

# How does Reflection Help Teachers to Become Effective Teachers?

By

**Atilla Çimer<sup>1</sup>, Sabiha Odabaşı Çimer<sup>2</sup>, Gülşah Sezen Vekli<sup>3</sup>**

1: Yrd. Doç. Dr., Karadeniz Teknik Üniversitesi Fatih Eğitim Fakültesi, Ortaöğretim Fen ve Matematik

Alanları Eğitimi Bölümü, Biyoloji Eğitimi Anabilim Dalı, 61335, Söğütlü, Akçaabat, Trabzon, Turkey

2: Doç. Dr., Karadeniz Teknik Üniversitesi Fatih Eğitim Fakültesi, Ortaöğretim Fen ve Matematik Alanları Eğitimi Bölümü, Biyoloji Eğitimi Anabilim Dalı, 61335, Söğütlü, Akçaabat, Trabzon, Turkey

3: Öğr.Gör., Bozok Üniversitesi Eğitim Fakültesi, Erdoğan Akdağ Yerleşkesi Cemil Çiçek Bulvarı, 66200 Yozgat, Turkey

## Abstract

*In this paper, based on the literature on effective teaching and reflection, it has been tried to explain the importance of reflection and reflective teaching for teachers in terms of their contribution to ensure effective teaching in detail. In the rest of the paper, the ways like enhancing teachers' professional learning and knowledge, developing inquiry skills, building theories, increasing a greater self-awareness and leading to change in practice, developing informed action as an opposed to routine action, and developing collaboration among teachers, in which reflection facilitates teachers' professional development in the hope that they become effective teachers are discussed. Finally, the paper concludes by stating that since effective teaching involves more than reflection, reflection and reflective skills may not be the only factors to become effective teachers. Despite to this, reflection should be incorporated into both pre-service and in-service teacher education courses for the purpose of growing effective teachers. .*

**Keywords:** Reflection, Reflective teaching, Reflective teacher, Effective teaching, Effective teacher

## 1. Introduction

Recently, the concept of reflection has been widely used in a variety of different teacher education programs in order to help pre- and in-service teachers in the process of clarifying their ideas about their own teaching practices, and in considering and evaluating those ideas in the hope that they will develop the capacity to evaluate and improve their teaching practices (Schön, 1983, 1987; Clarke, 1994; Gilbert, 1994; Allen and Casbergue, 1997; Beattie, 1997; Placier, 1999; Conway, 2001; Bean and Stevens, 2002; Freese, 2006). Therefore, reflection has become the part of teacher education programs, and such terms as 'reflective teaching', 'reflective practice', 'reflective thinking', 'the teacher as decision-maker' 'the teacher as researcher' and 'the teacher as reflective practitioner' are now widely used in a variety of educational contexts and are informed by diverse theoretical frameworks (Calderhead and Gates, 1993; Bengtsson, 1995; Waks, 1999).

Day (2001) usefully indicates that 'reflection involves the participant in a critique for practice, the values which are implicit in that practice, the personal, social, institutional and broad policy contexts in which practice take place, and the implications of these for improvement of that practice' (p. 2). He emphasises that reflection is necessary for all teachers to maintain their effectiveness by writing: *'Without routinely engaging in reflective practice, it is unlikely that we will be able to understand the effects of our motivations, prejudices, and aspirations upon the ways in which we create, manage, receive, sift, and evaluate knowledge; and as importantly, the ways in which we are influencing the lives, directions, and achievements of those whom we nurture and teach'* (Day, 1999b: p. 229). Therefore, by engaging in reflection, teachers can deal with the uncertainties and unexpected situations in the classroom and school because reflection encourages them to critically appraise themselves, current beliefs and attitudes and their relationships with the students and others in the school (Boud, Keogh and Walker, 1985; Lange,

1990). Teachers can develop new perspectives, new ways of looking at their own actions, and a new awareness or understanding of their own behaviours (Osterman, 1990). Farrell (1998) believes that by allowing teachers to act in a deliberate, intentional manner, reflection helps free them from routine behaviour. In short, by gaining a better understanding of their own individual teaching and practice through reflective practice, teachers can improve their effectiveness (Ferraro, 2000). Therefore, reflection has always been seen as an important part of effective teaching (Korthagen and Wubbels, 1995; Day, 1999a), and considered to be a valuable tool for the development of effective teachers (van Manen, 1991). For this reason, many teacher education programs worldwide try to improve their students' abilities to reflect as this is one of the hallmarks of an effective educator (Bean and Stevens, 2002).

Obviously, the question of whether or not reflection is useful is related to the question of what effective teaching is. It has been defined in various ways over the years (Good, 1996; Muijs, and Reynolds, 2001; Çimer, 2004, 2007; Muijs, 2006). It is defined through describing its benefits for teachers and students. For example, many researchers believe that effective teaching stimulates students' curiosity and active learning, encourages their analytical, logical, and creative thinking and increases both their desire and capacity for future learning (Quicke, 1992; Hopkins, 1999; Mills and Satterthwait, 2000). There is a considerable amount of literature on the characteristics of effective teaching and teachers (Perrott, 1982; Brophy and Good, 1986; Yates and Yates, 1990; Silcock, 1992, 1993; White and Burke, 1993; Analoui, 1995; Calderon, Gabbin, and Green, 1996; Wubbels, Levy and Brekelmans, 1997; Osborne, 1998; Harris, 1995; McLaughlin, 1999; Muijs and Reynolds, 2000, 2001; Çimer, 2004, 2007; Yates, 2005; Gurney, 2007; OECD, 2009). They all agree that effective teaching requires teachers to possess good knowledge of subject matter, high realistic goals, clear standards for classroom behaviour, positive interactions with their students, the capacity to select and use suitable material for the course/curriculum, a variety of teaching strategies and approaches, and appropriate pedagogical methods; the skills to present skilfully the material in ways to meet students' needs; to monitor students' progress and to provide feedback and opportunities for students to apply what they have learned; to use effective questioning techniques and a variety of assessment strategies; to have personal and interpersonal qualities including sensitivity, sympathy, caring, flexibility, enthusiasm, encouragement, patience, and humour; and to allow students freedom by listening to them and foster the diverse voices of students and give them responsibility. It is believed that the interaction of these qualities provides a foundation for a good teaching creating an effective learning environment.

Furthermore, effective teaching requires teachers to continuously engage in reflection and inquiry into their practice (Harris, 1998). Similarly, Moran and Dallat (1995) emphasised that a crucial determinant of effective teaching is the quality of reflective teaching. Therefore, many researchers (Zeichner, 1983; Leithwood, 1990; Knowles, 1993; Leahy and Corcoran, 1996) consider effective teachers as reflective teachers who examine carefully and regularly their own practices, beliefs, values; identify the options available; consider their own values as a professional; and make conscious choices about how to act in order to strengthen the quality and effectiveness of their work. Therefore, this paper will try to explain the question "how does reflection help teachers to become effective teachers based upon the literature on reflection and effective teaching? For this purpose, first it will try to define reflection and then, try to explain the benefits of reflection in terms of effective teaching and teachers. Finally, it will conclude a brief summary of the paper.

## 2. What is reflection?

The slogan of reflection and reflective practice has been embraced by many teachers, teacher educators and educational researchers all over the world within the last two decades (Schön, 1983, 1987; Elbaz, 1988; Day, 1993; 1999b; Eraut, 1994; Hatton and Smith, 1995; Zeichner and Liston, 1996; Newman, 1999; Freese, 2006). Although reflection is defined and interpreted by different academics and researchers differently, they all accept that it is a desirable attitude and practice to improve one's practice and learning (Cole, 1997; Freese, 1999).

The reflective approach draws on Dewey's (1933) and Schön's (1983; 1987) works. Dewey (1933) originally defined reflection as the *'active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends'* (p. 9). He referred to reflection as a form of thought growing from puzzlement felt in directly experienced situation, and an important aspect of learning from experience. He maintained that reflective thinking leads practitioner to act in a deliberative and intentional fashion rather than in a blind and impulsive manner. Similarly, Williams (1998) sees reflection as *'a theory of metacognition which directs skilled behaviour during professional activity or assists in the deliberative processes which occur during problem solving'* (p. 31). Indeed, how people think and reflect upon prior experiences can influence their following professional activities. Seeing reflection as an activity for exploring experience and learning from it, Boud *et al* (1985) define reflection as *'a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciation'* (p. 19). In short, in reflection, people recall, consider and evaluate their experience usually in relation to improve their practice and to deepen their understanding of that experience (Richards, 1990).

Schön (1983) distinguishes between reflection-in-action and reflection-on-action. He asserts that *'some of the most interesting examples of reflection-in-action occur in the midst of a performance'* and can be described by *'phrases like thinking on your feet, suggesting.... that we can think about something while doing it'* (p. 54). He further states that reflection-in-action is a reflective conversation with the materials of a situation. Similarly, van Manen (1991) defines reflection-in-action as an active or interactive reflection which *'allows us to come to terms with the situation or problem with which are immediately confronted. This stop-and-think type of reflection permits us to make decisions virtually on the spur of the moment'* (p. 512). Therefore, reflection-in-action is considered as the process of thinking about something while doing it (Schön, 1983, 1987; Kirby and Teddlie, 1989; Day, 1993, 1999a, 1999b). It includes moment-to-moment monitoring of action and making immediate adjustments to developments in the situation. Through reflecting on the current situation and prior knowledge, the practitioner carries out a kind of experiment in her/his mind, which serves to generate a new understanding of the phenomena and a change in the situation. In other words, in reflection-in-action, the practitioner brings her/his professional knowledge in a problem or new situation while making decisions in that situation.

Reflection-in-action can reduce the danger of forgetting what actually happened during the action and so, teachers can improve their teaching in the lesson rather than waiting until a future one (Beck and Kosnik, 2001). They can be more realistic about the circumstances and get just the right standing in their solutions through immediate feedback while engaging in reflection-in-action. Schön's reflection-in-action provides a compelling conceptualisation of the spontaneous intuitive performance of the skilled practitioner. It does not, however, provide a clear description of how that performance might be modified to meet new concerns and expectations. Most attempts directed at assisting teachers to modify existing practice involve a more deliberate after reflection on events referred to as reflection-on-action. Therefore, it can be argued that reflection-on-action refers to thinking about a specific action or event outside of its occurrence and it is a deliberative action (Schön, 1983, 1987; Kirby and Teddlie, 1989; Day, 1993, 1999b). Day, (1999a) sees it as *'a more systematic, considered process of deliberation enabling analysis, reconstruction and reframing in order to plan for further teaching and learning'* (p. 28). It includes a kind of metacognition or thinking about the thoughts and reflections that teachers have been doing for the action (Williams, 1998). Unlike reflection-in-action, which is an individual action, reflection-on-action can provide opportunities for collaborative teaching and planning for future activities because it includes planning and talking with others (Day, 1999a).

In reflection-on-action, teachers reflect back on particular events, their strengths, weaknesses and whether they used appropriate teaching approaches by analysing where difficulties arose, considering how they might be overcome, and deciding on the future directions their teaching might take (Butler, 1996; Pinsky,

## How does Reflection Help Teachers to Become Effective Teachers?

Monson, and Irby, 1998). At the end, new learning may occur and teachers may gain personal knowledge about the problem situation or experience.

Many researchers emphasise the importance of being critical in the reflective process (Carr and Kemmis, 1986; Bartlett, 1990; Brookfield, 1995; Hatton and Smith, 1995; Dinkelman, 2000). Critical reflection involves questioning the broader structures of society and challenging the status quo (Adler, 1991; Wellington and Austin, 1996). It allows teachers to stand outside their practice and see what they do from a wider perspective and consider alternative ideas and practices which take into account of the dynamics of power embedded within schools and classrooms (Nicholas, Tippins, and Wiesemen, 1997). It requires teachers to reflect on practice with an understanding of and a willingness to confront big and complex issues of power and politics in schools (Ghaye and Ghaye, 1999). However, if teachers reflect upon their experience without being critical, their experience might become an unreliable and sometimes dangerous guide for giving advice. Such a reflection may not address social, historical, or political problems of educational system. As a result, it is very unlikely that teachers can be truly professional. For this reason, the ability to reflect critically upon practice is a major criterion of teachers' reflectivity and central to teachers' development (Russell, 1993; Day, 1999a, 2001; Holliday, 1999).

During reflection, teachers engage in a problem-solving activity, which increases their effectiveness (Day, 1999b; Jay, 1999). Schön (1983) argues that in professional practice, there is an emphasis on problem solving. The problem here may include any 'puzzling, or troubling, or interesting phenomenon with which the individual is trying to deal' (Schön, 1983: p. 50). Such problems may be specific and explicit, as when teachers know that the curriculum is not making for their students and find that they need to make a change. Alternatively, problems may be vague or implicit, as when teachers feel a resistant tone from students but do not know the reason (Jay, 1999). Once the problem has been defined, teachers can make sense of it by reflecting on or thinking about the situation (Schön, 1983). Through reflective process, a teacher breaks her/his personal actions into individual parts and comes to a greater understanding of her/his action. Then, s/he can reinterpret and reframe her/his experience from a different perspective (Munby and Russell, 1989; Geddis, 1996). These involve use of what Schön called an exemplar. Reflective teachers use a repertoire of exemplars to frame new situations. When they confront with a problem situation, they focus on some aspects of the situation shared with one of the exemplars they have dealt with successfully in the past. In the light of these exemplars, teachers can surface their implicit problems, assumptions and beliefs that they often do not even realise that they exist (Jay, 1999) and can frame the new situation. As a result of this process of framing and re-framing, teachers may have a variety of strategies and a deeper understanding of their own teaching style and ultimately, greater effectiveness as a teacher (Ferraro, 2000). Furthermore, through this type of problem solving, teachers might enrich their discussions of practice and enhance the opportunity for professional development and growth (Kruse, 1997).

It is generally accepted that reflection is essential for and leads to the professional development and growth of teachers (Schön, 1983, 1987; Hargreaves, 1995; Day, 1999b, 2001; Wood and Bennett, 2000). Cruickshank, Kennedy, Williams, Holton, and Fay (1981) indicated that without systematic reflection on practice, a full professional development is unlikely to happen because reflective teaching offers promise of an alternative conceptualisation that appropriately recognise thoughtful and professional aspects of teachers' work (Calderhead and Gates, 1993).

Effective teaching requires teachers to be professionals and professional development through reflection is necessary as we live in an increasingly complex world in which individual problems require particular rather than generalised responses (Schön, 1983; Silcock, 1992; Preston, 1996). Day (2001) clearly emphasises the importance of continuing professional development for teachers: "*Continuing professional development is essential if teachers are to remain up to date in their knowledge of the curriculum, wise in their selection and use of a repertoire of pedagogical skills, committed and enthusiastic about their work and the students they teach, self confident, and clear about their purposes*"

(p. 1). For teachers, the need for being a professional comes from the complex diversity of students, objectives, and contexts because in many countries, classrooms now have students from different cultural and socio-economic backgrounds. In addition, teaching is always an uncertain profession in which teachers are called upon to respond pedagogically to unexpected events despite the importance of good planning (Carson, 1995). Therefore, teachers as professionals can no longer rely on accepted body of knowledge as being applicable to the diverse student challenges, which they meet, and there can be no pre-determined one right answer and sufficient application of knowledge, technique, ideologies and materials any more (Silcock, 1992). Rather they must consider a response to each individual problem in relation to the ends they hope to achieve and the means, which are available for this response. Teaching requires teachers to go beyond the exercise of craft skills to diagnose problems, evaluate possible responses and adopt a chosen course of action (Bennett, 1995). It also requires them to be creative, imaginative, knowledgeable and sensitive to the diverse needs and interests of the students. For these reasons, it is strongly believed that teachers should engage in reflection in order to become effective and professional teachers.

However, there are some factors affecting teachers' reflection such as teachers' emotions and working conditions. Hargreaves (1998) considers teaching as an emotional practice. Therefore, it can be argued that emotions have significance for reflection as well because they can colour our learning, understanding and decisions (Osterman and Kottkamp, 1993). Day (1999a) stresses the importance of emotion in reflection by writing '*To ignore the place of emotion in reflection, in, on, and about teaching and learning is to fail to appreciate its potential for positively or negatively affecting the quality of the classroom experience for both teachers and learners*' (p. 33). Indeed, teachers may have both positive and negative emotions that affect their willingness and ability to reflect on and to learn from their practice, beliefs and values. Even though our emotions and feelings are a significant source of learning, they can also at times be barriers and thus, emotions may hinder reflection as well (Boud *et al*, 1985). Therefore, in order to foster reflective practice in schools, teachers' emotions and the working conditions or contextual factors, which have a direct effect on those emotions, should carefully be taken into account by schools.

The working conditions within schools can sometimes create negative emotions such as anxiety, helplessness, loneliness, lack of trust, fear and hostility which make reflection impossible (Cole, 1997). These feelings are promoted by some institutional factors such as '*large class sizes, unreasonable curricular and other professional demands, lack of resources and supports, and numerous and persistent outside interference*' (Cole, 1997: p. 15). Therefore, support and challenge in schools are also very important for teachers to reflect on their practice.

Since reflective practice is seen as a complex and intellectually challenging activity (Golby and Appleby, 1995), its success is dependent on not only the skills of the reflective practitioner but also the quality of support provided by the learning environment. The quality of the learning environment in which teachers are empowered to reflect on their practice is a vital determinant for reflective practice (Moran and Dallat, 1995). Since reflection may involve challenging deeply hold beliefs, attitudes and values, teachers need an active, planned and skilled challenge and support (Griffiths, 2000). When teachers reflect by themselves, their interpretation of actions might be more intuitive than interpretative because people bring with them the beliefs and assumptions that define their educational values (Moran and Dallat, 1995). Furthermore, it is generally difficult to leave out personal prejudices when making objective decisions. Therefore, teachers need to be supported by the skilled practitioners who can assist with teachers' analytic reflection and can reflect, analyse, and dialogue about their own practice. These skilled practitioners can be *critical friends* (Golby and Appleby, 1995; Day, 1999a). Hatton and Smith (1995) indicate that reflection is most likely to be demonstrated when strategies involving critical friends or collaborative discussion in a supportive and trusting environment are adopted. Therefore, if schools want to foster reflective practice in the workplace or the classroom, they must create an environment that



values communication, participation, and the ability to openly discuss problems without fear of embarrassment.

The rest of the paper will discuss the ways in which reflection facilitates teachers' professional development in the hope that they become effective teachers. These includes enhancing teachers' professional learning and knowledge, developing inquiry skills, building theories, increasing a greater self-awareness and leading to change in practice, developing informed action as an opposed to routine action, and developing collaboration among teachers.

### ***Generating Professional Learning and Knowledge***

Reflection can help teachers to become lifelong learners as they can continuously generate and store personal knowledge through engaging in the reflective process (Butler, 1996). Since reflective process puts teachers at the heart of the learning process, teachers have the responsibility for their own growth and learning (Dewey, 1933; Lindop, 1985; Zeichner, and Liston, 1987; Bengtsson, 1995; Jacob, 1995; Pollard and Triggs, 1997; Odabaşı Çimer and Çimer, 2012). In order to demonstrate how reflection facilitates teachers' professional learning and generates professional knowledge, experiential learning theory will be used as a base for the argument of this paper. It is believed that as a critical step in professional development, reflection is as an important part of this learning theory (Kolb, 1984).

The theoretical conceptualisation of experiential learning theory involves Dewey's ideas. Dewey (1933) states that growth comes from a '*reconstruction of experience*' (p. 87). Therefore, experiential learning theory holds the idea that learning is dependent on the integration of experience with reflection. It puts reflection at the centre of learning process. Based on this theory, it can be argued that by reflecting on their own experience, teachers as learners can construct their own educational perspectives and gain new insights from that experience and develop new strategies to use in subsequent teaching (Kolb, 1984; Boud *et al*, 1985; Osterman, 1990; Reiman, 1999).

Experiential learning theory is based on '*a four-stage dialectic and cyclical process experience, observation and reflection, abstract reconceptualisation, and experimentation*' (Osterman and Kottkamp, 1993: p. 20), as shown in Figure 1. The learning begins with a problem, unexpected event or a troublesome experience. Then, the reflective teacher steps back to examine her/his experience and describe the problem by asking herself/himself "*What was the nature of the problem? What were my intentions?*" or "*What did I do?*" The process of observation and reflection requires the teacher to act as a researcher. S/he first monitors and observes the problem and then, collects data about it including beliefs, values, intentions, attitudes, feelings, ideas and actions of both themselves and the students (Osterman, 1990). Then, s/he critically analyses and evaluates this data in order to make decisions and judgements on them.

In the third stage of the learning cycle, the teacher considers alternative ways of thinking and acting. It includes an active search for new information, techniques or process to address the problem. S/he aims at developing alternative hypothesis to explain the events and guide for her/his action. In the final stage of the learning cycle, the teacher makes a conscious decision to act in a certain way to test these new theories, assumptions and knowledge through experimentation. This stage completes the cycle and starts another. The next cycle starts and profits from the earlier cycle whether it focuses in a more detailed way on the same problem or another (Kolb, 1984; Osterman and Kottkamp, 1993). Therefore, learning and professional development become a progressive and continuing process. This makes teachers lifelong learners.

In short, in the process of experiential learning, experience is transferred into improved knowledge and skills, and teachers might become aware of not only **what** was successful, but also **why** it was successful (Butler, 1996; Pinsky *et al*, 1998). A teacher can gain at least three competencies (Pollard and Triggs, 1997): empirical competencies which refer planning a research and collecting data; analytical

competencies which is about how to interpret the data; and, evaluative competencies which include making judgements about the educational consequences of the results of a practical inquiry. By using the data, the teacher can analyse the sequence of events to confirm or disconfirm the new hypothesis (Osterman and Kottkamp, 1993). This confirmation reinforces the new theory. The section that follows explains how reflection contributes to the development of these theories in detail.

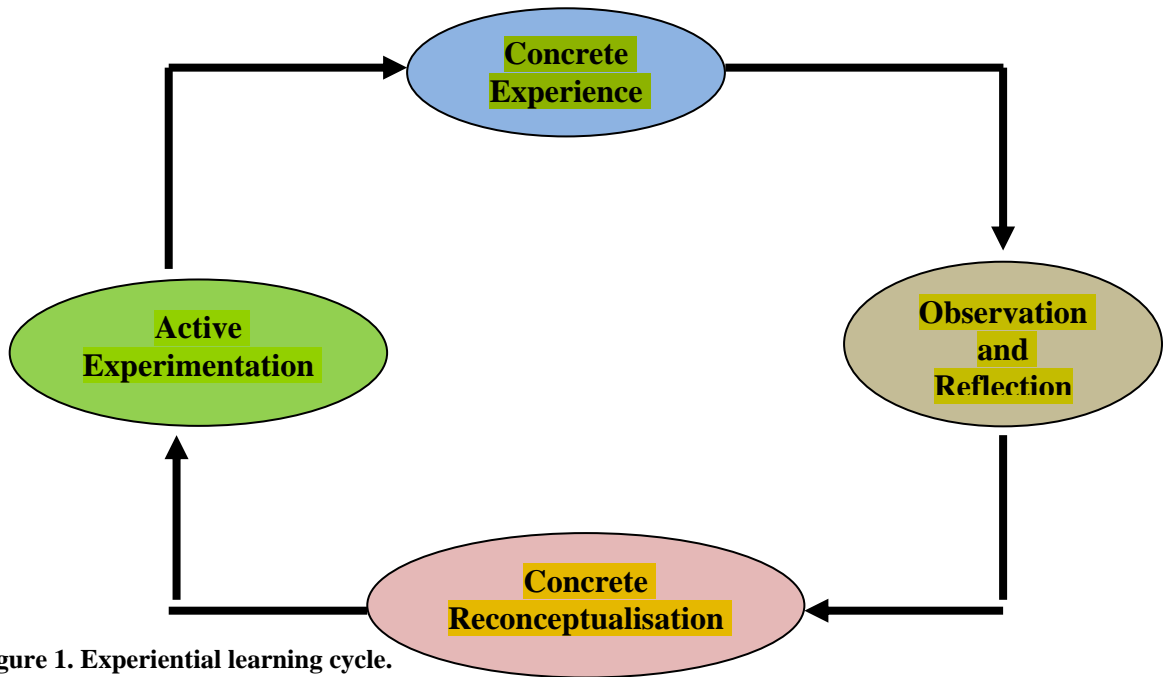


Figure 1. Experiential learning cycle.

### ***Reflection and Developing Theory***

The process of reflection can be considered as a form of educational theorising because in reflective process, teachers make more conscious and articulate their implicit, practical theories explicit in and subject them to the other's criticism (Francis, 1995). Describing the process of "theory building" Schön (1983) says that 'reflection on the unexpected results of experiment leads to theory or to invention' (p. 181). Such theory is fundamental to practice because it provides teachers with 'springboards for making sense of new situations' (p. 317). As a consequence of deliberative and critical analysis of their ideas about teaching as a form of action based on their changed understandings (Bartlett, 1990), teachers may generate a unique personal theory to explain students' problems and to provide a guide to remedial action (Bennett, 1995). Therefore, skilled teachers can make use of dozens of theories, concepts or principles while teaching. These theories might be highly valuable tools for improving teaching and learning practices because they offer teachers own perspectives on teaching and learning that cannot be provided from theories proposed by outsiders to school (Osterman, 1990; Russell, 1993; Zeichner and Liston, 1996). Furthermore, these theories may allow teachers to use new and imaginative solutions to problems and generate testable propositions that can be investigated in teaching practice (Bennett, 1995).

### ***Developing Inquiry Skills***

It is believed that reflective teaching can help teachers develop their inquiry skills (Adeyemi, 1996) because as Day (1999a) indicated, reflection takes place at the centre of the inquiry. He writes 'it involves critical inquiry into moral, ethical, political, and instrumental issues embedded in teachers' everyday thinking and practice' (p. 4). By engaging in inquiry, teachers aim '...not only at understanding themselves better as teachers but also at improving their teaching' (Day, 1999a: p. 22). Reflection asks

## How does Reflection Help Teachers to Become Effective Teachers?

teachers to consider the entire picture of their teaching and to analyse the effectiveness of a lesson or a series of lessons in terms of not only simply by measurable outputs such as students' exam scores, but through an attempt to explore the nature of the teaching and learning process that are taking place and to evaluate what was learned, by whom, and how learning might become more effective in the future (Schuster, 1998; Moore, 2000).

As a result of engaging in reflective teaching, teachers can gain inquiry skills. They might also become effective teachers because effective teaching requires teachers to have not only a knowledge of subject matter, students and their learning needs, and the use of a variety of teaching techniques (Day, 1999b) but also the investigative or inquiry skills in order to examine continuously their practice, their students' learning problems, and to respond immediate problems occurred while teaching to improve teaching. Otherwise, it seems a little inappropriate to suggest that teachers who have not experienced inquiry in their lives will be able to create classroom settings in order to educate students who are able to question, to pose and solve problems, and self-directed learners. Having inquiry skills can help teachers enhance the understanding and awareness of their practices, beliefs and values. The contribution of reflection to the development of self-awareness will be discussed next.

### *Increasing Self-awareness*

Reflective teaching can be seen as a means by which teachers can develop a greater level of self-awareness about their actions and behaviour while teaching (Osterman, 1990; Bengtsson, 1995; Convery, 1998). Since teaching often reflects an unquestioned acceptance of values, norms, and practices defined by others about what is in the best interest of students and teachers, and a lack of awareness of alternative practices (Brookfield, 1995), teachers mostly act without knowing why they do what they have been doing. In other words, they may not be aware of the reasons behind their actions. In order to be an effective teacher, teachers should be aware of their values, norms and practices. Reflection challenges teachers to discover and uncover their assumptive worlds including their personal and professional experiences, practical theories, beliefs, values or behaviours (Bartlett, 1990; Francis, 1995; Briscoe, 1996), which preserve the inadequacies of the current system and prevent the introduction of new and better approaches to education. It encourages *'teachers to make their implicit theories and knowledge explicit and compare them with openly acknowledged or espoused theories'* (Williams, 1998: p. 31). In other words, reflection, asks them to describe specific experiences in their teaching, and subject their own actions to critical assessment while identifying and framing issues of classroom practice (Kruse, 1997). By asking questions themselves about their own actions such as *"What am I doing? Why? With what effect?"*, teachers may establish connections between what is happening in a specific context and their broader beliefs (Florez, 2001). In other words, there may not be a gap between the learning and teaching strategies they use and their values, beliefs and assumptions about learning.

All these activities through reflection may lead to an increased self-awareness and a high level understanding of their implicit theories. Therefore, teachers can know and think what they do and believe. In addition, they can appreciate their own experiences in teaching and learning, and identify similarities and differences between their problems and actions as a source of knowledge upon which they can draw in making teaching decisions (Bryan, Abell and Anderson, 1996). They become aware of the contradictions between what they do and what they hope to do, and of the social and political implications of actions developed in the reflection of the classroom. They may also become curious and innovative in their teaching, and take risks in how they deliver the curriculum and deal with teaching challenges. By gaining a better understanding of their own individual teaching styles through reflective practice, teachers can improve their effectiveness (Ferraro, 2000).

Furthermore, they can make healthier and more realistic appraisal of their own role in students' learning, and can develop a more accurate understanding of the cultural and political limits for the purpose of increasing students' enthusiasm for learning. This can in turn provide them with confidence and flexibility in their teaching, planning and organisation, and setting good relationships with students and



other colleagues (Wubbels and Korthagen, 1990; Beck and Kosnik, 2001). It is strongly believed that having an increased self-awareness and confidence through reflective practice can turn teachers' attention away from their deficiencies and toward enhancing their skills and talents. In other words, their problems become a challenge to seek to new and better ways, and to create knowledge instead of a sign of failure (Osterman, 1990).

Having high level self-awareness through reflection also helps teachers to make better decisions because teachers who have a high level of self-awareness do not rely either on instinct alone or on pre-packed set of techniques. Instead, they think about what is taking place, what the options are in a critical and analytical way. This helps them make conscious choices about how to act in order to strengthen the quality and effectiveness of their work. (Reagan, 1993; Adeyemi, 1996). Therefore, it can be claimed that reflection prevents teachers to make poor decisions and bad judgements in the light of evidence and appreciate the basis on which those judgements are made (Quicke, 1996).

By providing these characteristics to teachers, reflection contributes to them in the way of becoming effective teachers because having a high level of awareness is one of the qualities that make teachers effective (Gibbs, 1999; Willems and Clifford, 1999). Moreover, it is believed that this increased self-awareness can provide the motivation to change (Osterman and Kottkamp, 1993, Pennington, 1995). Therefore, the following part will discuss how reflection and awareness lead to change.

### ***Reflection and Change***

There is an agreement that reflection is one of the essential conditions for change in schools (Day, 1999b; Griffiths, 2000). As Osterman (1990) indicates, reflective practice challenges teachers to become personally and actively involved in the creation of better schools and to examine the ideas, which shape schools. Since it is a dynamic process seeking to advance the quality of professional practice, it seeks not only expand knowledge and develop ideas about how to do things more effectively but to achieve meaning and to use that meaning to transform action. This is very important for change in schools. Therefore, if schools want to change, they must become workplaces that respond to teachers' needs, support professional growth and enable them to act as reflective practitioners who can examine their ideas and actions openly, critically and collaboratively.

Reflective practice holds a more optimistic perspective toward change because it facilitates changes in teachers' implicit and explicit theories about their practice and schools (Osterman and Kottkamp, 1993). After many years in teaching profession, much of experienced teachers' practice becomes '*automated or intuitive, dependent on understandings that are not usually articulated, that learning for them is dependent on bringing to consciousness and examining the assumptions and considerations which make sense of their actions as teachers*' (McLynre, 1993: p. 43). In order to change such practice for the purpose of improvement, teachers should make fundamental changes in their personal theories, beliefs, values and feelings about teaching and learning (Carr and Kemmis, 1986) and make them explicit (Kroath, 1989). Since reflection requires teachers to think critically about their practice, values, beliefs, and personal, social, and institutional contexts in which they work (Wellington and Austin, 1996; Day, 2001) and also, provides them with an increased awareness of their habitual patterns of behaviour, the assumptions that shape their behaviour and the impact of their actions, they might change these theories (Pennington, 1995; Holliday, 1999; Munro, 1999). Through changing practices, reflection can help teachers develop and engage in an informed action, which will be discussed in the next part.

### ***Developing Informed Action versus Routine Action***

Reflection can enhance teachers' effectiveness through developing an informed action as opposed to routine action because it is believed that reflection aims at supporting a movement from routinised actions rooted in common sense thinking to reflective action stemming from professional thinking (Pollard and Triggs, 1997). According to Dewey (1933), routine action is guided by such factors as tradition, habit, and authority and by institutional definitions and expectations. Therefore, it is relatively static and

unresponsive to changing priorities and circumstances. After doing the same thing for many years, teachers might say that they know what is going on in their classrooms and they can fall into the habits of justifying what they do by reference to unchecked common sense, and of thinking that the unconfirmed evidence of their own eyes is always accurate and valid. However, experience alone may not be sufficient to create growth. Brookfield (1995) indicates that ten years of practice might be one year worth of distorted experience repeated ten times. The experienced teacher may be caught within self-fulfilling interpretative frameworks that remain close to any alternative interpretations. Therefore, it can be argued that without reflection, length of experience does not automatically give insight and wisdom and thus, one can run the risk of relying on routinised teaching and not developing (Reiman, 1999; Hopkins, 1999). In relation to developing informed action, Schön (1983) says: *'Through reflection, he can surface and criticise the tacit understandings that have grown up around the repetitive experience of specialised practice and can make new sense of the situations of uncertainty or uniqueness which he may allow himself to experience'* (p. 61). Indeed, reflecting on practice can prevent teachers to engage in routinised actions and they can remain in control over their practice, and their practice *'does not remain at a standstill but is open to challenge and review'* (Williams, 1998; p. 31). In addition, they can develop alternative perspectives and behaviours. The following part discusses the relationship between reflection and collaboration among teachers.

### **Reflection and Collaboration**

It is argued that reflective practice can enhance professional growth and development by facilitating dialogue among teachers because *'reflection occurs in a collegial environment encouraging social responsibility, flexibility, consciousness and efficacy'* (Newell, 1996: p. 568). This dialogue can, in turn, establish a basis for understanding, caring, and co-operation in schools because the process of describing one's own experience increases opportunities for communication and collaboration between them. Furthermore, defending one's ideas in a group encourages consideration of the underlying reasons and principles of one's beliefs. Group members encourage their colleagues to back up their arguments (Newell, 1996). Regarding developing collaboration through sharing problems, Osterman (1990) indicates that *'Problems become, not dirty linen to be kept from the public's view, but opportunities for dialogue, learning and change'* (p. 140). This leads teachers not only to have new knowledge but to understand others as well as to understand themselves in terms of their wisdom, strengths and needs. Through reflection and communication focused on common professional concerns, each others' ideas become less strange, and the search for new and better ways of achieving professional goals becomes a common and collaborative process rather than that an isolated and individual effort. At the end, the group can achieve a vision richer than any individual could achieve alone (Belenky, Clinchy, Goldberger and Tarule, 1986).

In short, reflective practice recognises the importance of dialogues for learning, stresses the importance of collaborative effort toward common goals and calls for teachers to be active learners in the learning process and be creators of knowledge instead of being passive recipients of knowledge. Therefore, it can be argued that this collaborative action through reflection makes teachers effective because effective teaching requires teachers to have various high level cognitive and social capabilities such as communicating and working in teams (Preston, 1996).

### **3. Conclusions and Suggestions**

In this paper, based on the literature on effective teaching and reflection, it has been tried to explain the importance of reflection for teachers in terms of its contribution to effective teaching. It began by asking *"how does reflection help teachers to become an effective teacher?"*

It has been seen that reflection is an essential part of teachers' professional development because it calls teachers for ongoing exercise of their intellect, responsibility and professionalism. It promotes deliberative action in planning and implementing instruction and ongoing engagement with theory and

supports growth in professional knowledge and learning as reflective teachers become more aware of their own actions, more skilled in the use of evidence, more knowledgeable both in teaching and about teaching and more able to identify and analyse the consequences of their actions. By gaining a better understanding of and a high level of self-awareness of their own individual teaching styles through reflective practice, teachers can improve their effectiveness. Furthermore, the reflective process enables teachers to share their experiences and problems. This can in turn increase the opportunities for collaboration among them. As a result, it can be claimed that teachers who do not reflect upon their practices might be terribly ineffective because they may not know why they do what they have been doing.

However, it has also been realised that reflection and reflective skills may not be the only factors to become effective teachers. In other words, reflective teachers may not be necessarily good teachers. Effective teaching involves more than reflection. It requires teachers to possess many qualities as mentioned earlier besides reflection. Therefore, reflection can not be the only condition for effective teaching. For example, a teacher can reflect on his/her practice but may not be able to set appropriate relationships with students or to invite students to participate in the lesson or do not have enough subject matter knowledge. So, it is believed that when all these qualities come together, teacher could form the whole picture of the characteristics of an effective teacher. Despite to this, teacher education programmes at all levels (pre-service and in-service) should integrate reflection in their courses. This can be done through either putting a separate course on reflection and reflective teaching or diffusing reflection and reflective teaching applications in to the whole programme courses in order to develop student teachers' and practising teachers' reflective skills and practices. This is so important for growing professional teachers as student teachers expect teacher educators to offer constructive criticism and to share ideas with them and to provide such opportunities and support that they can experiment and develop teaching strategies on their own initiative (Odabaşı Çimer and Çimer, 2012).

## References

- Adeyemi, M.B. (1996). The relative effectiveness of the reflective and lecture approach methods on the achievement of high school social studies students. *Educational Studies* 18. 1: 49-56.
- Adler, S. (1991). The reflective practitioner and the curriculum of teacher education. *Journal of Education for Teaching* 17: 139-150.
- Allen, R.M. & Casbergue, R.M. (1997). Evolution of novice through expert teachers' recall: implications for effective reflection on practice. *Teaching and Teacher Education* 13. 7: 741-755.
- Analoui, F. (1995). Teachers as managers: an exploration in to teaching styles. *International Journal of Educational Management* 9. 5: 16-19.
- Bartlett, L. (1990). Teacher development through reflective teaching. In J. Richards and D. Nunan (eds.) 1990. *Second Language Teacher Education*. New York, Cambridge University Press: 202-214.
- Bean, T. W. & Stevens, L.P. (2002). Scaffolding Reflection for Preservice and Inservice Teachers, *Reflective Practice*, 3,2: 205-214
- Beattie, M. (1997). Fostering reflective practice in teacher education: inquiry as a framework for the education of a professional knowledge in teaching. *Asia-Pacific Journal of Teacher Education* 25. 2: 111-129.
- Beck, C. & Kosnik, C. (2001). Reflection-in-action: in defence of thoughtful thinking. *Curriculum Inquiry* 31. 2: 217-227.
- Belenky, M.F., Clinchy, B.M., Goldberger, N.R. & Tarule, J.M. (1986). *Women's Ways of Knowing: The Development of Self, Voice and Mind*. New York, Basic Books.

## How does Reflection Help Teachers to Become Effective Teachers?

- Bengtsson, J. (1995). What is reflection? On reflection in the teaching profession and teacher education. *Teachers and Teaching: Theory and Practice* 1.1: 23-32.
- Bennett, N. (1995). *Managing Professional Teachers: Middle Management in Primary and Secondary Schools*. London, Paul Chapman Publishing.
- Boud, K., Koegh, R., & Walker, D. (1985). Promoting reflection in learning: a model. In K. Boud, R. Koegh, & D. Walker, (eds.) 1985. *Reflection: Turning Experience in Learning*. London, Kogan Page: 18-40.
- Boud, D. & Knights, S (1996). Course design for reflective practice. In N. Gould, & I. Taylor, (eds.) 1996. *Reflective Learning for School Work* Aldershot: Arena: 23-34.
- Briscoe, C. (1996). The teacher as learner: interpretations from a case study of teacher change. *Journal of Curriculum Studies* 28. 3: 315-329.
- Brookfield, S. (1995). *Becoming a Critically Reflective Teacher*. San Francisco, Jossey-Bass.
- Brophy, J. & Good, T.L. (1986). Teacher behaviour and student achievement. In M.C. Wittrock (ed.) 1986. *Handbook of Research on Teaching* (3<sup>rd</sup> Ed.). London, MacMillan: 328-375.
- Bryan, L. A., Abell, S. K. & Anderson, M.A. (1996). Coaching reflective practice among preservice elementary science teachers. Paper presented at the Annual Meeting of the Association for the Education of Teachers in Science. <http://www.ed.psu.edu/CI/journals/96pap27.htm>.
- Butler, J. (1996). Professional development: practice as text, reflection as process, and self as locus. *Australian Journal of Education* 40. 3: 265-283.
- Calderhead, J. & Gates, P. (1993). Introduction. In J. Calderhead & P. Gates (eds.) 1993. *Conceptualising Reflection in Teacher Development* (1993). London, The Falmer Press: 1-9.
- Calderon, T.G., Gabbin, A.L. & Green, B.P. (1996). Summary promoting and evaluating effective teaching. *Journal of Accounting Education* 14. 3: 367-383.
- Carr, W. & Kemmis, S. (1986). *Becoming Critical: Educational Knowledge and Action Research*. London, The Falmer press.
- Carson, T.R. (1995). Reflective practice and a reconceptualisation of teacher education. In M.F. Wideen, & P. P. Grimmett (eds.) 1995. *Changing Times in Teacher Education: Restructuring or Reconceptualization?* London: Falmer Press,
- Clarke, A. (1994). Student-teacher reflection: developing and defining a practice that is uniquely one's own. *International Journal of Science Education* 16. 5: 497-509.
- Cole, A.L. (1997). Impediments to reflective practice: toward a new agenda for research on teaching. *Teachers and Teaching: Theory and Practice* 3. 1: 7-27.
- Conway, P.F. (2001). Anticipatory reflection while learning to teach: from a temporarily truncated to a temporarily distributed model of reflection in teacher education. *Teaching and Teacher Education* 17: 89-106.
- Convery, A. (1998). A teacher's response to 'Reflection-in-action'. *Cambridge Journal of Education* 28. 2: 197-205.
- Cruickshank, D.R., Kennedy, J.J., Williams, E.J., Holton, J. & Fay, D.E. (1981). Evaluation of reflective teaching outcomes. *Journal of Educational Research* 75.1: 26-32.
- Çimer, A. (2004). A study of Turkish Biology Teachers' and Students' Views of Effective Teaching in Schools and Teacher Education. EdD Thesis, *The University of Nottingham School of Education, Nottingham, U.K.*

- Çimer, A. (2007). Effective Teaching in Science: A Review of Literature. *Journal of Turkish Science Education*, 4, 1: 20-44, Available at <http://www.tused.org/internet/tused/default13.asp>
- Day, C. (1993). Reflection: a necessary but not sufficient condition for professional development. *British Educational Research Journal* 19. 1: 83-93.
- Day, C. (1999a). *Developing Teachers: The Challenges of Lifelong Learning*. London, Falmer Press.
- Day, C. (1999b). Researching teaching through reflective practice. In J. Loughran (ed.) 1999. *Researching Teaching: Methodologies and Practices for Understanding Pedagogy*, London, Falmer Press: 215-232.
- Day, C. (2001). Professional development and reflective practice: purposes, processes and partnerships. The Course named "Understanding and Developing Reflective Practice" readings. School of Education, University of Nottingham, Nottingham.
- Dewey, J. (1933). *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process*. Boston, D.C. Heath and Company.
- Dinkelman, T. (2000). An inquiry into the development of critical reflection in secondary student teachers. *Teaching and Teacher Education* 16: 195-222.
- Elbaz, F. (1988). Critical reflection of teaching: insights from Freire. *Journal of Education for Teaching* 14. 2: 171-181.
- Eraut, M. (1994). *Developing Professional Knowledge and Competence*. London, The Falmer Press.
- Farrell, T. (1998). Reflective teaching: the principles and practices. *Forum* 36. 4: 1-10.
- Ferraro, J.M. (2000). Reflective practice and professional development. ERIC Digest, No: ED449120.
- Florez, M.C. (2001). Reflective teaching practice in adult ESL settings. *ERIC Digest, No: ED451733*.
- Francis, D. (1995). The reflective journal: a window to preservice teachers' practical knowledge. *Teaching and Teacher Education* 1. 3: 229-241.
- Freese, A.R. (1999). The role of reflection on preservice teachers' development in the context of a professional development schools. *Teaching and Teacher Education* 15: 895-909.
- Freese, A.R. (2006). Reframing one's teaching: Discovering our teacher selves through reflection and inquiry, *Teaching and Teacher Education* 22:100-119.
- Geddis, A.N. (1996). Science teaching and reflection: incorporating new subject matter into teachers' classroom frames. *International Journal of Science Education* 18. 2: 249-265.
- Ghaye, T. & Ghaye, K. (1999). *Teaching and Learning Through Critical Reflective Practice*. London, David Foulton Publishers.
- Gibbs, C.J. (1999). Believing, thinking and feeling: putting the teacher back into effectiveness. The paper presented at the Joint Conference of the New Zealand association for Research in Education (NZARE) and Australian Association for Research in education (AARE). Melbourne, November, 1999.
- Gilbert, J. (1994). The construction and reconstruction of the concept of the reflective practitioner in the discourses of teacher professional development. *International Journal of Science Education* 16. 5: 511-522.
- Golby, M. & Appleby, R. (1995). Reflective practice through critical friendship: some possibilities. *Cambridge Journal of Education* 25. 2: 149 -160.



## How does Reflection Help Teachers to Become Effective Teachers?

- Good, T.L. (1996). Teaching effects and teacher evaluation. In J. Sikula (Ed.), *Handbook of Research on Teacher Education*, 2nd. Ed., New York, NY: Macmillan, p.p.: 617-665
- Griffiths, V. (2000). The reflective dimension in teacher education. *International Journal of Educational Research* 33: 539 - 555.
- Gurney, P. (2007). Five Factors for Effective Teaching. *New Zealand Journal of Teachers' Work, Volume 4, Issue 2*, 89-98, Available at: [http://www.teacherswork.ac.nz/journal/volume4\\_issue2/gurney.pdf](http://www.teacherswork.ac.nz/journal/volume4_issue2/gurney.pdf) (Accessed at 19.09.2011)
- Hargreaves, A. (1995). Development and desire: a post-modern perspective. In T. Guskey and M. Huberman (eds.) 1995. *Professional Development in Education: New Paradigms and Practices*. New York, Teachers College Press: 9-34.
- Hargreaves, A. (1998). The emotional practice of teaching. *Teaching and Teacher Education* 14. 8: 835-854.
- Harris, A. (1995). Effective teaching. *Research Matters*. No: 3: 1-8.
- Harris, A. (1998). Effective teaching: a review of the literature. *School Leadership and Management* 18. 2:169 -183.
- Hatton, N. & Smith, D. (1995). Reflection in teacher education: towards definition and implementation. *Teaching and Teacher Education* 11. 1: 33-49.
- Holliday, R. (1999). Reconsidering fundamentals of learning and teaching: professional practice reshaped through critical reflection. Paper presented at the combined conference of the Australian Association for Research in Education and the New Zealand Association for Research in Education, Melbourne, Australia, 29 November- 2 December, 1999).
- Hopkins, D. (1999). *Generic Teaching Strategies Handbook*. School of Education PGCE Course, The University of Nottingham, Nottingham, 1999.
- Jacob, E. (1995). Reflective practice and anthropology in culturally diverse classrooms. *The Elementary School Journal* 5. 451-463.
- Jay, J. K. (1999). Untying the knots: examining the complexities of reflective practice. Paper Presented at the Annual Meeting of the American Association of Colleges for Teacher Education (Washington, Dc, February 24-27, 1999).
- Kirby, P.C. & Teddlie, C. (1989). Development of the reflective teaching instrument. *Journal of Research and Development in Education* 22. 4: 46-51.
- Knowles, J.G. (1993). Life-history accounts as mirrors: a practical avenue for the conceptualisation of reflection in teacher education. In J. Calderhead & P. Gates (eds.) 1993. *Conceptualising Reflection in Teacher Development* (1993). London, The Falmer Press: 70-92.
- Kolb, D.A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. New Jersey, Prentice Hall.
- Korthagen, F.A.J. & Wubbels, Th. (1995). Characteristics of reflective practitioners: towards an operationalisation of the concept of reflection. *Teachers and Teaching: Theory and Practice* 1. 1: 51-72.
- Kroath, F. (1989). How do teachers change their practical theories? *Cambridge Journal of Education* 19.1: 59-69.
- Kruse, S.D. (1997). Reflective activity in practice: vignettes of teachers' deliberative work. *Journal of Research and Development in Education* 31.1: 46-60.

- Lange, D. (1990). A blueprint for a teacher education program. In J. Richards & D. Nunan (eds.) 1990. *Second Language Teacher Education*. New York, Cambridge University Press: 240-250.
- Leahy, R. & Corcoran, C.A. (1996). Encouraging reflective practitioners: connecting classroom to fieldwork. *Journal of Research and Development in Education* 29. 2: 104-114.
- Leithwood, K. (1990). The principal's role in teacher development. In B. Joyce (ed.) 1990. *Changing School Culture Through Staff Development*. Washington, D.C., association for Supervision and Curriculum Development: 71-90.
- Lindop, C. (1985). Evaluating effectiveness in teacher education. *Journal of Education for Teaching* 11. 2: 165-176.
- Lucas, P. (1996). Coming to terms with reflection. *Teachers and Teaching: Theory and Practice* 2. 1: 23-40.
- McIntyre, D. (1993). Theory, theorising, and reflection in pre-service teacher education. In J. Calderhead & P. Gates (eds.) 1993. *Conceptualising Reflection in Teacher Development* (1993). London, The Falmer Press: 39-52.
- McLaughlin, T.H. (1999). Beyond the reflective teacher. *Educational Philosophy and Theory* 31.1: 9-25.
- Mills, M. & Satterthwait, D. (2000). The disciplinary of pre-service teachers: reflections on the teaching of reflective teaching. *Asia-Pacific Journal of Teacher Education* 28.1: 29-38.
- Moore, A. (2000). *Teaching and Learning: Pedagogy, Curriculum and Culture*. London, Routledge Falmer.
- Moran, A. & Dallat, J. (1995). Promoting reflective practice in initial teacher training. *International Journal of Educational Management* 9. 5: 20-26.
- Muijs, D. & Reynolds, D. (2000). School effectiveness and teacher effectiveness in Mathematics: some preliminary findings from the evaluation of the mathematics enhancement programme (primary). *School Effectiveness and School Improvement* 11. 3: 273-303.
- Muijs, D. & Reynolds, D. (2001). *Effective Teaching: Evidence and Practice*. London, Paul Chapman Publishing.
- Muijs, D. (2006). New Directions for School Effectiveness Research: Towards School Effectiveness without Schools. *Journal of Educational Change*, 7: 141-160.
- Munby, H. & Russell, T. (1989). Educating the reflective teacher: an essay review of two books by Donald Schön. *Journal of Curriculum Studies* 21.1: 71-80.
- Munro, J. (1999). Learning more about learning improves teacher effectiveness. *School Effectiveness and School Improvement* 10. 2: 151-171.
- Newell, T. (1996). Practical inquiry: collaboration and reflection in teacher education reform. *Teaching and Teacher Education* 12. 6: 567-576.
- Newman, S. (1999). Constructing and Critiquing reflective practice. *Educational Action Research* 7.1: 145-163.
- Nicholas, S. E., Tippins, D., & Wiesemen, K. (1997). A toolkit for developing critically reflective science teachers. *Journal of Science Teacher education* 8. 2: 77-106.
- Odabaşı Çimer, S. and Çimer, A. (2012). Issues around Incorporating Reflection in Teacher Education in Turkey, *Türk Fen Eğitim Dergisi* 9 (1): 17-30

## How does Reflection Help Teachers to Become Effective Teachers?

- OECD (2009). *Creating Effective Teaching and Learning Environments: First Results From Talis. Teaching And Learning International Survey*, ISBN 978-92-64-05605-3, Available at: <http://www.oecd.org/dataoecd/17/51/43023606.pdf>
- Osborne, M.D. (1998). Teacher as knower and learner: reflecting on situated knowledge in science teaching. *Journal of Research in Science Teaching* 35. 4: 427-439.
- Osterman, K.F. (1990). Reflective practice. *Education and Urban Society* 22. 2: 133 -153.
- Osterman, L. F. & Kottkamp, R.B. (1993). *Reflective Practice for Educators: Improving Schooling Through Professional Development*. London, Sage Publications Ltd.
- Pennington, M. (1995). The teacher change cycle. *TESOL Quarterly* 29. 4: 705-731.
- Perrott, E. (1982). *Effective Teaching: A Practical Guide to Improving Your Teaching*. London, Longman.
- Pinsky, L.E., Monson, D., & Irby, D.M. (1998). How excellent teachers are made: reflecting on success to improve teaching. *Advances in Health Science Education* 3: 207-215.
- Placier, P. (1999). Reflective, inquiring professionals (who use technology): rhetoric and implementation in teacher education reform. Paper presented at the annual meeting of AERA, Montreal, April 1999.
- Pollard, A & Triggs, P. 1997. *Reflective Teaching in Secondary Education*. London, Cassell.
- Preston, B. (1996). Professional practice in school teaching. *Australian Journal of Education* 40. 3: 248 - 264.
- Quicke, J. (1992). Liberal irony and reflective teaching: a role for academic courses in-service teacher education. *Journal of Curriculum Studies* 24. 4: 315-325.
- Quicke, J. (1996). The reflective practitioner and teacher education: an answer to critics. *Teachers and Teaching: Theory and Practice* 2.1: 11-22.
- Reagan, T. (1993). Educating the 'reflective practitioner': the contribution of philosophy of education. *Journal of Research and Development in Education* 26. 4: 189-196.
- Reiman, A. J. (1999). Guided Reflective Practice. N.C. State University, Raleigh, <http://www.ncsu.edu/mcrp/reflection/overview.htm> (13 Oct. 2001)
- Richards, J. (1990). Beyond training: approaches to teacher education in language teaching. *Language Teacher* 14. 2:3-8.
- Russell, T. (1993). Critical attributes of a reflective teacher: is agreement possible? In J. Calderhead & P. Gates (eds.) 1993. *Conceptualising Reflection in Teacher Development* (1993). London, The Falmer Press: 144-153.
- Schön, D.A. (1983). *The Reflective Practitioner: How Professionals Think in Action*. London, Temple Smith.
- Schön, D.A. (1987). *Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions*. London, Jossey-Bass Publishers.
- Schuster, J.M. (1998). "Never use a red pen" and other maxims for reflective teaching. *Journal of Policy Analysis and Management* 17. 2: 322-333.
- Silcock, P. (1992). The 'reflective practitioner' in the year of the SAT. *Education* 3-13 March, 3-9.
- Silcock, P. (1993). Can we teach effective teaching? *Educational Review* 45. 1: 13-19.
- Van Manen, M. (1991). Reflectivity and the pedagogical moment: the normativity of pedagogical thinking and acting. *Journal of Curriculum Studies* 23. 6: 507-536.

- Waks, L.J. (1999). Reflective practice in the design studio and teacher education. *Journal of Curriculum Studies* 31. 3: 303-316.
- White, W.E. & Burke, C.M. (1993). Effective teaching and beyond. *Journal of Instructional Psychology* 20. 2: 167-176.
- Willems, A.L. & Clifford, J.C. (1999). Characteristics of effective middle level teachers. *Education* 119. 4: 734-736.
- Williams, P.L. (1998). Using theories of professional knowledge and reflective practice to influence educational change. *Medical Teacher* 20. 1: 28-34.
- Wood, E. & Bennett, N. (2000). Changing theories, changing practice: exploring early childhood teachers' professional learning. *Teaching and Teacher Education* 16: 635-647.
- Wubbels, Th. & Korthagen, F.A.J. (1990). The effects of a pre-service teacher education programme for the preparation of reflective teachers. *Journal of Education for Teaching* 16. 1: 29-43.
- Wubbels, Th., Levy, J., & Brekelmans, M. (1997). Paying attention to relationships. *Educational Leadership* 54. 7: 82-86.
- Yates, G.C.R. (2005). "How Obvious": Personal reflections on the database of educational psychology and effective teaching research. *Educational Psychology*, 25, 6: 681-700
- Yates, G.C.R., & Yates, S.M. (1990). Teacher effectiveness research: towards describing user-friendly classroom instruction. *Educational Psychology* 10. 3: 225-229.
- Zeichner, K.M. (1983). Alternative paradigms of teacher education. *Journal of Teacher Education* 34. 3: 3-9.
- Zeichner, K. M. & Liston, D.P. (1987). Teaching student teachers to reflect. *Harvard educational Review* 57: 23-48.
- Zeichner, K. M. & Liston, D. P. (1996). *Reflective Teaching: An Introduction*. New Jersey, Lawrence Erlbaum Associates Inc.