FROM REFLECTIVE TEACHING TO EFFECTIVE LEARNING; A NEW CLASS ORDER

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I think therefore I exist. (Descartes)

ABSTRACT

Reflection has been very fashionable in all parts of teacher education for a number of years. Despite numerous articles, there is little empirical evidence that supports the view that it results in superior teaching practices, especially in EFL context. (Cornford, 2002) The objective of the present study was to explore whether there is a statistically meaningful relationship between the "reflective teaching practices" and the "learning outcomes" of the Iranian EFL students. For the purpose of this study two homogeneous groups of pre-university students were taught the same materials under similar pedagogical conditions by two teachers fundamentally different in their treatment of reflection on teaching practices. In fact, one was a strong supporter of the reflective pedagogy, and the other a total disbeliever in its use and effect on students' learning potential. The students mean score was significantly lower ($p<0.05$) in the disbeliever teacher category (control group) than the mean score of students in the believer teacher category (experimental group). Also, the student satisfaction and support were more significant in the experimental group. All in all, reflective pedagogy contributed significantly to the learning/learner effectiveness. These results demonstrate for the first time the potential contribution of reflection and reflective teaching to the ease and effectiveness of learning on the part of the Iranian EFL students.

KEY WORDS

Reflection: The action of turning back or fixing the thoughts on some subject; meditation, deep or serious consideration. (Oxford English Dictionary, 1994)

Reflective Teaching: Reflective teaching means looking at what you (as the teacher) do in the classroom, thinking about why you do it, and pondering about if it works. (Henderson, 1996)

INTRODUCTION

In the past few years, the phrase reflective teaching has become a "buzz word" in our profession. Reflective teaching is extremely valuable as a stance, a state of mind, a healthy, questioning attitude toward the practice of our profession. The main value of reflective teaching lies in its potential to clarify our thinking. (Bailey et al, 1996) It seems that approximately once a decade a new approach to learning or teaching appears, and captures the attention of practitioners so much that it comes to dominate thinking and research. Reflection and reflective teaching are related approaches that have been very fashionable in teacher education and adult education gatherings for the

past decade in the world. There is a nice quotation from the opening of *"A Tale of Two Cities"*, written by Charles Dickens almost 150 years ago which characterizes the world that many teachers as well as students in schools, institutes, and even some universities now inhabit in Iran and elsewhere:

> *It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way.*

In simple sincere words, the story of TEFL in our country and in most of the others is not very dissimilar to the journey of going direct the other way. And -along some other reasons- this is mostly the result of not thinking before most of decision-making processes in our educational world. Reflection in general, and "Reflective Pedagogy" in particular are the missing elements of our academic realm. Reflective pedagogy necessitates multi-dimensionality, a consideration of "the whole" from all its possible angles. Brown (1994) asserts that becoming bilingual is a way of life. Your whole person is affected as you struggle to reach beyond the confines of your first language and into a new language, a new culture, a new way of thinking, feeling, and acting. Total commitment, total involvement, a total physical, intellectual, and emotional response is necessary to successfully send and receive messages in a second language. Reflective pedagogy is an attempt to understand the learner and the learning/ teaching process as a whole and help the pupils move toward a perfect competency to the extent possible. Furthermore, "Reflective teaching" is a means of professional knowledge development which begins in the classroom. Preparation for working with diverse populations in an ever-changing cultural and global context requires teachers who are knowledgeable, caring, and responsive. (Bailey et al 1996) Therefore, reflective teaching should not be viewed as a simple model whereby a solution is worked out for a problem without addressing the underlying causes of the problem. Rather, it examines the underlying assumptions and becomes a useful model to understand the interaction of dispositions (being), practice (doing), and professional knowledge (knowing). In a nut shell, reflective teaching is a conscious attempt to think before, during, and -of course- after the instruction for the betterment of the end product on the part of the students. At the heart of the model is a cyclical process leading to the construction of meaning. Meaning is constructed when awareness is created (1) by observing and gathering information, (2) by analyzing the information to identify any implications, (3) by hypothesizing to explain the events and guide further action, and (4) by implementing an action plan. (Richards, & Lockhart 1994) The model of reflection incorporates five categories of knowledge. These knowledge bases are centered on knowledge of self, knowledge of content, knowledge of teaching and learning, knowledge of pupils, and knowledge of context within schools and society. They are viewed as essential for what prospective teachers should know and be able to do. (Pennington, 1992) In the present study an attempt is made to empirically test the relationship between reflective teaching and effective learning in an Iranian EFL context.

METHOD

Subjects

The subjects participating in this study were 66 pre-university students. They were selected from among the 98 male pre-university students through taking a standard test (CELT). Such a sample was taken from the students of a non-profit high school. The subjects were divided into two groups randomly: 1) 33 pre-university students which were the representative sample of the students who received instruction from the reflective teacher, (experimental group) and, 2) 33 pre-university students which were the representative sample of the students who were given instruction by the non-reflective teacher as control group.

Instrumentation

Some testing and teaching/learning instruments were used in this study to serve the purpose of the researcher. Testing instruments were: 1) a standard test (CELT) to decide on the general language ability of the subjects as well as to categorize them into two control and experimental groups. 2) a standard achievement test on the materials taught during the 14 weeks (56 hours) of instruction as the fall semester in Iranian high schools and pre-universities. Teaching materials used in the experimental category as indicators of reflective pedagogy were: 1) video and audio recordings of the lessons 2) peer or expert observation checklists 3) students feedback checklists 4) teacher diaries 5) personal communications with experts and colleagues through e-mail, and 6) web- based conferencing with colleagues and experts nationally and internationally. For the control group, the materials and the teaching/ learning procedures were exactly the same as the current teaching practices in average pre-universities nationwide.

Procedure

As it was mentioned before, the purpose of this study was to determine whether reflective pedagogy had any significant effect on the learning outcome of the Iranian pre-university students. To arrive at the answers to this question, the researcher administered a pre-test to the subjects of the study (both experimental and control groups) to evaluate their present language ability. The students were given the instruction orally, although they were printed on the test sheets. A total of 45 minutes was allowed for answering the pre-test.

The next step was to score the pre-test. Since all the items were in multiple choice format, the scoring was objective and easy. Table 1 repots on the results of the pre-test phase.

Table 1. Descriptive Statistics (pretest)

Group	X	SD	V
Experimental	69.95	9.81	96.26
Control	69.40	10.09	101.8

In order to check the homogeneity of the variance of the two groups on the pre-test phase, the F-test is carried out. The F-observed value, (1.06) has a p-value equal to .87. Since this p-value is much greater than .05 it can be concluded that the two groups are homogeneous in terms of their variances. After the homogeneity of the groups was assured, an independent t-test was calculated to compare the experimental and control groups mean scores on the pre-test. Table 2 shows the results of this independent t-test.

Table 2. Independent t-test experimental vs. control Group on pretest

Observed t	Degree of freedom	Critical t
.23	64	2

P< .05

The result shows that there was no significant difference on the pre-test between the performance of the experimental and control groups prior to training because the observed t (.23) is well below the critical t (2). After the pre-test phase finished, the teaching procedure began on the basis of the previously established syllabus for both experimental and control groups.

The treatment which the experimental group received was exactly the same as the treatment received by the control group except for the fact that in the experimental group all possible processes of reflection on action were carried out in order to meet the fundamental principles of reflective pedagogy. In fact, neither the methodology nor any other principles of teaching were different for the two groups. All that was different was the injection of a reflection flair to the experimental classroom flux to see if it could drive the teaching/ learning journey to a better destination or not.

As you know, the teacher should begin the process of reflection in response to a particular problem that has arisen with one of his classes, or simply as a way of finding out more about his teaching. He may decide to focus on a particular class of students or to look at a feature of his teaching - for example how he deals with misbehavior or how he can encourage his students to speak more English in class. To this end, he can resort to a number of techniques. The first step is to gather information about what happens in the class. Here are some different ways of doing this:

1. Teacher diary

This is the easiest way to begin a process of reflection since it is purely personal. After each lesson you write in a notebook about what happened. You may also describe your own reactions and feelings and those you observed on the part of the students. You are likely to begin to pose questions about what you have observed. Diary writing does require a certain discipline in taking the time to do it on a regular basis. (The reflective teacher took 14 notes of what happened in his classes, and tried to study and analyze them in order to use the results for the betterment of his teaching. This was done systematically after every session to be applied for the next sessions.)

2. Peer observation

Asking a colleague to come into your class in order to collect information about your lesson is an asset. This may be with a simple observation task or through note taking. This will relate back to the area you have identified to reflect upon. For example, you might ask your colleague to focus on which students contribute

most in the lesson, what different patterns of interaction occur or how you deal with errors. (The reflective teacher asked two colleagues and one expert to randomly observe three of his classes and report on his weak and strong points. The checklist used for this purpose was adopted from Brown 2001)

3. Recording lessons
Video or audio recordings of lessons can provide very useful information for reflection. You may do things in class you are not aware of or there may be things happening in the class that as the teacher you do not normally see.

Audio recordings can be useful for considering aspects of teacher talk.

- How much do you talk?
- What about?
- Are instructions and explanations clear?
- How much time do you allocate to student talk?
- How do you respond to student talk?

Video recordings can be useful in showing you aspects of your own behavior.

- Where do you stand?
- Who do you speak to?
- How do you come across to the students?

(All in all, five classes were video-recorded and five classes were audio-recorded. The audio and video tapes were carefully studied, and the possible improvements were injected into the next teaching sessions immediately.)

4. Student feedback
Asking your students what they think about what goes on in the classroom can be very helpful. Their opinions and perceptions can add a different and valuable perspective. This can be done with simple questionnaires or learning diaries. (the students in the experimental group were given two questionnaires: the first one was about the teacher behavior, and the second one was about the students interaction.)

After collecting enough information about the students, the teaching/ learning process, and yourself as the teacher, you need to move to the next stage in your reflective pedagogy. The following steps should be followed to arrive at a dependable approach in the educational journey.

1. Pondering
You may have noticed patterns occurring in your teaching through your observation. You may also have noticed things that you were previously unaware of. You may have been surprised by some of your students' feedback. You may already have ideas for changes to implement. (Some examples of the improvements made in the reflective teacher's thinking : 1. Establish good eye contact with your class, 2. Divide your students into small groups in an organized and principled way, 3. Arrange the seating in your class to suit the class activity, 4. Write more legibly on the blackboard, 5. Plan for "thinking time for your

students so they can organize their thoughts and plan what they are going to say or do. 6. Promote an atmosphere of understanding and respect, 7. Begin your class with a simple activity to get your students working together.)

2. Talking
Just by talking about what you have discovered - to a supportive colleague or even a friend - you may be able to come up with some ideas for how to do things differently. If you have colleagues who also wish to develop their teaching using reflection as a tool, you can meet to discuss issues. Discussion can be based around scenarios from your own classes. Using a list of statements about teaching beliefs (for example, pair work is a valuable activity in the language class or lexis is more important than grammar) you can discuss which ones you agree or disagree with, and which ones are reflected in your own teaching giving evidence from your self-observation. This talking can be face to face or through chats and web-based conferencing. (The reflective teacher talked about the potential problems as well as assets with peers and experts through web-based conferencing and face to face conversations.)

3. Reading
You may decide that you need to find out more about a certain area. There are plenty of websites for teachers of English now where you can find useful teaching ideas, or more academic articles. There are also magazines for teachers where you can find articles on a wide range of topics. Or if you have access to a library or bookshop, there are plenty of books for English language teachers. (The reflective teacher read almost 20 different articles and papers as well as a plethora of abstracts from different web sites on reflective pedagogy, critical thinking, cognition, etc.)

4. Asking
Pose questions to websites or magazines to get ideas from other teachers. Or if you have a local teachers' association or other opportunities for in-service training, ask for a session on an area that interests you. (For this purpose, the reflective teacher had personal communications with international experts through e-mail. In these communications different questions were posed by the reflective teacher about the problems arising from the classes and some informative comments were received from the aforementioned experts.)

After 28 sessions of instruction which lasted 14 weeks, a standard achievement test was conducted with the aim of statistically determining whether there was any significant improvement in the language ability of the subjects in the experimental group due to the reflective teaching practices. This was done through calculating and comparing the means of the students in both groups by a statistical technique called t-test. Complete data analyses are given in the next part.

RESULTS

Only a small number of studies have been published that are empirical in nature, and have examined the effectiveness of reflective teaching or practice in achieving the desired objectives of a particular reflective approach. This lack of empirical studies may be attributable in part to those like Gore (1987) who considers that

quantitative methods cannot be used to measure reflective teaching outcomes. Gore's stance reflects a period in which empirical research was frowned upon and the very nature of reflective activity was much in accord with qualitative approaches. Also, there has been a tendency in language teaching to go from one extreme to another: "from teaching formal grammar rules to never teaching grammar rules, from always correcting to never correcting a student's errors, from an emphasis on form to an emphasis on function, and now perhaps from non-reflective teaching to reflective teaching or the other way around! In recent years, mainly due to the development of "teacher development programs" and " student centered approaches" the reflective pedagogy has found a place in the sun. In this article, the researcher adopted the view that creating a reflective atmosphere in the teaching/learning context and thinking about teaching processes and making your students think and help you in this way can result in better teaching practices, and consequently furnish the students mind with Persian carpets and Italian paintings. In other words, reflective teaching practices can contribute to the ease and effectiveness of EFL learning on the part of the Iranian pre-university students. As the result of the study indicated, reflective teaching of the materials for pre-university students had a significant effect on their language ability.

Having compared the pre-test scores and the post-test scores of both groups, the researcher found an increase in the post-test mean score of the experimental group which demonstrated empirically that reflective teaching plays an important role on the improvement of learners' language ability. The descriptive statistics is shown in table 3. This table presents the calculations for mean, standard deviation and variance for both sets of scores on post-test.

Table 3. Descriptive Statistics (posttest)

Group	X	SD	V
Experimental	80.33	8.56	73.27
Control	73.37	9.76	95.25

An independent t-test was also calculated to compare the experimental and control groups' mean scores on the post-test. Table 4 reports on the results of this calculation.

Table 4. Independent t-test experimental vs. control
Group on post-test

Observed t	Degree of freedom	Critical t
3.08	64	2

$P < .05$

The t-observed value (3.08) at (64) degree of freedom, is greater than the critical value of t, i.e. (2). Thus, the null hypothesis as no significant difference between the mean scores of the two groups on the post-test is rejected. This means that the experimental group (X=80.33) outperformed the control group (X=73.37) on the post-test. In non-statistical terms, the reflective pedagogy culminated in a better and more effective learning than the non-reflective teaching and education.

CONCLUSION

According to recent research studies, there is no dependable evidence that clearly establishes that reflective teaching approaches have resulted in superior teaching or learning. That is not to deny in any way that thinking and critical analysis are important. The problem is how to encourage these skills, while still building a solid foundation of technical teaching skills, which have been neglected in many reflective paradigms or even spurned as being technician (e.g. Gore, 1987). Retention of learning, practice and feedback, and developmental stages in teacher learning are important issues regardless of the teacher education paradigms employed. The work of Berliner (1988) on the stages in the development of expertise in teaching would appear to be linked conceptually with some reflective teaching paradigms, especially in relation to the development of problem-solving skills more effectively at proficient and expert levels. There is also reason to believe that the explicit teaching of thinking and analytical skills may assist teachers to become more critical and thoughtful practitioners. It is time to stop assuming that all students, even adults, are in possession of effective cognitive skills that develop naturally and without the need for specific teaching. As with all skill learning, regardless of whether it involves performance skills or cognitive skills, there is a need for programs that train for the desired skills. This must involve modeling of the skills, and involve considerable practice and feedback (Cornford, 1996).

Above all, there is one consistent message that emerges from consideration of the enthusiasm for reflective teaching paradigms. This means that all new paradigms should be assessed in an empirical way before there is wide scale adoption (Houston, 1996). As has been shown with results from empirical studies involving reflection, what may appear to be promising avenues for teacher training may not be effective in even the medium term. Simply rushing to join in a fashion in an uncritical way seems the height of social irresponsibility and a denial of possession of truly critical skills of analysis, which it would be expected that teacher educators and policy makers should possess. (Gore & Zeichner, 1991) In conclusion, the results of this research study proved empirically that reflective teaching approaches were able to bring about superior teaching and culminate in more effective learning on the part of the Iranian pre-university students. Also, the students' cooperation, satisfaction, and support were higher in this group of EFL learners.

PEDAGOGICAL IMPLICATIONS

The result of the present study will be of great interest to language practitioners who are interested in improving the quality of their teaching. Reflective pedagogy is a cyclical process, because once the teacher starts to implement changes, then the reflective and evaluative cycle begins again.

- What are you doing?
- Why are you doing it?
- How effective is it?
- How are the students responding?
- How can you do it better?

As a result of your reflection you may decide to do something in a different way, or you may just decide that what you are doing is the best way. And that is what

professional development is all about, and we are allowed to claim that reflective pedagogy can culminate in effective pedagogy and learning.

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