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Profiling teachers’ sense of professional identity

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This study shows that professional identity should not be viewed as a composed variable with a uniform structure. Based on the literature and previous research, we view teachers’ job satisfaction, self-efficacy, occupational commitment and change in the level of motivation as indicators of teachers’ professional identity. Using two-step cluster analysis, three distinct professional identity profiles have empirically been identified, based on data of 1214 teachers working in secondary education in the Netherlands. These profiles differed significantly regarding the indicators of teachers’ professional identity. Teachers belonging to the found profiles did not significantly differ in their amount of experience.

Keywords: professional identity; teaching; identification; teaching experience

Introduction

Within the field of teaching and teacher education, teachers’ sense of their professional identity has been the focus of many studies (see for a review, Beijaard, Meijer, and Verloop 2004). These studies mainly focus on background factors that affect – the development of – teachers’ professional identity (e.g. Schepens, Aelterman, and Vlerick 2009). Although limited in number, studies investigating how teachers’ professional identity influences certain dependent variables exist too. Kremer and Hofman (1985) and Moore and Hofman (1988) found professional identity to be indicative for teachers’ job-leaving intentions. Nias (1989) and Day (2002) claim that professional identity is related to how teachers respond to educational reforms.

The construct of professional identity has mainly been viewed and empirically treated as a latent variable with a uniform structure (e.g. Khapova et al. 2007). Day and colleagues (2006), however, found that teachers balance three relevant dimensions in their work: a personal dimension (teachers’ life outside the school), a professional dimension (social and policy expectations of what a good teacher is and teachers’ own educational ideals) and a situational dimension (the direct working environment of the teacher). Through the way these dimensions interact, different professional identities are formed. Here, we do not depart from balancing dimensions resulting in a specific professional identity but from relevant indicators of teachers’ sense of their professional identity: teachers’ job satisfaction, self-efficacy, occupational commitment and their level of change in motivation.

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Our main aim is to empirically identify different professional identity profiles by investigating the scores on the indicators of teachers’ sense of their professional identity of a large sample of practicing teachers. Whether teachers belonging to different professional identity profiles differ in their amount of experience is investigated as well. Additionally, the assumption is tested that these profiles do not differ in their perceived levels of development opportunities and autonomy. Finally, differences between teachers with different professional identity profiles in features of the teachers’ appointments and teachers’ reasons for choosing the teaching profession are explored.

Identity
Notwithstanding much research, the concept identity has been difficult to define in a clear-cut way. A distinction between a social identity and a personal identity has evolved since Mead (1934) stated that the self develops by interacting with the environment, resulting in a sociological component of the self (the me) and a more personal component (the I) (Beijaard et al. 2004). Trafimow, Triandis, and Goto (1991) hypothesised that there could be various types of personal and social identities. Deaux et al. (1995) explored possible dimensions and categories of social identities. They asked 259 psychology students to rate the 64 identities (e.g. mother, gardener) presented to them on 15 selected traits (e.g. visibility, changeability) by the use of a seven-point Likert scale. Cluster analysis revealed five distinct identities. One of those identities was called vocation/avocation (e.g. scientist, musician). Although Deaux et al. did not further define this identity, it strengthens the notion of the existence of a vocational, or what is called here, professional identity.

Professional identity
Teachers’ professional identity generally pertains to how teachers see themselves based on their interpretations of their continuing interaction with their context. It is argued here that this interaction manifests itself in teachers’ job satisfaction, occupational commitment, self-efficacy and change in the level of motivation. These constructs are often described in the literature as being important to teacher behaviour (cf. Ashton and Webb 1986; Firestone 1996; Watt and Richardson 2008), and they represent a personal perspective on how teachers view themselves as professionals in their work. Job satisfaction has been defined in various ways in the past (European Foundation for the Improvement of Living and Working Conditions 2006). Roughly speaking, these definitions can be divided into three types: (1) job satisfaction as a simple affective variable in terms of you like or you do not like (certain aspects of) your job (e.g. Spector 1997); (2) job satisfaction as a degree of fulfilment of one’s needs or desires regarding the job (e.g. Mottet et al. 2004); and (3) job satisfaction as a weighing of input and output or a weighing of the current job versus a different job (e.g. Davis and Wilson 2000). The definition of job satisfaction used by Van der Ploeg and Scholte (2003) is followed here. They define job satisfaction as “an attitude based on an evaluation of relevant aspects of the work and work situation” (277). This definition takes into account all the above-mentioned definitions. It furthermore focuses on the evaluation of aspects of the work itself as well as on aspects of the context in which one works.
Lee, Carswell, and Allen’s definition is followed for occupational commitment: “a psychological link between a person and his or her occupation that is based on an affective reaction to that occupation” (2000, 800). This definition is in line with other studies (e.g. Meyer, Allen, and Smith 1993) in which “occupational” commitment is selected instead of “career” commitment to avoid confusion, because “career” can be interpreted as the series of work-related activities over an individual’s lifetime (Lee et al. 2000).

Regarding definitions of teacher self-efficacy, some authors focus solely on teachers’ perceived ability to affect student outcomes (e.g. De la Torre Cruz and Casanova Arias 2007). Other authors pay additional attention to the context in which the teacher works (e.g. Tschannen-Moran, Hoy, and Hoy 1998). The definition of Friedman and Kass (2002) is followed here as their definition takes various levels of context as well as relational aspects into account, which play an important role in the work teachers do. They define self-efficacy as:

a teacher’s perception of his or her ability to: (a) perform required professional tasks and to regulate relations involved in the process of teaching and educating students; and (b) perform organizational tasks, become part of the organization and its political and social processes. (684)

Finally, motivation is mostly perceived as that what starts, sustains and concentrates behaviour (e.g. Sinclair, Dowson, and McInerney 2006). Latham and Pinder (2005) refined the definition of motivation further for the concept of work motivation. They define work motivation as “a set of energetic forces that originate both within as well as beyond an individual’s being, to initiate work-related behaviour and to determine its form, direction, intensity, and duration” (486). In this study, motivation is viewed as such an energetic force as well. We believe that, as motivation drives behaviour, it similarly drives the other constructs mentioned above. Change in the level of motivation will thus be of influence on how teachers currently perceive these constructs.

Thus, teachers’ job satisfaction, occupational commitment, self-efficacy and change in the level of motivation are viewed here as indicators of teachers’ sense of their professional identity. They play an important role in teachers’ work and lives and represent the result of the interaction between the teachers and their specific context.

**Research aims and assumptions**

Identity construction is, in reality, complex and characterised by continuous interpretation and reinterpretation of experiences and encounters (Beijaard et al. 2004). This relates to Brewer’s (1991) optimal distinctiveness theory: the personal and the social need to be balanced. A person strives to obtain a perfect balance between assimilation and differentiation within and between groups. Too much of either – assimilation or differentiation – results in counterbalancing behaviour (Brewer 1991). Thus, when a person experiences too much assimilation, this person will look for distinctive features of him-/herself that makes him or her different from features of the group of comparison. On the other hand, when a person experiences too much differentiation, this person will look for features of him-/herself that make him or her similar to that group. Applying this theory to teachers’ sense of their professional identity means teachers will have a shared identity in their profession but, at the same time, will differentiate
themselves from the group to balance their level of inclusion. This being true, one cannot view professional identity as an identity attributable to all teachers in the same fashion. The main aim of this study is, therefore, to investigate whether different professional identity profiles are empirically evident in a large sample of practicing teachers.

Additionally, it is investigated whether teachers with different professional identity profiles differ in their amount of experience. In previous research, it has been stated 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 finally evolves through rehearsal and experience. This suggests a distinction in professional identity profiles between teachers with different amounts of experience. As the profiles are yet unclear, it is not possible to make specific hypotheses about how these profiles will be related to teachers’ level of experience. Nevertheless, it is assumed that professional identity profiles are associated with specific amounts of experience.

The second assumption investigated originates from the notion that teachers share a common profession. Nixon states that teaching should be recognised as an “important area of professional expertise in its own right” (1996, 14). To strengthen this expertise, professional development opportunities are deemed important (Nixon 1996). According to Kwakman (1999), professional development of teachers not only implies quality improvements in the school but also implies opportunities for the development of teachers personally and professionally. As professional development opportunities are important for teachers’ professional work, we expect teachers to be similar in their perceptions of these opportunities. Therefore, we assume that identity profiles are not associated with differences in perceived development opportunities.

Likewise, autonomy is viewed as an aspect making teaching a profession (Van Veen 2008) and contributing to teachers’ sense of professionalism. Hargreaves (2000) states that more and more rules and regulations are being imposed on teachers. He pleads to re-establish a higher level of autonomy for teachers regarding their classroom judgement. Similarly to the assumption regarding teachers’ perceived development opportunities, we assume that identity profiles are not associated with differences in perceived levels of autonomy.

Although teachers share a common profession, they can differ in their type and size of appointment, whether or not they carry out extra tasks besides teaching, and can differ in the time they have been working with their current employer. Possibly, these features are of influence on the construction of a professional identity, resulting in a specific professional identity profile. As well, teachers with a specific professional identity profile may choose appointments with certain characteristics. Whether teachers with different identity profiles differ regarding these features of their appointment needs to be explored first, before investigating these possibilities further.

Additionally, it is investigated in an exploratory fashion whether teachers belonging to the found identity profiles differ in their main reason for choosing the teaching profession. Such reasons are viewed here as push and pull factors for teachers’ level of motivation. Teachers’ reasons for choosing the teaching profession have generally been divided into intrinsic, extrinsic and altruistic reasons (Bastick 2000). Although this distinction is most common, Huberman, Grounauer, and Marti (1993) have divided these reasons into two types: professional versus material reasons. More recently, Richardson and Watt (2006) have distinguished five types of reasons for teaching based on Wigfield and Eccles’ (2000) expectancy-value theory. Sinclair,
Dowson, and McInerney (2006) speculated that the type of reason for choosing the profession will make a difference for teachers’ intention to remain in the occupation. Possibly, these reasons make a difference for teachers’ professional identity as well. Theory is lacking regarding this possibility. Therefore, the teachers’ main reasons for choosing the teaching profession are explored in relation to their professional identity profile.

Method

Participants

An online survey was distributed among 5575 teachers working in secondary education in the Netherlands. These teachers received an e-mail invitation to participate. The teachers’ e-mail addresses were retrieved from the websites of their schools. The survey was personalised by giving each participant a link in the e-mail with which s/he could enter the questionnaire. Teachers who did not respond or who only partially completed the instrument were sent a reminder e-mail after two weeks. Teachers were asked to reply and give some biographical data as well if they did not want to participate. In total, 614 (11.01%) teachers replied they did not want to participate. They mainly stated that a heavy workload and consequent lack of time for surveys were their reasons for not participating.

Of the 5575 teachers approached, 1214 (21.8%) completed the survey. The distribution of male and female respondents was 52.9% and 45.2%, respectively. The average age was 44 years (SD = 11.1), and the average amount of experience in education was 17 years (SD = 11.6). This is an accurate representation of the Dutch population of secondary school teachers (Dutch Ministry of Education, Culture and Science 2007).

Data collection

The distributed survey investigated the indicators of teachers’ sense of their professional identity: teachers’ job satisfaction, self-efficacy, occupational commitment and change in the level of motivation. Subtracting teachers’ score on the question “How motivated were you when you started teaching?” from teachers’ score on the question “How motivated are you currently?” determined teachers’ change in the level of motivation. The items measuring job satisfaction, self-efficacy and occupational commitment were submitted to principal component analysis (PCA), because the instruments used to measure these constructs had not yet been used together in a Dutch context. Which items would be closely related and which items would, together, constitute an indicator were therefore explored. The variable measuring change in the level of motivation was left out of the PCA, as it consisted of only one item.

Table 1 presents the final indicators and their features. Based on the PCA, job satisfaction, measured on a five-point Likert scale, was split into teachers’ job satisfaction and teachers’ satisfaction with their salary. The indicator “job satisfaction” furthermore contained self-efficacy items on teachers’ relationship with school administrators, measured on a six-point Likert scale. Teachers’ classroom self-efficacy was a separate indicator, explaining 10.1% of variance. Occupational commitment, measured on a seven-point Likert scale, was split into teachers’ affective occupational commitment (referring to positive emotions towards the occupation) and responsibility
Table 1. Indicators of teachers' sense of their professional identity.

<table>
<thead>
<tr>
<th>Indicator name</th>
<th>Content</th>
<th>No. of items</th>
<th>Alpha</th>
<th>% explained variance</th>
<th>Example item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in level of motivation&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Subtraction of the motivation score at the start of teaching from the score of the current motivation</td>
<td></td>
<td></td>
<td></td>
<td>How motivated were you when you started teaching?</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>Self-efficacy and job satisfaction items regarding the relationship with school administrators and job satisfaction items on relationships, autonomy and support</td>
<td>22</td>
<td>.89</td>
<td>15.7</td>
<td>In this work, I feel valued by my directors</td>
</tr>
<tr>
<td>Classroom self-efficacy</td>
<td>Self-efficacy items on classroom practice</td>
<td>21</td>
<td>.92</td>
<td>10.1</td>
<td>To what extent do you agree with the statement: I think I can be very creative in my work with students</td>
</tr>
<tr>
<td>Responsibility to remain in teaching</td>
<td>A mix of normative&lt;sup&gt;b&lt;/sup&gt; and continuance&lt;sup&gt;b&lt;/sup&gt; occupational commitment items</td>
<td>12</td>
<td>.80</td>
<td>5.9</td>
<td>Changing my profession now would be difficult for me to do</td>
</tr>
<tr>
<td>Salary satisfaction</td>
<td>Job satisfaction items on salary and fringe benefits</td>
<td>6</td>
<td>.81</td>
<td>3.8</td>
<td>My salary matches with my qualifications and skills</td>
</tr>
<tr>
<td>Affective occupational commitment</td>
<td>A mix of affective occupational commitment items and job satisfaction items on work</td>
<td>10</td>
<td>.83</td>
<td>3.6</td>
<td>To what extent do you agree with the statement: I like the work I do a lot</td>
</tr>
</tbody>
</table>

<sup>a</sup>As this is a constructed variable, existing of one item excluded from the PCA, alpha and the % explained variance are not included in the table.

<sup>b</sup>Normative commitment refers to the sense of obligation to remain in the occupation, continuance commitment refers to the awareness of the costs associated with leaving the occupation (Meyer, Allen, and Smith 1993).
to remain in teaching (referring to the sense of obligation to remain in the occupation and the awareness of the costs associated with leaving the occupation). The internal consistencies of the indicators ranged from .81 (satisfaction with salary) to .92 (classroom self-efficacy).

Additionally, teachers were asked about their perceived development opportunities (e.g. “to what extent have there been made agreements in your school about teachers’ professional development?”) and perceived level of autonomy (e.g. “to what extent can you determine the content of tests?”) on a four-point Likert scale. These aspects showed internal consistencies of .84 and .85, respectively, based on 8 and 13 items. Furthermore, teachers were asked, using an open-ended question, to state their main reason for becoming a teacher. Lastly, teachers were asked about the type and size of their appointment, as well as whether they performed extra tasks besides teaching. They were also asked how long – in months – they had been working for their current employer.

Data analysis

The item scores were standardised, as items with differing Likert scales loaded on similar factors, for instance in the case of the indicator “job satisfaction”. As mentioned above, this indicator contains self-efficacy items on the relationship with school administrators, measured on a six-point Likert scale, as well as job satisfaction items, measured on a five-point Likert scale. Each participant’s mean score was calculated for each indicator and used in following analyses.

Teachers’ responses on the open-ended question asking for the main reason for becoming a teacher were coded by two researchers. They used codes originating from the Dutch-adapted version of Richardson and Watt’s (2006) FIT-Choice Scale. Although teachers were asked to state their main reason to become a teacher, many teachers mentioned multiple reasons. Additionally, many reasons mentioned contained multiple codes, for example: “having to do with and transfer knowledge to young people” (teacher 2159). The researchers coded the first mentioned reason and ascribed only one code. In the case of the example, the code working with children/adolescents was ascribed because having to do with young people is mentioned first. Inter-rater agreement was calculated by kappa (κ) (Fleiss, Levin, and Paik 2003). Here, κ was .65, which is substantial (Landis and Koch 1977). Cases without agreement were discussed until agreement was reached.

To construct identity profiles, a two-step cluster analysis (Norušis 2008) was performed on the survey data. Differences between the clusters regarding the indicators of teachers’ sense of their professional identity, as well as regarding teachers’ perceived development opportunities and autonomy, were investigated using ANOVAs. Pearson’s chi-square test was used to test whether teachers belonging to different professional identity profiles differed in their amount of experience.

Results

The two-step cluster analysis resulted in three distinct identity profiles. Figure 1 shows the scores of each profile on the indicators. Teachers belonging to the first profile (called here “unsatisfied and demotivated identity profile”) show a large decrease in their level of motivation (in black) and have the lowest scores on their job
Teachers with the second profile (called here “motivated and affectively committed identity profile”) are found to have a positive position towards the indicators of teachers’ professional identity. Their motivation for teaching has increased compared to when they started teaching. Compared to the other profiles, their affective occupational commitment, job satisfaction and self-efficacy are the highest. Regarding their satisfaction with their salary, these teachers report an average score. Finally, profile three (called here “competence doubting identity profile”) consists of teachers scoring lowest on self-efficacy and scoring highest on satisfaction with salary. On the other indicators they score moderate with little change in their level of motivation since starting teaching.

The raw scores for each factor are presented per profile in Table 2. For the factors job satisfaction and affective occupational commitment, the means of the items with different Likert scales are mentioned separately.

Based on ANOVA, all indicators of teachers’ sense of their professional identity differ significantly ($p < .01$) across the profiles, ranging from $F(2,1211) = 723.89$, $p < .01$ for affective occupational commitment, to $F(2,1211) = 6.60$, $p < .01$ for responsibility to remain in teaching. Bonferroni post-hoc comparison indicates that only the difference between the motivated and affectively committed teachers and the competence doubting teachers regarding their responsibility to remain in teaching was not significant ($M = .04$, $SD = .04$, $p = .87$).

Significant differences between profiles in teachers’ amount of experience were not found ($\chi^2(8) = 8.14$, $p > .05$). Table 3 shows the frequencies of each experience group per profile.
<table>
<thead>
<tr>
<th>Factor</th>
<th>Content</th>
<th>Unsatisfied and demotivated identity profile (N = 235)</th>
<th>Motivated and affectively committed identity profile (N = 560)</th>
<th>Competence doubting identity profile (N = 419)</th>
<th>Total (N = 1214)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satisfaction</td>
<td>▪ Self-efficacy items regarding the relationship with school administrators</td>
<td>3.01 (.75)</td>
<td>4.14 (.75)</td>
<td>3.56 (.63)</td>
<td>3.72 (.83)</td>
</tr>
<tr>
<td></td>
<td>▪ Job satisfaction items on relationships, autonomy, support and relationship with school administrators</td>
<td>2.87 (.51)</td>
<td>3.94 (.45)</td>
<td>3.52 (.40)</td>
<td>3.59 (.60)</td>
</tr>
<tr>
<td>Classroom self-efficacy</td>
<td>Self-efficacy items</td>
<td>4.32 (.64)</td>
<td>4.71 (.41)</td>
<td>4.00 (.40)</td>
<td>4.39 (.56)</td>
</tr>
<tr>
<td>Responsibility to remain in teaching</td>
<td>Normative(^a) and continuance(^a) occupational commitment items</td>
<td>3.13 (1.10)</td>
<td>3.42 (1.14)</td>
<td>3.48 (.91)</td>
<td>3.39 (1.06)</td>
</tr>
<tr>
<td>Salary satisfaction</td>
<td>Job satisfaction items on salary and fringe benefits</td>
<td>2.09 (.69)</td>
<td>2.66 (.84)</td>
<td>2.97 (.66)</td>
<td>2.66 (.82)</td>
</tr>
<tr>
<td>Affective occupational commitment</td>
<td>Affective occupational commitment items</td>
<td>4.58 (1.23)</td>
<td>6.28 (.70)</td>
<td>5.45 (.92)</td>
<td>5.66 (1.11)</td>
</tr>
<tr>
<td></td>
<td>▪ Job satisfaction items on work</td>
<td>-1.26 (1.57)</td>
<td>.57 (1.11)</td>
<td>-0.05 (.96)</td>
<td>.00 (1.35)</td>
</tr>
</tbody>
</table>

\(^a\)Normative commitment refers to the sense of obligation to remain in the occupation, continuance commitment refers to the awareness of the costs associated with leaving the occupation (Meyer, Allen, and Smith 1993).
Likewise, no significant difference between the profiles was found in teachers’ perceived professional development opportunities ($F(2,1211) = .09, p = .92$) and perceived level of autonomy ($F(2,1211) = .06, p = .94$). Teachers with different professional identity profiles, thus, have comparable scores on their perceived level of autonomy and perceived opportunities for professional development.

The coding of the answers to the open-ended question on teachers’ reasons to become a teacher revealed that the teachers of the three identity profiles show great similarities in their reasons to become a teacher and do not significantly differ ($\chi^2(30) = 35.25, p > .05$). The four most mentioned reasons are presented in Table 4. For all three profiles, working with children and adolescents has been mentioned by the highest percentage of teachers. Love for subject matter, transfer of knowledge and skills and intrinsic career value (referring to interest in teaching and always having wanted to become a teacher) are the other three most mentioned reasons, but their rank differs depending on the profile. The motivated and affectively committed identity profile has the highest percentage of teachers mentioning working with children/adolescents, love for subject matter and intrinsic career value as their primary reason. The competence doubting identity profile has the highest percentage of teachers mentioning transfer of knowledge and skills as their primary reason.

Table 3. Frequencies in amount of experience for each professional identity profile.

<table>
<thead>
<tr>
<th>Amount of experience in education</th>
<th>Unsatisfied and demotivated identity profile ($N = 235$)</th>
<th>Motivated and affectively committed identity profile ($N = 560$)</th>
<th>Competence doubting identity profile ($N = 419$)</th>
<th>Total ($N = 1214$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–5 years frequency (%)</td>
<td>43 (18.3)</td>
<td>124 (22.1)</td>
<td>98 (23.4)</td>
<td>265 (21.8)</td>
</tr>
<tr>
<td>5–10 years frequency (%)</td>
<td>58 (24.7)</td>
<td>116 (20.7)</td>
<td>77 (18.4)</td>
<td>251 (20.7)</td>
</tr>
<tr>
<td>10–25 years frequency (%)</td>
<td>72 (30.6)</td>
<td>158 (28.2)</td>
<td>114 (27.2)</td>
<td>344 (28.3)</td>
</tr>
<tr>
<td>25–30 years frequency (%)</td>
<td>19 (8.1)</td>
<td>57 (10.2)</td>
<td>52 (12.4)</td>
<td>128 (10.5)</td>
</tr>
<tr>
<td>30+ years frequency (%)</td>
<td>43 (18.3)</td>
<td>102 (18.2)</td>
<td>76 (18.1)</td>
<td>221 (18.2)</td>
</tr>
<tr>
<td>Total mean (SD)</td>
<td>46.8 (11.3)</td>
<td>16.8 (11.6)</td>
<td>17.1 (11.8)</td>
<td>16.9 (11.6)</td>
</tr>
</tbody>
</table>

Note: Five teachers did not indicate their amount of experience.

Table 4. The four most mentioned reasons to become a teacher for each profile.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Unsatisfied and demotivated identity profile ($N = 224$)</th>
<th>Motivated and affectively committed identity profile ($N = 541$)</th>
<th>Competence doubting identity profile ($N = 403$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Working with children/adolescents (28.1%)</td>
<td>Working with children/adolescents (36.4%)</td>
<td>Working with children/adolescents (32.7%)</td>
</tr>
<tr>
<td>2</td>
<td>Love for subject matter (8.9%)</td>
<td>Love for subject matter (10.2%)</td>
<td>Transfer of knowledge and skills (11.2%)</td>
</tr>
<tr>
<td>3</td>
<td>Transfer of knowledge and skills (8.5%)</td>
<td>Intrinsic career valuea (9.3%)</td>
<td>Love for subject matter (9.8%)</td>
</tr>
<tr>
<td>4</td>
<td>Intrinsic career valuea (7.2%)</td>
<td>Transfer of knowledge and skills (8.0%)</td>
<td>Intrinsic career valuea (6.9%)</td>
</tr>
</tbody>
</table>

aIntrinsic career value refers to interest in teaching and always having wanted to become a teacher.
The ranking of the reasons are very similar as well. Correlations between the rankings of the reasons ranged from .86 between the unsatisfied and demotivated identity profile and motivated and affectively committed identity profile, to .91 between the motivated and affectively committed identity profile and competence doubting identity profile (all $ps < .01$).

In addition to the above findings, teachers belonging to different professional identity profiles were compared based on the features of their appointment (see Table 5). The motivated and affectively committed identity profile differs significantly from the unsatisfied and demotivated identity profile and competence doubting identity profile in the type of appointment ($\chi^2(1) = 6.72, p < .05$ and $\chi^2(1) = 6.61, p < .05$, respectively). The motivated and affectively committed identity has the highest percentage of teachers (88.4%) with a permanent appointment. Furthermore, the three profiles differ significantly in size of appointment ($F(2,1158) = 7.85, p < .01$). Bonferroni post-hoc test reveals that teachers belonging to unsatisfied and demotivated identity profile and motivated and affectively committed identity profile have significantly larger contracts than those belonging to the competence doubting identity profile ($M = .05, SD = .02, p < .01$ and $M = .05, SD = .01, p < .01$ respectively). Lastly, significantly more teachers with a motivated and affectively committed identity profile carry out extra tasks compared to those with a competence doubting identity profile ($\chi^2(1) = 8.87, p < .01$). The time – in months – teachers have been working for their current employer does not show significant differences between the identity profiles ($F(2,1185) = .84, p > .05$).

Summarising, three professional identity profiles have been found using teachers’ scores on relevant indicators of teachers’ sense of their professional identity (teachers’ job satisfaction, occupational commitment, change in the level of motivation and self-efficacy). Teachers belonging to these profiles differ significantly from each other on these indicators. They do not significantly differ regarding their amount of experience, perceived professional development opportunities, perceived level of autonomy, or their main reason for entering the teaching profession. The motivated and affectively committed identity profile includes the most

Table 5. Appointment features distinguishing between the professional identity profiles.

<table>
<thead>
<tr>
<th>Features</th>
<th>Unsatisfied and demotivated identity profile ($N = 235$)</th>
<th>Motivated and affectively committed identity profile ($N = 560$)</th>
<th>Competence doubting identity profile ($N = 419$)</th>
<th>Total ($N = 1229$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of appointment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent frequency (%)</td>
<td>194 (82.6)</td>
<td>495 (88.4)</td>
<td>342 (81.6)</td>
<td>1046 (85.1)</td>
</tr>
<tr>
<td>Temporarily frequency (%)</td>
<td>38 (16.2)</td>
<td>54 (9.6)</td>
<td>62 (14.8)</td>
<td>154 (12.5)</td>
</tr>
<tr>
<td>Size of appointment mean fte&lt;sup&gt;a&lt;/sup&gt; (SD)</td>
<td>.87 (.19)</td>
<td>.87 (.20)</td>
<td>.82 (.22)</td>
<td>.85 (.20)</td>
</tr>
<tr>
<td>Extra tasks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes frequency (%)</td>
<td>136 (57.9)</td>
<td>362 (64.6)</td>
<td>232 (55.4)</td>
<td>739 (60.1)</td>
</tr>
<tr>
<td>No frequency (%)</td>
<td>94 (40.0)</td>
<td>191 (34.1)</td>
<td>182 (43.4)</td>
<td>472 (38.4)</td>
</tr>
<tr>
<td>Time with employer (months)</td>
<td>129 (122)</td>
<td>137 (125)</td>
<td>143 (128)</td>
<td>137 (125)</td>
</tr>
</tbody>
</table>

Note: <sup>a</sup>fte refers to full-time equivalent.
teachers with a permanent appointment, the least teachers with a temporary appointment, the most teachers with extra tasks besides their teaching task and, together with the unsatisfied and demotivated identity profile, teachers with the largest appointment.

Conclusion and discussion
The main aim of this study was to empirically determine different professional identity profiles of teachers. We investigated the scores on the indicators of teachers’ sense of their professional identity (change in the level of motivation, job satisfaction, occupational commitment and self-efficacy) of a large sample of practicing teachers. Three distinct professional identity profiles have been found: (1) an unsatisfied and demotivated identity profile, consisting of teachers who score negative on the indicators; (2) a motivated and affectively committed identity profile, consisting of teachers who score positive on the indicators; and (3) a competence doubting identity profile, consisting of teachers with a more diverse score pattern.

This finding strengthens the proposition that professional identity is not an identity which is attributable in a similar fashion to all teachers. It is shaped through continuous interaction between person and context. How teachers perceive the result of this interaction is reflected in their change in the level of motivation, their job satisfaction, occupational commitment and self-efficacy. The present study has zoomed in on the context of teachers’ – perception of their – direct work environment. Previous research of Day and colleagues (2006) incorporated teachers’ life outside school and social and policy expectations of what makes a good teacher, in the attempt to understand teachers’ professional identity. The results presented here show that, when focusing on teachers’ direct working environment, teachers’ sense of their professional identity is already clearly differentiated.

Furthermore, although teachers differ in their sense of professional identity, teachers with different professional identity profiles do not differ in their perceived level of autonomy or perceived professional development opportunities. These findings are in line with our assumptions. Teachers not only differentiate themselves from their professional group, they strive for a certain amount of integration (Brewer 1991) at the same time. Autonomy and professional development opportunities appear to bind teachers as a group of professionals.

Equality was found as well in teachers’ amount of experience. Although it was assumed that teachers’ amount of experience would be associated with the professional identity profiles to be found, no such association was apparent. The results of this study show that teachers with different professional identity profiles do not differ in their amount of experience. This contrasts Ibarra’s (1999) findings of beginning professionals constructing a provisional professional identity before finalising their professional identity after rehearsal and experience. Relating the observed professional identity profiles to Ibarra’s work suggests that more beginning teachers would have the competence doubting identity profile, as this profile shows diverse scores on the indicators of teachers’ professional identity. As this was not the case and no differences were found, teachers’ sense of their professional identity is, apparently, not exclusively related to experience.

The differences between the three profiles are most apparent in the change in teachers’ level of motivation. This change in the level of motivation could be the drive behind the scores on the other indicators. Previous research has shown and suggested
relationships between motivation and self-efficacy (Schepers et al. 2005), job satisfaction (Davis and Wilson 2000) and occupational commitment (Sinclair et al. 2006). Furthermore, starting their profession, teachers have a certain perspective on what teaching entails. These perspectives are not always in line with reality. This gap between the ideas trainee teachers have about teaching and their experiences in the field generally has a negative connotation as it often results in a decline in the level of motivation for the profession. Nevertheless, there are teachers who enter the teaching profession as a fall-back career (Watt and Richardson 2008) and now are very motivated for their chosen profession. Both types of teachers may have experienced a change in perception of their professional identity. The former teachers could have experienced that teaching is not as they had perceived it to be in advance: a profession fitting their perception of their working selves. The latter teachers could have had the opposite experience: teaching as a fall-back career, but fitting very well with their view of their working selves in the end. This change may very well have influenced the other indicators.

The participating teachers have given an indication of their sense of their professional identity represented by the balance in their job satisfaction, change in the level of motivation, their self-efficacy and their occupational commitment. The motivated and affectively committed identity profile contains the largest group of teachers, which is a positive finding. Nevertheless, the group of teachers within the unsatisfied and demotivated identity profile is almost as large as 20%. Their scores on the indicators are concerning. They lack commitment and satisfaction, and their motivation has clearly dropped since they started teaching. These teachers are at risk for getting burned out and may very well leave the profession completely.

Attention should be paid to these teachers, not only for the risk of these teachers’ well-being but also because of the growing shortage of teachers (OECD 2008). The answer to the question how to support these teachers apparently does not lie in enhancing their autonomy or giving them more opportunities for professional development, as they do not differ from the other teachers regarding these aspects. Even so, it is not a problem solely of beginning or senior teachers as the teachers belonging to the three professional identity profiles do not differ in their amount of experience.

The presented study is not without limitations. The information about the teachers who did not respond to the questionnaire is very limited. Teachers were asked to reply and give some biographical data if they did not want to participate. Unfortunately, too few teachers responded to this query to be able to accurately describe the characteristics of the non-respondents. Still, the teachers who did participate in this study are an accurate representation of the population of Dutch teachers working in secondary education.

A second limitation concerns the flexibility of the profiles. Although the teachers belonging to the three professional identity profiles do not differ in their amount of experience, this still holds the possibility of teachers changing their profile during the course of their career. Teachers may switch schools or transfer to different districts. School policy may change, resulting in a work environment fitting better or not at all with a teacher’s sense of his or her professional identity. This study has used a cross-sectional design with a large data-set to investigate the profiling of teachers’ sense of their professional identity. If, how and when teachers’ sense of their professional identity changes should be subject of further and longitudinal research.

Other possibilities for further research exist as well. Having found that teachers’ sense of their professional identity should not be viewed as a latent variable with a
uniform structure and not exclusively related to experience, it would be interesting to relate the found profiles to varying outcome variables. Do teachers with different professional identity profiles differ in their response to educational reforms as claimed by Nias (1989) and Day (2002)? Do these teachers differ in their teaching behaviour as well? Do students of teachers with different identity profiles experience differences in their teachers’ behaviour? Research on teachers’ sense of their professional identity should be expanded with answers to these questions. This contributes to the understanding of the concept of identity and professional identity in particular.

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