wesely, 2013; Carpenter, 2014; Benko, et al., 2016).

Further, it was noticeable that hashtags facilitated connection among research participants. They reported easy access to relevant topics by just searching for – and clicking on – a particular hashtag.

It seems that participants employed Twitter as a microblogging tool for developing their critical reading skills when it was used for collaborative and reflective purposes; the tool was best utilised when it offered something new without repeating the ongoing practices, and the instructional model fostered collaborative work where the tasks were appropriate. This goes in line with a study conducted Henderson, Snyder and Beale (2013).

4.2 Developing summarization skills

Developing summarization skills is related to answering the 4th and last research question of the present study. Obtained results show the effectiveness of the proposed instructional model based on microblogging on developing EFL student teachers summarization skills. A comparison of participants' scores on both the pre and post-administration of the summarization test (see Appendix B) shows that participants' performance on the summarization post-test was significantly higher than their performance on the summarization pre-test (see Table 5 below). This is evident by the high calculated T value that was significantly higher than the table value.

Table 5: T Value of Summarization Pre-Post Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Summarization Pre-Test - Summarization Post-Test	-8.66000	2.59206	.36657	-9.39666	-7.92334E0	-23.624	49	.000

This is consistent with some previous studies like the ones conducted by Chaichompoo (2017) and Alsaedi, Burnap & Rana (2016)

Almost all participants (n = 48) reported that the great pressure to summarise a long text in a few characters forced them to read neatly and deeply to understand the text. It was difficult for them – as many reported – to come out with a few words without a feeling of mastery and freedom that was not possible with the shallow, literal reading they used to.

The significant positive effect of microblogging through Twitter on developing participants' summarization skills can be attributed to the features of Twitter itself as a microblogging tool, which are represented in: (1) the limited number of characters allowed for each tweet (140 characters); (2) the hashtag (#) feature that facilitated linking topics together and recognizing certain tweets; (3) the flexibility of Twitter, especially in terms of navigation and management of content; and (4) the visibility of Twitter that enabled participants to easily locate things and recognize items.

More specifically, Twitter as both a social network and microblogging tool provided many opportunities for active, collaborative, authentic, purposeful and/or focused writing. The fact that tweets on Twitter are limited to 140 characters - including spaces and punctuation - helps with concentrating language accuracy and communicative precision (see also Grosseck & Holotescu, 2008), and hence enhances creativity (Sah, 2015). In other words, it really focuses the user's attention requiring a great deal of summarizing (Harmandaoglu, 2012). What distinguishes Twitter in this respect is that while the user is writing, it counts the characters for him/her. Remaining characters show up as a number below the tweeting box (<https://support.twitter.com>).

Moreover, social media extends learning through offering new opportunities such as: (1) contact with outside experts; (2) purposeful interactions among students in different locations; (3) a means to enhance learners' participation; (4) a means for extending time; and (5) a facility for timely feedback from teachers and peers.

6. Conclusion

Based on the research results which indicated a significant impact of Twitter as a microblogging tool on developing EFL student teachers' critical reading and summarization skills, many suggestions and recommendations can be made:

1. Creating flexible interactive instructional models based on social networks and microblogging tools to develop the main language skills;
2. Integrating Twitter in language learning contexts at different stages, especially preparatory and secondary schools, and encouraging learners to use Twitter to share their personal reflections and write flexibly in the English language;
3. Integrating mobile technologies (i.e. smart phones and tablets) in formal language learning situations both at schools and university;
4. Fostering the capacity of EFL student teachers to form connections between sources of information, and thereby creating useful information patterns so as to learn English more effectively;
5. Guiding language learners into language learners extending English practice beyond classroom boundaries throughout the use of social media and mobile-based language learning (MALL);
6. Reinforcing and promoting informal learning and lifelong learning approaches supported with online social networks to develop EFL student teachers' mastery of the English language;
7. Employing microblogging during teaching writing in English courses at different stages;

8. Using Twitter for research and professional development purposes in the post-graduate courses;
9. Exploring more the hash-tag feature enabled by Twitter in different genres of writing (e.g. connective writing, collaborative writing and reflective writing);
10. Suggesting other instructional models based on Web 2.0 and Web 3.0 tools that might help with developing and improving critical reading and summarization skills;
11. Exploring using Facebook as a social networking tool for developing EFL critical reading and writing skills;
12. Investigating the use of Twitter for developing EFL student teachers' textual and literacy practices at the undergraduate stage;
13. Exploring other uses of Twitter for developing English language proficiency and basic literacy skills for English language learners.

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