



# Developing Reflective Thinking Skills among EFL Prospective Teachers through Facebook-Delivered Writing Activities

# By

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بحث مشتق من الرسالة الخاصة بالباحث

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#### **Abstract**

The present study aimed at developing reflective thinking skills among EFL prospective teachers through Facebook- delivered writing activities. The design of the present study was a pre-post, one experimental group. The participants of the study were forty-five EFL prospective teachers (Primary Education) at Faculty of Education, Aswan University. The present study used the reflective thinking scale, developed by the researcher, as an instrument for assessing the participants' EFL reflective thinking skills. Participants were asked to practice writing activities and tasks delivered through a Facebook group "Think and Write" which created for the purpose of the current study. Data were collected and participants' scores in the reflective thinking scale were used as measures of their development in reflective thinking skills. Results revealed that the participants' reflective thinking skills were developed as a result of participating in the Facebook group. Accordingly, the Facebook- delivered writing activities were found to be effective in developing reflective thinking skills among EFL prospective teachers.

**Key Words:** Web 2.0, Reflective Thinking Skills.

#### **Theoretical Background:**

#### Reflective Thinking

Reflective thinking has been identified as an important component in the practice of education. It provides learners with an opportunity to correct misconceptions and fill in gaps by helping them to think about what they are doing and why they are doing it. Reflective thinking is especially helpful in solving complex tasks, because it helps learners to identify facts, formulas, and theories that are relevant for the solution of an ill-defined problem. However, reflective thinking is most important in prompting learning during complex problem-solving situations because it provides students with an opportunity to step back and think about how they actually solve problems and how a particular set of problem solving strategies is appropriated for achieving their goal (King and Kitchener, 1994).

The starting point for defining reflection is usually problematic, but historically, Dewey is acknowledged as one of the originators of the concept of reflection in the twentieth century. In most articles dealing with reflective teaching, the roots of the term are traced back to John Dewey (1933). Shulman (1987, p. 15) defines the process of reflection as reviewing, reconstructing, reenacting, and critically analyzing one's own and the class's performance. In addition, Ross (1990, p. 22) defines reflection as a way of thinking about educational matters that involves the ability to make rational choices and to assume responsibility for those choices.

The notion of reflective thinking or what is commonly referred to as 'reflective practice', 'reflection', and 'reflective practitioner', is not a new idea but originates from the work of John Dewey (1933). Dewey defined reflective thinking as "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the conclusion to which it tends" (Phan, 2006, p. 582).

Mezirow (1991, p. 104) defines reflection as the process of critically assessing the content, process, or premise(s) of our efforts to interpret and give meaning to an experience. In his theoretical orientation of reflective thinking, Mezirow suggests that as adults expand into their personal learning, they become more adaptive and are able to benefit from their experiences. Also, reflective thinking involves not only cognitive processes, but also affective, social, cultural, and political reasoning (Jensen and Joy, 2005).

Norton (1997) stated that reflective thinking emphasizes the consequences of ideas and suggests future physical action to confront and to solve a variety of personal and professional obstacles. In the teaching and learning processes, reflective thinking cultivates meaningful learning and helps students and educators develop specific skills that may assist them to be more critical, and to develop expertise in their areas of professionalism

According to Gilbert (2001), for teachers who engage in reflective action, Dewey identified five stages that are involved in the process of reflective thinking as follows:

- The initial stage is always a doubt or confusion that arises out of an activity.
- The second stage is one in which the teacher actively seeks to organize the uncertainty or doubt into a question that can be solved.
- In the third stage of the process, the reflective thinker continues to organize the doubt or confusion into a possible solution to the problem.
- Once a possible solution is formulated, a detailed and thorough examination is made of that solution based on prior knowledge and experience in stage four.
- The fifth and final stage is the action. The reflective thinker tests the possible solution in order to determine if it is a solution that works.

#### Rodgers (2002) identified the following phases of reflection:

- An experience.
- Spontaneous interpretation of the experience.
- Naming the problems or the questions that arise out of the experience.
- Generating possible explanations for the problem or questions posed.
- Ramifying the explanations into full-blown hypotheses.
- Testing or experimenting the selected hypothesis.

Numerous frameworks have been developed to assist students develop their reflective thinking skills. Gibb's Reflective Cycle (1988) uses the technique of questioning to transfer insight into practice. Questions using the Gibb's Reflective Cycle are posed to guide the discussion by: 1) beginning with a description of the event, "What happened"; 2) progressing to a discussion of feelings, "What were you thinking and feeling"; 3) evaluating the experience, "What was good and bad about the experience"; 4) engaging into analysis, "What sense can you make of the situation?"; 5) performing a self-critique, "What else could you have done?" and finally; 6) generating an action plan, "If it arose again, what would you do?" (cited in Johns, 2004, p. 17).

Wilson and Wing (2008, p. 55) mentioned that reflective learners are able to:

- Break down problems into manageable steps and draw up an action plan which includes a variety of techniques.
- Plan out the resources they need before commencing a task.
- Describe the skills and qualities they possess and how they are working to address weaknesses.
- Flexible in their use of learning styles and select which ones to use according to the task.
- Plan when to stop and reflect on their progress in a task and revise their plans when necessary.

- Make increasingly complex or abstract links to learning.
- Accurately assess the quality of their learning.
- Neglect negative things unnecessarily and can move on.
- Use a positive attitude to get the best out of every situation.

In light of this review, learners are now expected to become more independent and reflective learners. Teachers are no longer solely information providers; rather, the role of teachers is to facilitate learners' learning. Thus, it is essential that today's learners acquire the capacity to engage in reflective practices, and master higher-order thinking skills that require deep thinking and the ability to rationalize every decision made.

#### **Facebook:**

Today, a new set of easy to use tools represented by a new concept in programming called Web 2.0 has allowed millions of users to publish their ideas and collaborate with an audience that spans the globe. According to O'Reilly (2005), Web 2.0 is participatory, scalable, and cost effective. It is a platform of services that is built on collective intelligence. In Web 2.0, users customize and control their own data. Software applications are server based and developed, shared, and maintained collectively by programmers from around the globe.

Collis and Moonen (2008, p. 97) defined Web 2.0 as the web-based services that emphasize online collaboration and sharing. These web services have resulted in platforms with architectures of participation that allow users to contribute and share data. These services support the production, organization, and dissemination of vast amounts of knowledge that is generated and monitored by a user community. These technologies can help create environments of real-time participation and collaboration.

A number of Web 2.0 tools have been used for educational purposes for years. Researchers and educators have shared their experiences and ideas to put Web 2.0 into practice in classrooms to enhance learning. These Web 2.0 tools can be categorized as social networking software, multimedia sharing, Rich Site Summary (RSS), Google applications, blogs, wikis, podcasts, video casts and so on (Anderson, 2007; O'Reilly 2005). For the purposes of the present study, the most common Social networking site "Facebook" will be discussed.

According to González-Ramírez, Gascó and Taverner (2015, p. 66), among all social networks, "Facebook" is the most often used one. Facebook is an example of Web 2.0 technology which has an enormous potential in the field of education, though it was not created to construct or handle learning experiences. It operates within an open platform, unlike other systems organized around formally structured courses. As a matter of fact, although Facebook is not a learning environment, it can act as very valuable support for the new social orientations which are currently appearing in educational processes. Facebook represents a great opportunity to generate knowledge and cohesion within groups.

Halawati and Soh, (2013, p. 195) stated that Facebook may become a tool to help students learn and educate themselves simultaneously. It can actually be used to perform the same type of functions that were already carried out by other information and communication technologies, such as communicating students with one another, or with their teacher, receiving announcements or updates, and also managing projects and collaboration schemes outside the classroom. Many students have already become familiar with Facebook which help them develop a greater motivation to learn. Bringing Facebook and teaching together makes it possible to break the four walls of a classroom and gives students a place where they can interact with one another in order to effectively improve their learning.

Terantino and Graf (2011, p. 44) mentioned that Facebook provides a target-language-friendly interface created for and used by native speakers in a format familiar to students. As users connect, they are able to share internet links and multimedia such as photos or videos with ease. This allows the instructor to facilitate discussion among students of target language and culturally relevant material. Utilized as a communicative tool in the language classroom, Facebook can also serve to promote collaboration through target language discussions, comments, and questions.

Ellison, Steinfield and Lampe (2007) argued that Facebook has a variety of interactive features and it provides a convenient environment for the development of discourse communities with its varied participatory mechanisms. The students can create their personal profile page allowing them to list interests and activities and share with others. They also belong to a group, which is a feature that is available on the social networking site Facebook. This feature allows for an unlimited number of members to participate, communicate and interact via post and chat style for a specific purpose.

Grosseck, Bran, and Tiru (2011, p. 1425) confirmed that Facebook has become a significant part of students' life. Consequently, more and more university teachers embrace the idea that it can also be used at an academic level and not just at a social level, and that it can be used for many different things / purposes connected to (formal) education.

Moreover, Kirschner and Karpinski (2010, p. 1239) confirmed that facebook is a web 2.0 tool that helps students to:

- Foster positive relationships with peers of similar age and interests, and encompass motivation and engagement.
- Get involved in achieving the learning tasks and the successful transfer of knowledge.

- Develop a positive attitude towards learning to improve the quality of learning.
- Increase individual responsibility and autonomy; develop interpersonal intelligence, critical thinking, communication, and cognitive and social competencies.
- Consolidate self-confidence and self-esteem.
- Communicate with the teacher outside the classes.

Different studies investigated the effect of using Facebook in language teaching and learning. Melor et al. (2012) revealed that Facebook can be embedded in writing activity as the participants utilize the features in Facebook to learn new vocabulary by reading the comments of the other students in the group, discussion in getting ideas for writing, and spell-check by peers. The study also proves that using Facebook actually can help the students in completing their essays easier by participating in the Facebook group discussion.

Yunus and Salehi (2012) investigated the students' perceptions on the effectiveness of Facebook (FB) groups for teaching and improving writing. Participants included 43 third year TESL Malaysian students. The students' perceptions were measured through a questionnaire comprising 10 close-ended items and 3 open-ended ones. Respondents were required to participate in a Facebook group created by the researchers called "Write Out Loud". The findings showed that 'Facebook groups' is an effective tool in improving students' writing skills, especially in the brainstorming of ideas before the actual writing.

Alias, Ab Manan, Yusof & Pandian (2012) examined using Facebook notes as the medium of providing peer feedback to students' written work. Planning, drafting, revising, and editing are the four stages involved in a writing process. It was found that the students, with guidance from the teacher, were able to provide constructive feedbacks to their peers. The comments and suggestions posted on the Facebook

Notes were found to be useful in helping their peers improve their outlines and their first draft. So, language teachers could benefit this new tool in giving feedbacks to the students.

Suthiwartnarueput & Wasanasomsithi (2012) examined the use of Facebook as a means by which users can participate in discussion boards about grammar and writing. Data was collected from student discussion boards concerning explanations about grammar, in addition to participant scores in three phases. Most postings were shown to involve sentence structures, word meanings, parts of speech and relative clauses. Findings revealed that participants expressed attitudes supportive of utilizing Facebook as a method of language instruction.

Bani-Hani, Al-Sobh and Abu-Melhim (2014) investigated the effect of Facebook group on enhancing the writing performance, perceptions, and attitudes of Jordanian EFL students' towards teaching writing. The participants were 42 EFL students. Findings revealed that Facebook groups can be effective in teaching EFL writing. Furthermore, results illustrated that students can develop their vocabulary by being exposed to fellow group members' posts, in addition to checking for misspelled words.

Abd-Elfatah (2016) conducted a study aimed at exploring the effect of Facebook on grammar discussion and writing skill among EFL Saudi university students. The study sample included 60 students who were divided into an experimental group, taught using Facebook, and a control group, taught using the traditional method. An EFL grammar and writing test was used. Results of the study showed that the experimental group outperformed the control group in the post-test of EFL grammar and writing. This difference can be attributed to using Facebook.

In the present study, a Facebook group will be created specifically for providing students with a space where they practice the offered writing activities and tasks, and the opportunity to practice their writing. In other words, students post their written pieces, receive comments, write and post their own comments, and reply to other Facebook group members. The researcher acts as a facilitator for the group and provides immediate feedback and interaction to motivate students in improving their reflective thinking skills.

#### Problem of the Study

Problem of the present study can be stated as follows: the majority of EFL prospective teachers (Primary Education) at Aswan Faculty of Education need to develop their reflective thinking skills to be able to analyze problems, think what knowledge is needed to solve them, think and evaluate alternative solutions, and determine the suitable solutions.

#### **Questions of the Study**

This study is an attempt to answer the following questions:

- 1-To what extent do EFL prospective teachers master reflective thinking skills?
- 2-What is the effect of the Facebook-delivered writing activities in developing EFL prospective teachers' reflective thinking skills?

# Hypothesis of the Study

• There is a statistically significant difference between the mean score of the study sample in reflective thinking skills on the pre and post administrations of the reflective thinking scale in favor of the post administration.

# Significance of the Study

Significance of this study can be stated as follows:

By presenting the Facebook-delivered writing activities to EFL prospective teachers, the present study may have a beneficial and positive effect on developing their reflective thinking skills.

- Providing EFL specialists with Facebook as a new tool that can be implemented in both in-service and pre-service programs for English teacher education.
- The scarcity of research addressing the use of Facebook in developing reflective thinking skills among university students in Egypt enhances the significance of this study.
- The reflective thinking scale that will be prepared and used in this study might be useful for both teachers and other researchers.

#### **Delimitations of the Study**

The present study is delimited to the following:

- 1- A sample of fourth year EFL prospective teachers (Primary Education) at Faculty of Education, Aswan University.
- 2- Facebook as a web 2.0 tool.

#### **Procedures of the Study**

The following procedures were followed to carry out the present study:

- 1- Reviewing literature and previous studies related to reflective thinking, and Facebook.
- 2- Developing the reflective thinking scale to measure the level of reflective thinking among EFL prospective teachers.
- 3- Applying the reflective thinking scale to the study participants to measure their level in reflective thinking before implementing the writing activities.
- 4- Creating the Facebook group and administering the writing activities to the study participants.
- 5- Applying the reflective thinking scale to the study participants to measure their level in reflective thinking after implementing the writing activities.

- 6- Comparing the findings statistically.
- 7- Analyzing and interpreting the findings of the study.
- 8- Recommendations and suggestions.

#### **Definition of Terms**

#### Reflective Thinking

According to Önen and Koçak, (2014, p. 789).), reflective thinking "involves style of thinking using a knowledge structure supportive of any thought, knowledge and reaching their expected outcomes in an effective, coherent and careful way".

Fritts (1989, p. 8) stated that reflective thinking "involves clarifying a problem, collecting and organizing data, considering the data in relation to one's inferences, and formulating conclusions".

Moreover, Gray (2007, p. 496) defined reflective thinking as "an active and purposeful process of exploration and discovery, often leading to unexpected outcomes. It is the bridge between experience and learning, involving both cognition and feelings".

The researcher adopts Gray (2007) definition of reflective thinking as an operational one.

#### **Facebook**

Kirschner (2015, p. 621) mentioned that Facebook is "a web-based, interactive network that allows users to share information and thoughts over a wide area"

Yunus and Salehi (2012, p. 88) mentioned that Facebook can be seen as "a Web 2.0 platform which boasts high user-content and participation in which students are able to appreciate and value the benefits of collaborative learning".

The researcher defines Facebook operationally as "a web 2.0 application that used as a medium for developing EFL prospective teachers' reflective thinking skills using assigned writing activities".

#### **Method and Procedures**

#### Sample of the Study

The subjects of the present study were the EFL prospective teachers (Primary Education) at Faculty of Education, Aswan University, in the academic year 2016-2017. The study sample consisted of forty-five students (N=45).

#### Instruments of the Study

For the purpose of the present study the researcher prepared the reflective thinking scale which was used to assess the participants' EFL reflective thinking skills before and after implementing the Facebook-delivered writing activities:

#### **The Reflective Thinking Scale**

The reflective thinking scale, used in the present study, was prepared by the researcher in light of the reflective thinking scale prepared by Kember et al. (2000). The reflective thinking scale, consisted of sixteen statements, includes four sub-scales and each is measured using four items. The sub-scales are: habitual action, understanding, reflection and critical reflection. These item features are on a 5-point response scale (A- definitely agree; B- agree with reservation; C- only to be used if a definite answer is not possible; D-disagree with reservation; E- definitely disagree).

# Objectives of the Reflective Thinking Scale

The reflective thinking scale was used before the implementation of the Facebook-delivered writing activities to measure the reflective thinking skills of the EFL prospective teachers participated in the present study. Moreover, it was used after the implementation of the Facebookdelivered writing activities in order to investigate their effect on developing participants' reflective thinking skills.

#### Validity and reliability of the Reflective Thinking Scale

To achieve the content validity of the reflective thinking scale in its preliminary form, it was submitted to a jury of EFL experts. They were asked to judge the scale face validity in terms of clarity of its items and suitability for the participants' level. All jury members indicated that the reflective thinking scale was clear and suitable for participants of the study and valid for measuring EFL prospective teachers' reflective thinking skills.

In addition, the test re-test method was used to determine the reliability of the reflective thinking scale. The scale was administered to a group of EFL prospective teachers at Faculty of Education, Aswan University (N=49). Then it was administered to the same group again after two weeks. The Pearson correlation between the two administrations was (.71). This means that the reflective thinking scale is a reliable tool to measure EFL prospective teachers' reflective thinking skills.

# **Scoring the Reflective Thinking Scale**

Under the guidance of the researcher, the EFL prospective teachers were asked to complete the scale and choose one of the options 'definitely agree', 'agree with reservation', 'no opinion', 'disagree with reservation' or 'definitely disagree' in response to each of the sixteen statements. These options are scored from five points for 'definitely agree' to one point for 'definitely disagree'. The most reflective student, who 'definitely agreed' with all statements would receive a score of five for each of the eight statements about reflection or critical reflection. This student would receive a score of forty, the maximum score possible. A student, who agreed with reservation to all eight statements about reflection, would receive a score of four for each statement or a total score of thirty-two.

#### Findings of the Study

The findings of the current study are presented in the light of the hypothesis of the study using the Statistical Package for Social Sciences (SPSS). The hypothesis of the present study states that "there is a statistically significant difference between the mean scores of the study sample in the pre and post administrations of the reflective thinking scale in favor of the post administration". The following table presents students' mean scores, standard deviations, t -value and level of significance in the pre and post administrations of the reflective thinking scale.

Table (1): the t-value, mean scores, standard deviations, and level of significance in the pre and post administrations of the reflective thinking scale.

Scale	Measurement	N	Mean	S.D	T- Value	D.F	Sig.
The Reflective	Pre	45	16.46	1.85	59.38	44	0.05
Thinking Scale	Post	45	37.31	0.84	67.88		0.02

Table (1) shows that the mean score of the study sample in the post administration of the reflective thinking scale is higher than their mean score in the pre administration of the same scale, where "t-value" is (59.38) which is significant at the (0.05) level of significance. Based on that, the hypothesis of the present study was confirmed.

#### **Discussion**

The findings of the first hypothesis revealed that there was a statistically significant difference between the mean scores of the study sample in the pre and post administrations of the reflective thinking scale in favor of the post administration. Thus, the study sample showed more

development in their reflective thinking skills in the post assessment than in the pre assessment and the t-value was significant at (0.05) level. This proved and confirmed the hypothesis of the present study statistically.

The present study focused on developing EFL prospective teachers' reflective thinking skills through the incorporation of the Facebook-delivered writing activities. Different writing activities, tasks, exercises were presented to students through Facebook in order to develop their reflective thinking skills. The writing activities, tasks, and exercises helped the EFL prospective teachers to think over what they have been writing and consider alternative ways of doing it, question the way other students do the writing activities and try to think of a better way, reflect on their actions to see whether they could have improved on what they wrote, and re-appraise their writing experience so they can learn from it and improve for their next performance. As a result, the post assessment has indicated that the EFL prospective teachers' reflective thinking skills were developed due to the influence of the Facebook-delivered writing activities.

#### **Conclusions**

Based on the findings of the statistical analysis of the data, it can be concluded that the study participants' reflective thinking skills were developed after the implementation of the Facebook-delivered writing activities. This means that the Facebook-delivered writing activities are effective in achieving the aims of the present study.

To sum up, the Facebook-delivered writing activities developed the EFL prospective teachers' ability to think over what they have been writing and consider alternative ways of doing it, question the way other students do the writing activities and try to think of a better way, reflect on their actions to see whether they could have improved on what they wrote, and re-appraise their writing experience so they can learn from it and improve for their next performance.

#### Recommendations of the Study

In light of the findings of the present study, the following recommendations are suggested:

- 1- Using and implementing Facebook and other web 2.0 tools in training students how to think and reflect when responding to the different learning activities and tasks.
- 2- More attention should be paid to reflective thinking skills as these skills are important for EFL prospective teachers.
- 3- EFL university instructors should clarify the importance of reflective thinking to their students.
- 4- EFL university instructors should encourage their students to apply and use the FacebookOdelivered writing activities.
- 5- Providing faculty laboratories with suitable and required hardware and software to help EFL students and instructors access the internet and use the offered web 2.0 technologies.

#### Suggestions for further Research

Within the delimitations and findings of the present study, the following points are suggested for further research:

- Investigating the effect of other web 2.0 tools on developing reflective thinking skills among university students.
- Finding out the effect of Facebook on developing critical thinking skills among university students.
- Studying the effect of Facebook and the other web 2.0 tools on developing students' attitudes towards reflective thinking.

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