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Teachers' sense of their professional identity

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Chapter one: Introduction

Teacher professional identity is an emerging research field that is attracting an increasing amount of research attention (Akkerman & Meijer, 2011). This is hardly surprising as the concept of teacher professional identity addresses: 1) the complex nature of the teaching profession by taking both its personal and professional sides into account, 2) our understanding of teacher professional learning by acknowledging that learning is directed both externally and internally, and that 3) professional development or learning is to a large extent influenced by who one is as a person (Beijaard, 2009; Beijaard, Meijer, Morine-Dershimer & Tillema, 2005). Professional identity is often interpreted in terms of individuals' perceptions of themselves as a teacher and as the teacher they wish to become.

This dissertation focuses on a teachers' sense of their professional identity. More specifically, it addresses the relevant indicators of this identity. The overall aim is to contribute to the conceptualization of teacher professional identity and the factors affecting teacher perceptions of this identity. The study explores the extent to which teacher identity profiles can be determined and how they relate to teachers' conceptions or beliefs about teaching and learning and their own teaching behaviour.

This chapter elaborates first of all on the theoretical background to the study. It describes research on identity and on professional identity. It addresses the constructs which are used in this dissertation as indicators of teachers' sense of their professional identity, and then discusses the context factors and personal factors influencing this sense of professional identity. The theoretical discussion is rounded off with a discussion of existing knowledge on the relationship between teacher professional identity and teaching behaviour. The chapter then describes the study's aim and research questions, which is followed by a description of the study design and the methods used. The chapter ends with a short description of this study's relevance and an overview of the content of the subsequent chapters.

1.1. Theoretical background to the study

1.1.1 Identity

The concept of *identity* has been investigated in various disciplinary fields such as philosophy (Noonan, 2007), sociology (Bernstein & Olsen, 2009), developmental psychology (Bosma & Kunnen, 2008), social psychology (Tajfel & Turner, 1986) and economics (Akerlof & Kranton, 2000). Because identity is a multi-disciplinary concept, it is difficult to offer a clear-cut definition. Brubaker and Cooper (2000) even advocate abandoning the term altogether

and using terms with a clearer meaning. Various studies have attempted to organize existing views on the concept of identity (cf. Abdelal, Herrera, Johnston & McDermott, 2006). For example, a distinction between a social and a personal identity has evolved from the work of Mead (1934), resulting in a sociological component of the self (the 'me') and a more personal component (the 'I') (Beijaard, Meijer & Verloop, 2004; Deschamps & Devos, 1998). The environment is central to and influential in Mead's ideas about the development of the self. Deschamps and Devos (1998) propose a fairly straightforward definition of personal identity: 'Personal identity is what makes you similar to yourself and different from others' (p. 3). Again, the social environment is present in this definition: 'others' are used to determine an individual's idiosyncrasy. The definition used by Doise (1998) is more elaborate and incorporates the embeddedness of a personal identity in a social context: 'Personal identity can be considered to be a social representation, an organizing principle of individual positioning in a field of symbolic relationships between individuals and groups' (p. 23).

The most influential theory when investigating identities in a social context is Tajfel and Turner's (1986) social identity theory (SIT), which is based on a social-psychological perspective. SIT focuses on the psychology of intergroup relations. When writing about *social identity*, Tajfel and Turner refer to 'those aspects of an individual's self-image that derive from the social categories to which he perceives himself as belonging' (p. 16). Social identity also refers to differing from other groups, because feelings of belonging to a certain group are only possible in relation to groups one does *not* belong to (Deschamps & Devos, 1998).

Within the field of cognitive psychology, Travimow, Triandis and Goto (1991) address the distinction between a personal and a social identity. They investigated whether self-information about one's personal and social identity is stored in a single cognitive structure or in multiple, separate cognitive structures. In two experiments involving 42 and 48 students, student access to their private or collective self-concepts was manipulated using a different priming procedure for each experiment. The results of the experiments revealed that different priming procedures successfully stimulated the retrieval of either idiocentric or group cognitions, regardless of cultural background (Chinese v. North American). The researchers therefore concluded that self-representations of one's personal and social identities are stored in separate cognitive structures. Reid and Deaux (1996) investigated the findings of Trafimow et al. further. They found support for a segregation model which presumes that personal attributes and social identities are two distinct, non-overlapping self-representations represented in separate cognitive structures. They also found support for an integration model that presumes that personal attributes and social identities are often

inextricably linked and represented within the same cognitive structures. Nevertheless, the results were stronger for the integration model. According to Reid and Deaux (1996), people use personal attributes and traits to give meaning to the social categories to which they belong. Personal and social identities can thus be viewed as separate but highly intertwined constructs.

This same finding emerges from the recent work of Burk and Stets (2009), who differentiate between various bases for identities (e.g., the social structural positions people hold or their membership of certain groups). This results in a person identity, role identity and social identity. The person identity refers to the set of meanings defining the person as a unique individual (p. 124). The role identity is the internalized meanings of a role, or the set of expectations tied to a social position and guiding the attitudes and behaviours that individuals apply to themselves (p. 114). The role identity of a professor, for instance, may include the meanings "researcher" and "teacher" which a person applies to him or herself when playing out this role of a professor. The social identity is defined as based on a person's identification with a social group (p. 118). Although these identities differ for instance in their bases, they operate simultaneously in different situations (Burk & Stets, 2009). To give an example: a teacher is part of a specific school (social identity), functions as a teacher within that school (role identity) and fulfils this role in his or her own way (person identity).

Thus the personal and social identities are perceived as both integrated and separated at the same time. This separation means that they are continuously able to influence each other. Identity can therefore be viewed as a product, at a specific time and in a specific situation, as well as a process, influenced continuously by external and internal influences (Olsen, 2008). Sugrue (2005) elaborates on this, based on the work of Giddens (1991). Sugrue argues that identity is not distinctly individual and unalterable. People may strive to maintain their habits and routines, but are not immune to outside influences.

Current research on teaching and teacher education emphasizes the interaction between the teacher as a person and a professional. This interaction is closely related to the above discussion on the integration and mutual influence of the personal and the social. This emerged from the understanding of the complexity of teaching (e.g., Darling-Hammond & Snyder, 2000), the role of personal practical knowledge in learning to teach (e.g., Beijaard, Verloop & Vermunt, 2000) and being a teacher in a professional landscape (e.g., Clandinin & Connelly, 1996). It is against this background that the concept of professional identity has arisen in research on teaching and teacher education.

1.1.2 Professional identity

The concept of *professional identity* has attracted interest in various fields, such as information technology (e.g., Khapova, Arthur, Wilderom & Svensson, 2007), medicine (e.g., Pratt, Rockmann & Kaufmann, 2006) and the legal profession (e.g., Mather, McEwen & Maiman, 2001). However, most research in this area has been carried out within the field of teaching and teacher education (for a review, see Beijaard et al., 2004). Studies in this field have mainly focused on what affects teacher professional identity and its development (e.g., Coldron & Smith, 1999; Hamman, Gosselin, Romano & Bunuan, 2010; Schepens, Aelterman & Vlerick, 2009). To a lesser extent, there are also studies with a greater outcome focus. Moore and Hofman (1988) found that a strong professional identity correlates with a more pronounced critical stance towards working conditions. Hofman and Kremer (1985) and Moore and Hofman (1988) suggest that professional identity is related to teachers' intentions to leave the profession. Recently, Hong (2010) has confirmed this relationship. Using a mixed-methods approach with a cross-sectional design, Hong surveyed 84 participants, finally interviewing 27 of them who were at four different stages of their teaching careers. With this data he explored the different perceptions of pre-service and beginning teachers' professional identity and related them to decisions to leave the teaching profession. Emotion was perceived as a component of teacher professional identity, with the other components – teacher commitment, values, knowledge and beliefs, and micropolitics – perceived as contributing to this component. Emotion was the most relevant component for teachers who dropped out, as they showed the most emotional burnout.

Nias (1997) and Day (2002) claim, based on deductive reasoning and their personal theories, that professional identity is related to how teachers respond to educational reforms. Drake, Spillane and Hufferd-Ackles (2001) found some evidence for these claims. They found that teachers who told similar stories about their professional identity showed similar responses to educational reforms. However, the direction in this relationship between teachers' professional identity and their response to educational reforms is more complex. Day (2002) mentions the lack of attention being paid to teacher professional identity in educational reforms worldwide, thereby challenging professionalism among teachers. After interviewing four secondary school teachers, Lasky (2005) concluded that teacher identities were under threat from a new set of policies and their manner of implementation. Imposing reforms on teachers elicits emotional responses as the reforms may not align with teachers' own professional perspectives on what constitutes good teaching. On the one hand, these

responses are affected by teachers' sense of their professional identity (Day, 2002). On the other hand, they affect this sense of identity (Kelchtermans, 2005).

Professional identity is defined in many different ways within teaching and teacher education (Beijaard et al., 2004), which makes it difficult to compare the results of studies on this topic. Professional identity generally pertains to how teachers see themselves as teachers, based on their interpretations of their continuing interaction with their context (Beijaard et al., 2004). Kelchtermans (2009) states that teachers develop an interpretative framework during their career and that this framework is shaped and re-shaped through interaction between individual teachers and the social, cultural and structural working conditions of their working context. Day et al. (2006) found that teachers balance three relevant dimensions in their work: a personal dimension (their life outside school), a professional dimension (social and policy expectations of what constitutes a good teacher and a teacher's own educational ideals) and a situational dimension (the teacher's immediate working environment). Different professional identities are formed through the ways these dimensions interact.

1.1.3 Indicators of professional identity

Following Kelchtermans (2009), a teacher's professional identity is perceived here to be shaped by the interaction between person and context. Influences from many internal and external sources shape teachers' perceptions of themselves as teachers (Olsen, 2008). It is argued here that the interaction between person and context, and thus a teacher's sense of professional identity as a result of this interaction, manifests itself in a teacher's job satisfaction, occupational commitment, self-efficacy and motivation (see Figure 1.1 on page 14). These constructs are perceived in this study as indicators of a teacher's sense of professional identity influenced by both personal and contextual factors. According to Day (2002), professional identity coincides with these constructs. Puurula and Löfström (2003) reached a similar conclusion in their study on the development of professional identity among employees in small and medium-sized enterprises. Teacher perceptions of job satisfaction, occupational commitment, self-efficacy and motivation are often described in the literature as being important antecedents of teacher behaviour (cf. Ashton & Webb, 1986; Firestone, 1996; Toh, Ho, Riley & Hoh, 2006; Watt & Richardson, 2008).

Thus these four indicators are perceived as important in a teacher's life and work (cf. Kelchtermans, 2009). To investigate teacher professional identity, it is therefore necessary to investigate these indicators in combination. Focusing specifically on the combination of indicators might explain differences between teachers, for instance regarding their behaviours, whereas focusing on a single indicator may not. Teachers also form a social

group. As Beijaard et al. have commented: 'A teacher's professional identity is not entirely unique' (2004; p. 122). Being part of a group means that there is a certain amount of uniformity in the group members' thoughts and actions (Burk & Stets, 2009). By sharing a profession, teachers share specific knowledge and professional skills. Thus to a certain extent teachers may have a shared identity.

Applying this perspective to a teacher's sense of professional identity means teachers will have a shared identity in their profession, but at the same time will differ as a result of their personal perspectives on their context and their personally held beliefs. Teachers may feel that they differ from other teachers in terms of level of motivation, job satisfaction, commitment and/or feelings of self-efficacy. This being true, we cannot view professional identity as attributable to all teachers in the same fashion. Moreover, we may expect teacher perceptions of these relevant indicators of their professional identity to show different identity profiles in reality.

1.1.4 Context factors influencing professional identity

Professional development opportunities and level of autonomy are aspects of the context in which a teacher works. Van Veen (2008) has pointed to an increasing lack of teacher autonomy, even though autonomy is a crucial part of a teacher's profession. Teachers who experience more autonomy feel more satisfied in their work, are more motivated and feel more competent (cf. Bogler & Somech, 2002; Weiss, 1999). Van Veen (2008) has also stated that a teacher's level of autonomy can change over time. Hargreaves (2000) makes the same point in his conceptualization of the development of teacher professionalism in recent decades. He comments that education is increasingly being approached from a market perspective, with rules and regulations being imposed on teachers. According to Hargreaves, this does not aid professionalism. Moreover, it results in less teacher autonomy regarding classroom judgement.

Thus although autonomy is limited by government regulations (Van Veen, 2008), it is important for teacher professionalism (Anderson, 1987; Hargreaves, 2000; Van Veen, 2008). Similarly, keeping knowledge and skills up to date and participating in professional development is perceived as part of teacher professionalism (Dijkstra, 2009; Evans, 2008; Van Veen, 2008). In his paper on professional identity in higher education, Nixon (1996) states that teaching should be recognised as an 'important area of professional expertise in its own right' (p. 14), as in higher eduction career promotion is usually based on research activities. To strengthen this teaching expertise, professional development opportunities are deemed important (Nixon, 1996; Van Veen, 2008). According to Kwakman (1999),

professional development leads not only to quality improvements in schools, but also to opportunities for teacher development, both personally and professionally.

It is assumed here that teachers may differ in terms of indicators of professional identity (job satisfaction, self-efficacy, motivation and commitment), resulting in specific professional identity profiles. Teachers with different profiles are not expected to differ in terms of autonomy or professional development opportunities, as teacher autonomy and professional development are considered to be part of the work of all teachers.

1.1.5 Personal factors influencing professional identity

Although teachers share a common profession, they will differ in their more personal attributes, possibly affecting the indicators of a sense of professional identity. The personal attributes discussed here are teachers' primary reason for becoming a teacher, their total amount of experience in education, educational beliefs and the features of their appointments.

The primary reasons for choosing the teaching profession are viewed here as push and pull factors for a teacher's level of motivation. Reasons for choosing the teaching profession have generally been divided into intrinsic, extrinsic and altruistic reasons (Bastick, 2000). Although this distinction is often used in research, Huberman, Gronauer and Mati (1993) have grouped these reasons into two types: professional versus material. More recently, Richardson and Watt (2006) distinguished five types of reason for teaching, derived from Wigfield and Eccles' (2000) expectancy-value theory. Sinclair, Dowson and McInerney (2006) speculated that the type of reason for choosing the profession will affect teacher intentions to remain in the occupation. Fokkens-Bruinsma and Canrinus (2011) found a positive relationship between specific reasons for becoming a teacher and student teachers' occupational commitment. Additionally, Bruinsma and Jansen (2010) found a positive relationship between pre-service teachers' reasons for becoming a teacher and their feelings of self-efficacy. These reasons may influence teacher professional identity as well. Because of an absence of theory regarding this possibility, this dissertation will investigate this relationship.

Similarly, the total amount of experience that teachers have in education may affect their sense of professional identity. Previous research has found that professional identity should be perceived as an ongoing and dynamic process (e.g., Beijaard et al., 2004). Ibarra (1999) found that people use provisional professional identities before their final professional identity evolves through rehearsal and experience. In their longitudinal study, Dobrow and Higgins (2005) found that the clarity of the professional identity of 136 former MBA

students increased over time. Thus the extent to which individuals know who they are and what they want professionally and in terms of their career increases with experience. The longer teachers work in a professional context, the more experience they gain and the more they are influenced by context features (Huberman, 1989). A teacher's sense of professional identity may change during the career. This suggests a distinction in professional identity profiles between teachers with different amounts of experience.

Personal beliefs about education may also influence a teacher's sense of professional identity. Teacher beliefs have been studied extensively and are seen as a lens through which teachers filter information from external sources (Borko & Putnam, 1996; Fairbanks et al., 2010; Fang, 1996; Kagan, 1992; Pajares, 1992). Educational beliefs guide a teacher's actions and their perceptions of themselves in their work as teachers (Akkerman & Meijer, 2011). For beginning teachers, for example, this may lead to internal struggles as to what is the 'right' way to teach or whether they are suited to the job (Akkerman & Meijer, 2011; Flores, 2001). A strong relationship may be assumed between how teachers perceive their own professional identity as teachers and their educational beliefs. However, there have been few empirical studies on the relationship between sense of professional identity and educational beliefs.

Finally, the features of teacher appointments need to be explored. These features are the result of personal circumstances and preferences, as well as contextual vacancies and opportunities. Teacher appointments can differ in type and size in the extent to which teachers carry out tasks additional to teaching, and in the length of time teachers have been working with their current employer. Whether these situational factors affect or are affected by teacher professional identity remains unclear. These features may influence the construction of a professional identity, resulting in a specific professional identity profile at a specific point in time. At the same time, we should not rule out the possibility that teachers with a specific profile may choose appointments with certain characteristics. Before investigating these possibilities further, we first need to explore whether teachers with different professional identity profiles also differ in terms of the features of their appointment.

1.1.6 Professional identity and teaching behaviour

Research into teacher professional identity is conducted for a variety of reasons. This could be to shed light on teacher attrition (Hofman & Kremer, 1985; Hong, 2010; Moore & Hofman, 1988), to understand teacher commitment (Day, Elliot & Kington, 2005), to explain teacher response to educational reforms (Day, 2002; Drake et al., 2001; Hammersley-

Fletcher & Quaker, 2010; Nias, 1997) or to understand how to address professional identity in teacher education (Hong, 2010; Rots, 2010). Notwithstanding the importance of these aims, there is a lack of empirical research that combines an investigation of teacher professional identity with teacher classroom behaviour.

Teachers' professional identity has not been related to teacher' specific teaching behaviour. The VITAE study by Day et al. (2006) involved extensive research into teacher professional identity in relation to teacher effectiveness. The key aim of the four-year longitudinal project was to investigate factors contributing to variations in teacher effectiveness. Day et al. (2006) found that a balancing of three relevant work dimensions (see section 1.1.2) not only provided information about teacher professional identity but was also one of the factors contributing to teacher effectiveness (operationalized as value-added measures of pupil progress and achievement). Missing from the study, however, is an answer to the question of how and to what extent a teacher's sense of professional identity relates to specific teaching behaviour.

Teacher behaviour has been studied extensively, resulting in multiple review studies and meta-analyses in this field (e.g., Darling-Hammond, 2009; Scheerens, 2007; Seidel & Shavelson, 2007; Van de Grift, 2007; Wayne & Youngs, 2003). International research in primary education has revealed that the following teaching behaviours are related to higher pupil achievement and involvement: a) efficient classroom management, b) creating a safe and stimulating learning climate, c) providing clear instruction, d) providing feedback, e) adaptive teaching, and f) teaching of learning strategies (Kyriakides, Creemers & Antiniou, 2009; Van de Grift, 2007). Seidel and Shavelson (2007) found in their meta-analysis that although the effect of the various teaching components on student outcomes is smaller in secondary education, studies performed in primary and secondary education show similar patterns in the relevance of these teaching behaviours.

To understand and capture these behaviours, researchers have asked teachers about their own perception of their teaching behaviours (e.g., Van der Schaaf, Stokking & Verloop, 2008), they have used external observers to observe teachers while teaching (e.g., Teddlie, Creemers, Kyriakides, Muijs & Yu, 2006) and they have asked pupils about their perceptions of their teacher's behaviour (e.g., Den Brok, Bergen & Brekelmans, 2006). When studied separately, the indicators of teacher professional identity (occupational commitment, self-efficacy, job satisfaction and motivation) are shown to correlate with effective teaching behaviour and teacher effectiveness (e.g., Muijs & Reynolds, 2002; Ololube, 2006;

Opdenakker & Van Damme, 2006; Ross, 2002). Research combining the indicators and relating them to effective teaching behaviour has not yet been carried out.

1.2. Study aims and research questions

This dissertation aims to contribute to the understanding of teacher professional identity by investigating whether different professional identity profiles are empirically evident in a large sample of practising teachers. If this proves to be the case, we aim to investigate the extent to which these profiles differ in terms of various measures. Our aim is to explore the extent to which teachers' professional identity profiles are related to teachers' educational beliefs and teaching behaviours. These aims have resulted in the following research questions:

1. How can the indicators of a teacher's sense of professional identity be defined and measured?
2. How are the indicators of teacher professional identity related?
3. Are different professional identity profiles empirically evident in a large sample of practising teachers? If so, do teachers with different professional identity profiles differ in:
   a. their amount of experience in education?
   b. their perceptions of opportunities for professional development?
   c. their perceptions of their level of autonomy?
   d. their reasons for choosing the teaching profession?
   e. the features of their appointments?
4. Do teachers with different professional identity profiles differ in their educational beliefs about the objectives of education and students' role in teaching?
5. Do teachers with different professional identity profiles differ in their teaching behaviours?

1.3. Study design and method

To answer the research questions presented in section 1.2, the research presented in this dissertation was carried out in four successive steps. First, a literature study was conducted to identify and clearly define the indicators of teacher professional identity (research question 1). By investigating the indicators in combination within a framework of personal and contextual variables, an indication of teacher professional identity was obtained. For this

purpose, existing questionnaires measuring indicators as well as personal and contextual variables were selected and combined in an online survey.

In a pilot study, this survey was distributed by e-mail among 567 secondary school teachers in the Netherlands. The schools that were selected are a representative sample of the different levels of secondary education offered in the Netherlands. In total 122 teachers completed the survey and the questions evaluating it. At the same time, three university-based teacher trainers and one former teacher were asked to give their expert opinion on the survey. Principal component analysis was used on the data from the 122 teachers, together with reliability analysis, to determine whether the structure of the questionnaires in the survey resembled the structures found in the literature. The questionnaire measuring the indicator of 'motivation' was found to have unstable psychometric properties and was replaced by two open-ended questions. These questions asked teachers about their main reason for becoming a teacher and their main reason for remaining in teaching. Teachers were also asked to indicate how motivated they felt about their profession when they started teaching and how motivated they felt at the time of the survey. These latter questions were used to calculate changes in motivation levels.

The survey was adapted based on the psychometric properties of the questionnaires and the evaluation by the teacher trainers and former teacher. It was then distributed by e-mail to 5575 teachers in the Netherlands. In total, 1214 teachers completed the survey. Using the teacher data, we investigated how the indicators of a sense of professional identity were related (research question 2). Causal relationships between the indicators were hypothesized, based on the literature. This resulted in a hypothetical model which was then tested using structural equation modelling. After specifying a final, empirically verified model of the relationships between the indicators of teacher professional identity, we investigated whether different professional identity profiles would be evident in the data of the 1214 teachers who completed the survey (research question 3). Two-step cluster analysis was used for this purpose.

The next step was to investigate whether teachers matching these profiles differed in their amount of teaching experience and their reasons for becoming a teacher (research questions 3a and 3d). This was done by calculating Pearson's chi-square. Differences between these teachers regarding their perceptions of opportunities for professional development and level of autonomy (research questions 3b and 3c) were analysed using analysis of variance (ANOVA). ANOVA was also used to explore whether teachers matching these identity profiles differed in their educational beliefs (research question 4).

Lastly, we investigated whether teacher identity profiles were related to teaching behaviour (research question 5). An additional study was designed for this purpose. Of the 1214 teachers who completed the questionnaire, 100 teachers working within a 100-mile radius who had indicated a willingness to take part in further research were asked to participate in a study in which observational data would be collected. The study consisted of two classroom observations by two observers, as well as the distribution of a pupil questionnaire to the classes in which the teachers had been observed. The pupil questionnaire asked pupils to give their opinion about their teacher's teaching behaviours. Data from 18 teachers and 334 pupils was collected for this study. ANOVA was used to explore possible differences in teaching behaviours between teachers in the different identity profiles as observed by two external observers and by pupils.

1.4. Relevance of the dissertation

This dissertation will contribute to: 1) the existing literature on teacher professional identity, 2) knowledge on the extent to which teacher professional identity is influenced by specific personal and context factors, 3) the conceptualization of teacher professional identity based on empirical data, and 4) knowledge about the extent to which the indicators of teacher professional identity are related to effective teaching behaviours (see Figure 1.1).
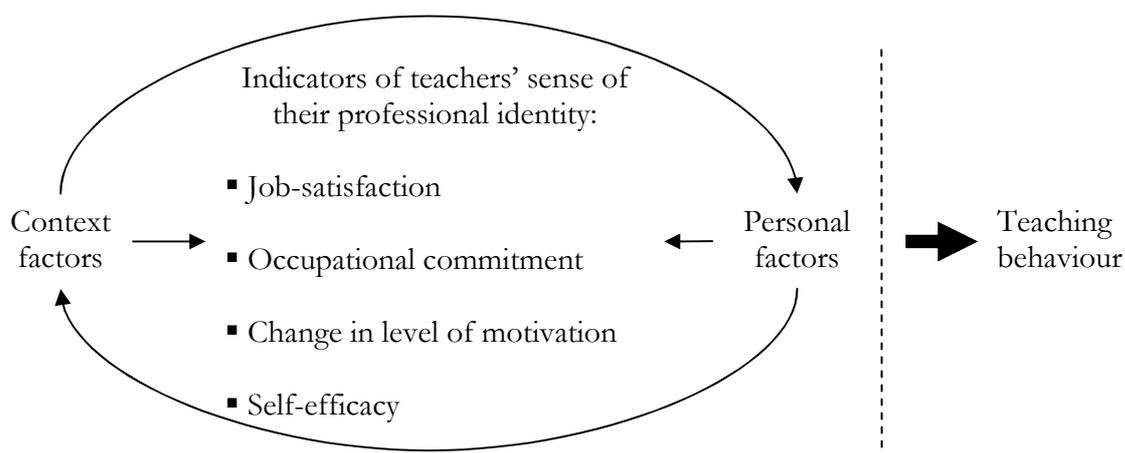

Figure 1.1 Indicators of teachers' sense of their professional identity and it's relationship with teachers' teaching behaviour

Much previous research has focused mainly on the development of teacher professional identity. As a consequence, student teachers or beginning teachers have often participated in such studies. In this dissertation the focus is on a sample of teachers with a broad range of

experience. Moreover, many studies performed on teacher professional identity have used small samples and qualitative methods (cf. Volkmann & Anderson, 1998). In this dissertation a large sample size and a quantitative approach are used.

This dissertation also aims to translate the empirical findings to the teaching practice. We will find out whether there is actually a relationship between teacher professional identity and teaching behaviour. Such findings are relevant for schools and policymakers who are interested in affecting and improving teacher behaviours. Similarly, our findings will be of interest to personnel consultants who support teachers in their professional development. Furthermore, understanding the actual relationships between the indicators of teacher professional identity may present possibilities for influencing this identity.

1.5. Overview of the dissertation

Chapter 2 focuses on the first research question. It describes the development of an online instrument contributing to the understanding of teachers' sense of their professional identity. The second research question is answered in *Chapter 3*. A model of the relationships between the indicators of teachers' sense of their professional identity is proposed. Using data from 1214 teachers working in secondary education this model is tested empirically.

Based on the data of the same 1214 teachers, professional identity profiles are constructed in *Chapter 4*. The focus in this chapter is on the third research question. Differences between the observed profiles in teachers' perceived development opportunities, perceived level of autonomy, teachers' amount of experience in education, teachers' main reason to become a teacher, and the features of their appointments are investigated.

Chapter 5 describes the relationship between the professional identity profiles found in chapter 4 and teachers' educational beliefs about the objectives of education and students' role in teaching.

In *Chapter 6*, it is investigated whether teachers with different professional identity profiles differ in their effective teaching behaviours as observed by two external observers and by the teachers' students.

Chapter 7 concludes this dissertation. The main results are summarised and discussed. Furthermore, the practical implications and limitations of the presented findings are put forward. Lastly, future opportunities for expanding the existing knowledge on teachers' sense of their professional identity are considered.