Promoting Core Reflection in Teacher Education: Deepening Professional Growth

Fred A.J. Korthagen, Utrecht University, The Netherlands

Abstract

This chapter describes concrete guidelines for promoting reflection in teacher education. First, a phase model for reflection is introduced, which helps to promote meaning-oriented reflection. Next, typical problems related to reflection in teacher learning are discussed, which have led to an approach for making reflection more effective and transformative. Examples show how this Core Reflection approach, which is based on a model of levels of reflection, can bring the power of ideals and personal qualities to bear upon practitioners' experiences of teaching and learning. Empirical studies on the use of the approach are discussed, as well as implications and context factors influencing the possibilities for using Core Reflection in various contexts.

Introduction

Developments in teacher education, such as the increase of more school-based approaches, require a rethinking of how best to build linkages between theory and practice. In this context, reflection has since long become a keyword in the education of teachers (Schön, 1987; Vermunt & Endedijk, 2010). As Calderhead and Gates (1993, p. 2) stated, the essence of reflection is that

reflection is that it enables professionals "to analyze, discuss, evaluate and change their own practice". Empirical evidence for the crucial role of reflection is found by Van Woerkom (2003), who showed that strong professionals can be characterized by the fact that they regularly reflect on their experiences with the aim of improving their future behavior. In other words, strong professionals learn from their experiences in a conscious and systematic manner.

However, the focus on reflection is often problematic in teacher education. First, although teacher educators may emphasize reflection, the question is what do they mean by the term. Most conceptualizations of reflection seem to draw upon Dewey (1910), who defined reflection as "active, persistent and careful consideration" (p. 6). There is a lack of publications that describe in detail what this means for teachers or present specific guidelines for how to address reflection in teacher education. As a result, student teachers as well as experienced teachers often consider reflection as something vague, if not downright useless (Cole, 1997).

Action-oriented Versus Meaning-oriented Reflection

Regretfully, teacher reflection often remains a superficial phenomenon. As an example, let us consider a teacher named Linda, who is struggling with classroom discipline. After her lesson Linda might think: "In the next lesson I will have to be more strict." This means that Linda jumps to a solution and that her reflection does not include awareness of what has really been going on inside herself and her students, for example what affective and motivational aspects were involved. As a result, this teacher runs the risk of trying a superficial, ineffective solution in the next lesson. The moment Linda notices that her solution does not really work, she may even conclude that reflection is not very helpful.

What is needed, is a deeper awareness of the essence of the problem. This can only be reached through a more detailed reflection that includes the dimensions of thinking, feeling, wanting, and

and acting, as research has convincingly shown that teachers' actions as well as student behavior are not only guided by cognitive thinking, but may be influenced as much by feelings and emotions (Damasio, 1994; Hargreaves, 1998; Sutton and Wheatley, 2003) and personal needs (Deci & Ryan, 2002). Hence, if we take the person of the teacher seriously as the central instrument through which practice takes form, we have to realize that personal frames of reference, feelings and needs determine teachers' practices. If, in the example, Linda would reflect on relations between thinking, feeling, wanting, and acting, she might discover a discrepancy between what she wanted and what she did, or a discrepancy between, on the one hand, what she wanted and, on the other, how the students felt and what they needed or wanted. It will be clear that through such awareness, Linda's reflection can become more fruitful. She may become aware that as a result of her lack of certainty, she had hardly given attention to what she wanted and the needs of the children, something many beginning teachers struggle with. This may stimulate Linda to think more about motivating the students in her next lesson. If she concretizes this idea, she will arrive at another strategy than her original idea of 'being more strict'. Moreover, reflection seems necessary on what made her behave the way she did in the previous lesson. Linda may then become aware that her uncertainty caused her to close her eyes to what was actually going on in the students. Such a reflection would further deepen her new strategy, since motivating the students will probably only work well if this teacher is really aware of what is happening in these students.

This example shows the important difference between *action-oriented* and *meaning-oriented reflection* (Hoekstra, 2007), the latter being "oriented toward understanding underlying processes" (Mansvelder-Longaroux, Beijaard, & Verloop, 2007, p. 57). The fact that teachers often have little time to reflect (Schön, 1987), often causes them to focus on what to *do* or *do better* (action-oriented reflection), in other words to quickly jump to a solution and skip the

3

deeper understanding of the meaning of the situation under reflection. The example of Linda clarifies how ineffective the reflection can then become, compared to trying to become aware of what important underlying mechanisms in the situation were. Hence, it is no surprise that in her empirical study of teacher learning, Hoekstra (2007) found that in the long run, meaning-oriented reflection contributes to professional development, whereas action-oriented reflection hardly ever does.

The ALACT Model of Reflection

In the early 1980s, teacher educators in the Netherlands started to realize that there existed a phenomenon termed 'practice shock' in beginning teachers and that it was therefore absolutely necessary to rethink the relation between theory and practice. The idea was that reflection was the missing link between practice and theory. At Utrecht University, a practical approach was developed in which the person of the teacher and reflection on his or her own thinking, but also on emotions and needs, received a more central place in teacher education. Korthagen (1985) published a model describing the ideal process of learning from practice with the aid of five phases: (1) Action, (2) Looking back on the action, (3) Awareness of essential aspects, (4) Creating alternative methods of action, and (5) Trial, which itself is a new action and thus the starting point of a new cycle (see Figure 1). This five phase model is called the ALACT model for reflection (named after the first letters of the five phases). It is currently not only in use in most Dutch teacher education programs and many other professional curricula in the Netherlands, but also in educational programs in many other countries such as Australia (i.e, Brandenburg, 2008).
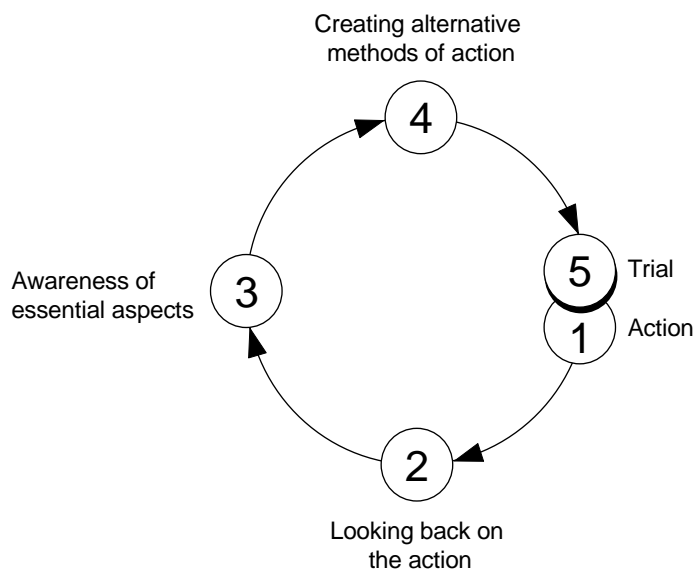
Figure 1. *The ALACT model describing a structured process of reflection.*

The ALACT model clarifies that a focus on action-oriented reflection implies that the importance of the third phase of the model is overlooked. In order to arrive at meaning-oriented reflection, this phase is absolutely necessary. When teachers are able to progress through the various phases of the model independently, they will have developed *a growth competence*. In practice, however, initial help of a coach or colleague is often necessary. For initial teacher education this means that a teacher educator should have the time (and competence!) to support their students' individual professional development. As in most Dutch teacher education programs, student teachers are taught in cohort groups of 20 to 30 students, educators generally have such opportunities. Also, in most institutions for teacher education in the Netherlands, mentor teachers from practicum schools are trained to coach student teachers with the aid of the ALACT model. Moreover, student teachers can also learn how to use the ALACT model themselves during peer coaching. A detailed discussion of the background of the ALACT model and the interventions educators can use to support reflection based on the model, can be found in Korthagen et al. (2001, p. 106-128).

found in Korthagen et al. (2001, p. 106-128).

Process and content

Having had many years of experience with the ALACT model in teacher education, we found that it helped to clarify what reflection actually can mean in practice. However, we also observed that while going through the five phases, many teachers still do not really reflect deeply (i.e. that they do not always focus on underlying phenomena in the practical situation under reflection). For example, in phase 1 of the model there may be an experience that is dissatisfying, such as a discipline problem in a teacher's classroom. Next, phase 2 (looking back) is sometimes nothing more than the conclusion that it was a bad experience, phase 3 (awareness of essential aspects) that the children should have been more quiet, and phase 4 (creating alternative methods of action) that stricter teacher behavior is needed. If in phase 5 (trial) such a 'reflection' appears not to work out well, student teachers sometimes start to criticize the ALACT model for not being helpful. Such reactions to models of reflection are not confined to the ALACT model. Hoy and Woolfolk (1989) in the U.S. also concluded that students often consider reflection as impractical and unhelpful in solving their problems, while being unaware that the problem has to do with the quality of their reflection.

Hence, although the ALACT model is helpful as a *process model*, it does not support the teacher in knowing what to reflect on, and this can easily make the reflection somewhat superficial. Especially in complex and recurring problematic situations, a type of reflection which only focuses on one's previous and future behavior is counterproductive. As many authors emphasize, strong professional development processes should include the possibility of second-order changes (i.e. changes in the underlying sources of behaviour) (Levy & Mary, 1986). In order for such transformational changes to take place, a deeper type of reflection is needed.

needed.

Core Reflection

For this reason, we have developed what is called *Core Reflection.* It is based on a model

describing possible *levels of reflection* (Korthagen, 2004), which is shown in Figure 2

(Korthagen, 2004).

Environment — What do I encounter?
(What am I dealing with?)
Behavior — What do I do?
Competencies — What am I competent at?
Beliefs — What do I believe in the situation?
Identity — Who am I (in my work)?
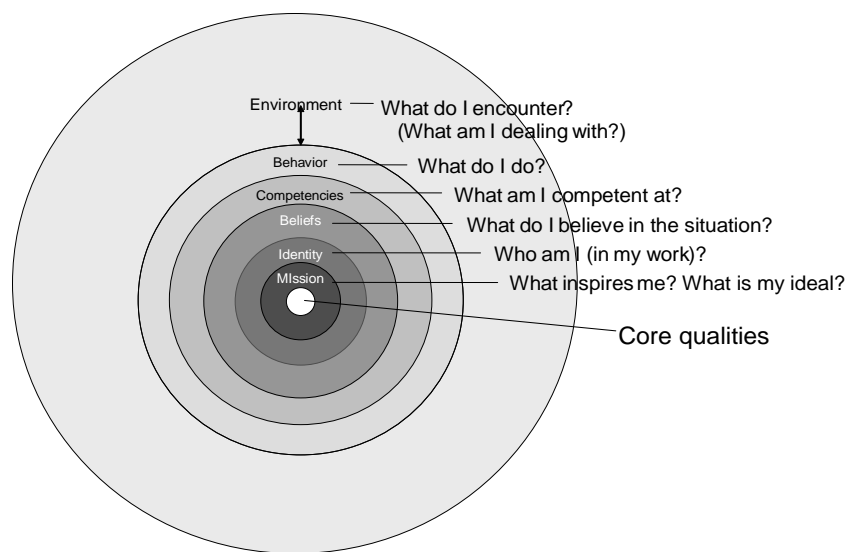MIssion — What inspires me? What is my ideal?
Core qualities

Figure 2: The model levels of reflection (The onion model; Korthagen, 2004)

I will now discuss the meaning of the various layers in this model, which is often called 'the

onion model'.

1. *The environment.* This layer refers to everything that a person encounters outside of herself.

In the case of a teacher, this involves the whole classroom setting, the subject matter, the

school culture with all its implicit and explicit norms, and so forth. In the example of Linda, the

most obvious elements in her environment are the students.

2. *Behavior.* This refers to what the teacher does, how he or she copes with the challenges in

7

the environment, in Linda's case how she acts in the classroom.

3. *Competencies*. This layer involves what the teacher is competent at doing.

4. *Beliefs*. This layer refers to what the teacher believes about the situation s/he is dealing with. With the term 'beliefs' we refer to assumptions about the outer world, which are often unconscious.

5. *Identity*. This layer refers to teachers' assumptions about themselves, their self-concepts and the professional roles they see for themselves.

6. *Mission*. This layer is concerned with what inspires us, and what gives meaning and significance to our work or our lives. Whereas the layer of identity has to do with how we see ourselves, the layer of mission is about our ideals.

In the center of the onion model we locate the teacher's *core qualities*, such as enthusiasm, curiosity, courage, steadfastness, decisiveness, openness, flexibility, and so forth. The term core qualities was coined by Ofman (2000), and the concept concurs with the notion of *character strengths* in positive psychology (Seligman & Csikszentmihalyi, 2000). They are considered to be people's *psychological capital* (Luthans, Youssef, & Avolio, 2007).

Core Reflection is aimed at promoting awareness of these core qualities and at reflection on the relationships between the various layers within oneself. In particular, it focuses the attention on the question of what *internal obstacles* limit the enactment of one's psychological capital, or put more concretely, one's *core qualities*, and one's *ideals* (the level of mission). The assumption is that people often use only part of their full potential. Inner obstacles can be located at all levels of the onion model. Core Reflection helps people become aware of such obstacles and provides a method for dealing with them. The essence of this approach is that, instead of fighting with limiting patterns, the person learns to be mindful about them, *feeling* their damaging effects, and connecting with the *will* to make a different choice (Korthagen &

different choice (Korthagen & Vasalos, 2005).

Meijer et al. (2009) summarize the Core Reflection approach with the aid of the following key principles:

1. Promoting awareness of ideals and core qualities in the person that are related to the situation reflected on.

2. Identifying internal obstacles to acting out these ideals and core qualities.

3. Promoting awareness of the cognitive, emotional and motivational aspects embedded in ideals, core qualities, and obstacles.

4. Promoting a state of awareness in which the person is fully aware (cognitively and emotionally) of the discrepancy or friction between 1 and 2, and the self-created nature of the internal obstacles.

5. Trust in the process that takes place from within the person.

6. Support of acting out one's inner potential within the situation under reflection.

7. Promoting autonomy in using Core Reflection.

Core Reflection provides a means to integrate, rather than separate, the multiple dimensions of our wholeness as humans – our thoughts, our feelings, our needs, desires and ideals – and to bring the full power and potential of that wholeness to bear upon the experiences of teaching and learning (Korthagen, Kim, & Greene, 2013). As such, the Core Reflection approach connects the personal and the professional in teaching. As it appears to be a very effective approach to reflection, it has already spread to a variety of countries. For example, it is now a key element of the teacher education program at Southern Oregon University.

How Does it Work in Practice?

The assumption underlying Core Reflection is that in order to find a deeper meaning in a teaching

teaching situation, one has to include the more inner layers of the onion model in one's reflection. In the previous example of Linda, this means that she will not only reflect on what was happening in her classroom (the layer of the environment) and on what to do (the layer of behavior), but also about her own beliefs about the situation (layer of beliefs) and about what kind of teacher she wants to be (layer of professional identity), and what ideal she has (layer of mission); is she really interested in connecting with her students, also at the dimensions of feeling and wanting? What are her core qualities that can support her in this? And how has she *obstructed herself* in acting from these qualities and her ideal, i.e. her inner potential?
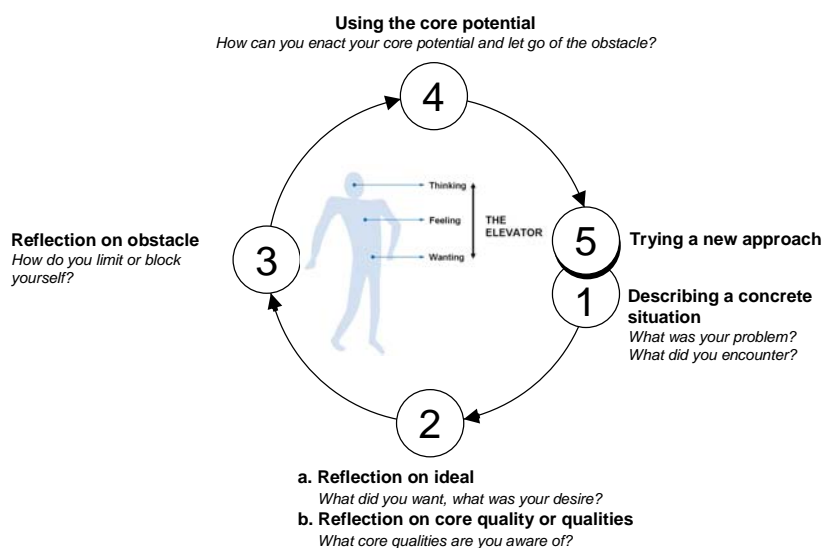
Using the core potential
How can you enact your core potential and let go of the obstacle?

4

Thinking

Feeling

THE ELEVATOR

Wanting

Reflection on obstacle
How do you limit or block yourself?

3

5 **Trying a new approach**

1 **Describing a concrete situation**
What was your problem?
What did you encounter?

2

a. Reflection on ideal
What did you want, what was your desire?
b. Reflection on core quality or qualities
What core qualities are you aware of?

Figure 2: *A phase model for Core Reflection*

This means that Core Reflection follows a phase model as shown in Figure 2. Essential is that the teacher does not focus too much on a *problem* in the situation under reflection. On the contrary, in phase 2 the focus is an ideal (the level of mission, for example, how would she like the situation to be?) and the core qualities connected with this ideal. Next, it is important to also *reflect on inner obstacles* that limit the enactment of these core qualities (phase 3). Such reflection means deliberately taking a different stance than looking at the problem encountered

encountered in the concrete situation. The attention goes from the outside to the inside. Often limiting beliefs have repressed important core qualities for so long that a skilled coach may be necessary to activate them again.

Phases 3 and 4 of the phase model may ultimately result in a more fundamental solution than would be possible if the reflection would remain confined to the levels of behavior, competencies, and beliefs. For one thing, the process can lead to a redefinition at the level of professional identity or mission.

An Example of Coaching Based on Core Reflection

In this section, I describe an example of a coaching session based on Core Reflection, derived from Korthagen et al. (2013, p. 36-37).

Teacher Susan has the ideal (*level of mission*) that she wants to show respect to her students' uniqueness. Everyone has special personal qualities, and people should in her view try to see these qualities in each other, so that together they can contribute to a better world. Susan wants to prepare her students for such a world. (This means that at the level of identity she defines her professional role in these terms.)

Two students have handed in a piece of work on volcanoes. Their text reads so well that Susan suspects that the students have simply downloaded this text from the internet. After a quick search, she finds the text on a website. She feels cheated, reacts furiously (level of behavior), and speaks about plagiarism. In retrospect, she regrets her reaction. She realizes she did not react respectfully at all, but she does not know how she could have handled the situation differently.

Susan decides to ask a colleague for a collegial consultation. This colleague is an experienced coach, trained in promoting Core Reflection. She starts with naming Susan's *core qualities*,

such as her commitment to children, and her openness, as is obvious from the fact that she has asked for this conversation. The colleague also asks about Susan's *ideal* in her teaching. Susan speaks passionately about her ideal of respect for everyone's uniqueness. While talking, she becomes more aware of the influence of her limiting belief "I was cheated" (*level of beliefs*). This belief makes her furious and blocks her from acting the way she desires. Susan realizes that more often she thinks that people deal with her in an unfair way, and that this has a strong impact on her. From this insight (*thinking*), her colleague helps Susan to move to her *feelings*. She feels frustrated and sad that, as a result of her belief "I was cheated," she has let herself be drawn into a type of behavior she actually does not want to show. This brings her to the dimension of *wanting*. From now on, she seeks to behave differently in situations in which she thinks "I was cheated."

Her colleague asks her how she would like to behave, what Susan's ideal is. Susan starts to reconnect with her ideal of respect for the uniqueness of people, and with her desire to promote this ideal in other people, especially her students. The colleague helps Susan to feel the strength of this ideal in herself and the power of her core qualities of care and commitment. This helps to deepen Susan's wanting; she starts to feel the strength of her ideal and core qualities even stronger, and she feels her desire to behave on the basis of this inner potential, even in difficult situations. Her eyes start to shine. Suddenly, she knows what she wants to do. She wants to go to the students and apologize for reacting too harshly. She wants to proceed with the conversation in a respectful way, but also to ask her students for more respect for her need for honesty. She feels she has the competencies to do this (*level of competencies*).

Empirical Evidence

An important question is: Does Core Reflection work and what are the outcomes of this approach? Over the last couple of years, several studies on the impact of Core Reflection on teachers and teacher educators have been published. Below I summarize five of these studies.

1. A study by Meijer, Korthagen, and Vasalos (2009), carried out in the Netherlands, but published in English, describes the learning process of a teacher supervised with the aid of the Core Reflection approach. Based on analyses of the seven audio-taped coaching sessions, the authors identified six stages in the teacher's development and related them to the above mentioned seven key principles of Core Reflection. Both the teacher's growth and the coaching interventions are described in detail and illustrated using quotations from coaching sessions, logbooks, and interviews. The authors show that the teacher developed more awareness of her core qualities and ideals. The teacher started to reframe her previously limited and negative self-concept and her beliefs about the educational situations she encountered, which was quite an emotional process for her. She started to act more upon her core qualities and ideals, which led to an effective change in her classroom behavior.

2. A study by Hoekstra and Korthagen (2011) also focused on the professional learning of one teacher in the Netherlands, and was published in English. The authors describe Nicole, an experienced teacher, who struggled with implementing a new pedagogy requiring her to teach in a more student-oriented way. Detailed descriptions of the coaching interactions and in-depth analyses of Nicole's learning process illustrate that Core Reflection helped Nicole realize her ideals by drawing more strongly on her core qualities. As Nicole was also studied intensively before the period of coaching started, and data were collected about her classroom behavior and her beliefs before and after the coaching, the researchers were able to find clear evidence of a statistically significant shift that took place in Nicole, both in her beliefs and her behavior. In addition, the approach supported Nicole in accepting herself as a learner as part of her own

13

part of her own professional identity.

3. Adams, Kim, and Greene (2013) conducted a study on the role of Core Reflection in the professional development of beginning teachers at Southern Oregon University. They highlight their roles as facilitators of a beginning teacher group over four years, and present brief scenarios of six new teachers, which include many verbatim quotes from these teachers. The authors analyzed the scenarios, searching for patterns in how the group's use of Core Reflection and the six individual teachers' learning and behavior developed over time. In a detailed and insightful way, the authors show that Core Reflection influenced the actualization of core qualities in the beginning teachers, and how this led to new insights, self-understandings, and behaviors .

4. A Dutch study by Attema-Noordewier, Korthagen, and Zwart (2013), published in English, describes a trajectory for professional development based on the principles of Core Reflection, carried out with complete teams of teachers in six primary schools. This approach was essentially bottom-up; teachers' qualities and inspiration were taken as a starting point for professional growth. Quantitative and qualitative instruments were used for analyzing the outcomes of the approach for teachers and students, and for the school culture as a whole. At the teacher level, the researchers found increased feelings of autonomy, increased self-efficacy regarding coaching of students and colleagues, increased coaching skills, new or renewed insights and ideas about learning, and increased awareness of core qualities, of students, colleagues, and themselves. For most teachers, the learning process took place on all of the onion levels. At the student level, the teachers reported an increase in the students' working and communication skills and in the students' attitudes.

5. Core Reflection need not be limited to teachers, but can, for example, also be applied by teacher educators reflecting on their own practices. A three-year collaborative self-study by

Kim and Greene (2013) describes the impact of Core Reflection on their identities and work as teacher educators at Southern Oregon University. The authors identify four themes defining the core identity issues in their study: understanding the contradictory nature of core qualities, confronting hypocrisies, holding ambiguity, and sustaining authenticity in everyday practice. Various categories of change in the authors' teaching identities and practice are outlined. Moreover, the chapter presents evidence of the beneficial influences of these teacher educators' own development on their student teachers. The authors conclude that Core Reflection serves as a useful approach for aligning professional and personal identities with a sense of purpose, passion, and teaching ideals.

Recently, a book on Core Reflection has been published (Korthagen, Kim, & Greene, 2013) which combines an overview of the basic principles of Core Reflection with detailed descriptions of the above studies into the processes and outcomes of the application of Core Reflection. The overall conclusion is that Core Reflection leads to deep, transformative learning. i.e. learning in which we experience "dramatic, fundamental change in the way we see ourselves and the world in which we live" (Mirriam, Caffarella, & Baumgartner, 2007). Through Core Reflection, changes can take place that go beyond gradual adjustments in professional behavior (first-order change) and can thus be seen as the "second-order changes" we referred to above (Levy & Mary, 1986).

Conclusion and Discussion

Emerging from all these studies is the importance of addressing the whole person in an effort to bring about change through reflection and coaching. In the transformations that were found in these studies, personal and professional growth appeared to be intertwined through a focus on personal qualities and ideals, i.e. a focus on strength rather than weakness and problems. This

This concurs with findings from positive psychology. Fredrickson (2002), for example, conducted empirical studies showing that a focus on failures and inadequacies is counterproductive to creativity, whereas a focus on positive aspects makes people more open, creative, motivated, and effective.

I wish to emphasize that Core Reflection can be applied to learning at all levels of education. It is not only important for teachers, but has also been shown to impact student learning and the professional growth of school principals. Many professional development programs have been given to teacher educators, teachers, and school principals in a variety of countries in order to develop their competence in Core Reflection coaching.

Core Reflection is based on a view of how one can deal with deeply engrained inhibiting patterns in a person. Regretfully, people often associate this with therapy. However, fundamental to the Core Reflection approach is the idea that for deep learning it is not necessary to dive into biographical issues. What is important is awareness of one's potential and one's limiting beliefs. The latter have often become unconscious 'prisons'. As Korthagen and Vasalos (2010) discussed, the prisoner can become free if s/he:

a. starts to fully feel the negative, limiting impact of a belief or behavioral pattern on his/her functioning in the here-and-now;

b. understands the belief as a self-created mental construct;

c. develops the will to no longer be guided by the belief.

This means that in Core Reflection, 'going deep' does not mean diving into the past or dealing with therapeutic issues, but it does refer to the power of possibilities in (re)creating a simple yet deep connection with one's inner potential and overcoming inner obstacles. It is sad that practices in teacher education are relatively weakly focused on this important goal. It is even more disappointing that some teacher educators seem to think that this is an area they should

avoid. We do recognize that it is not common in our society to focus professional conversations on personal issues involving such notions as identity and mission. Even the idea of giving attention to feelings and emotions creates resistance in some teacher educators. They do not feel at ease with the notion that dealing with such things may be part of professional reflections. For example, they can be limited by such thoughts as "the student teachers will find me weird if I help them reflect on how they feel." This belief sometimes changes completely when the teacher educator gives it a try, notices how the student teacher reacts in a natural way, and observes the effects on the student teacher's learning, let alone how coaching based on Core Reflection positively impacts the relationship between the teacher educator and the student teacher. Over the years, we have heard and read impressive reports from teacher educators about their discoveries of the impact of the principles discussed in this chapter, which often changed the lives of the teacher educators themselves as well as their students, and sometimes even the entire culture in educational institutions. (For examples, see Korthagen, Kim, & Greene, 2013).

Generally, such experiences only occur after teacher educators or coaches have had some training in a coaching approach based on Core Reflection. The notions presented in this chapter are not really difficult to apply, but, as explained, they are often in contrast with what educators are used to. Hence, the issue that is at stake here, is the expansion of one's comfort zone. For example, many teacher educators and coaches have a tendency to focus primarily on rational thinking about teaching, or on weaknesses rather than on the qualities of their students. The idea to work within the tension between ideals and obstacles is often not their common habit. Our experience is that a two-day workshop is generally sufficient to support these practitioners in making a fundamental shift in their views about coaching and in their behavior, although we have to admit that much practice is needed to really become familiar with the principles

with the principles discussed above. If this happens, the fundamental shift taking place in the

professional relationships between teacher educators and students may set a model for what is

possible in the relationships between teachers and students in schools, and may contribute to

the development of a more holistic approach in education.

(More information about the Core Reflection approach can be found at www.korthagen.nl.)

References

Adams, Kim, & Greene (2013). Actualizing core strengths in new teacher development. In:

F.A.J. Korthagen, Y.M. Kim, & W.L. Greene, *Teaching and learning from within: A Core*

Reflection approach to quality and inspiration in education (pp. 61-75). New York/London:

Routledge.

Attema-Noordewier, S., Korthagen, F.A.J., & Zwart, R.C. (2013). Core Reflection in primary

schools: A new approach to educational innovation. In: F.A.J. Korthagen, Y.M. Kim, & W.L.

Greene, *Teaching and learning from within: A Core Reflection approach to quality and*

inspiration in education (pp. 111-130). New York/London: Routledge.

Brandenburg, R. (2008). *Powerful pedagogy*. New York: Springer.

Calderhead, J., & Gates, P. (1993). *Conceptualizing reflection in teacher development.*

London: Falmer Press.

Cole, A.L. (1997). Impediments to reflective practice. *Teachers and Teaching: Theory and*

Practice, 3(1), 7-27.

Damasio, A.R. (1994). *Descartes' error: Emotion, reason and the human brain*. New York:

Grosset Putman.

Deci, E.L., & Ryan, R.M. (2002) (Eds.). *Handbook of Self-Determination research.* Rochester:

The University of Rochester Press.

Dewey, J. (1910). *How we think*. Boston: Heath & Co.

Fredrickson, B. L. (2002). Positive emotions. In C.R. Snyder & S.J. Lopez (Eds.), *Handbook of positive psychology* (pp. 120- 134). Oxford: Oxford University Press.

Hargreaves, A. (1998). The emotional practice of teaching. *Teaching and Teacher Education, 14*(8), 835-854.

Hoekstra, A. (2007). *Experienced teachers' informal learning in the workplace.* Utrecht: IVLOS, Utrecht University.

Hoy, W. H., & Woolfolk, A. E. (1989). Supervising student teachers. In A. E. Woolfolk (Ed.), *Research perspectives on the graduate preparation of teachers* (pp. 108-131). Englewood Cliffs: Prentice Hall.

Hoekstra, A. & Korthagen, F. (2011). Teacher learning in a context of educational change: Informal learning versus systematically supported learning. *Journal of Teacher Education, 62*, 76-92.

Kim, Y.M., & Greene, W.L. (2013). Aligning professional and personal identities: Applying Core Reflection in teacher education practice. In: F.A.J. Korthagen, Y.M. Kim, & W.L. Greene, *Teaching and learning from within: A Core Reflection approach to quality and inspiration in education* (pp. 165-178). New York/London: Routledge.

Korthagen, F.A.J. (1985). Reflective teaching and preservice teacher education in the Netherlands. *Journal of Teacher Education, 9*(3), 317-326.

Korthagen, F.A.J. (2004). In search of the essence of a good teacher: Towards a more holistic approach in teacher education. *Teaching and Teacher Education, 20*(1), 77-97.

Korthagen, F.A.J., Kessels, J., Koster, B., Lagerwerf, B., & Wubbels, T. (2001). *Linking practice and theory: The pedagogy of realistic teacher education.* Mahwah, NJ: Lawrence Erlbaum Associates.

Korthagen, F. A. J., Kim, Y. M., & Greene, W. L. (Eds.) (2013). *Teaching and learning from within: A Core Reflection approach to quality and inspiration in education*. New York/London: Routledge.

Korthagen, F., & Vasalos, A. (2005). Levels in reflection: Core Reflection as a means to enhance professional development. *Teachers and Teaching: Theory and Practice, 11*(1), 47-71.

Korthagen, F.A.J., & Vasalos, A. (2010). Going to the core: Deepening reflection by connecting the person to the profession. In N. Lyons (Ed.), *Handbook of reflection and reflective inquiry: Mapping a way of knowing for professional reflective inquiry* (pp. 529-552). New York, etc.: Springer.

Levy A., & Mary, U. (1986). *Organizational transformation*. New York: Praeger.

Luthans, F., Youssef, C. M. & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge.* Oxford/New York: Oxford University Press.

Mansvelder-Longayroux, D. D., Beijaard, D. & Verloop, N. (2007). The portfolio as a tool for stimulating reflection by student teachers. *Teaching and Teacher Education, 23*(1), 47-62.

Meijer, P. C., Korthagen, F. A. J. & Vasalos, A. (2009). Supporting presence in teacher education: The connection between the personal and professional aspects of teaching. *Teaching and TeacherEducation, 25*(2), 297-308.

Mirriam, S.B., Caffarella, R.S., & Baumgartner, L.S. (2007). *Learning in adulthood: A comprehensive guide*. San Francisco: Jossey-Bass.

Ofman, D. (2000). *Core qualities: A gateway to human resources*. Schiedam: Scriptum.

Schön, D.A. (1987). *Educating the reflective practitioner*. San Francisco, CA: Jossey-Bass.

Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5-14.

Sutton, R. & Wheatley, K. (2003). Teachers' emotions and teaching: A review of the literature and directions for further research. *Educational Psychological Review, 15*, 327-358.

Van Woerkom, M. (2003). *Critical reflection at work: Bridging individual and organizational learning.* Enschede: Twente University.

Vermunt, J. D., & Endedijk, M. D. (2010). Patterns in teacher learning in different phases of the professional career. *Learning and Individual Differences, 21*, 294-302.