Chapter five: Teachers’ professional identity and their educational beliefs

Abstract
Teachers’ professional identity is believed to be shaped by many factors, among which teachers’ educational beliefs. This paper focuses on the relationship between teachers’ professional identity profile and their beliefs regarding the objectives of education and students’ role in teaching. Data of 1214 Dutch secondary school teachers were analyzed. Analysis of variance shows that teachers with different professional identity profiles differ in the following beliefs about the objectives of education: ‘stimulating personal and moral development’ and ‘importance of qualification and schooling’. Teachers with different identity profiles do not differ in their beliefs about students’ role in teaching.

This chapter is based on:

5.1. Introduction

In general, a strong relationship may be assumed between how teachers perceive their own professional identity as a teacher and their educational beliefs. This relationship has, nevertheless, hardly been investigated empirically. In a previous study, we distinguished three distinct professional identity profiles in a group of 1214 experienced teachers (Canrinus, Helms-Lorenz, Beijaard, Buitink, & Hofman, in press; see chapter 4). In the present study, we focus on the extent to which the differences found between the profiles can be attributed to differences in these teachers’ educational beliefs. Teachers’ beliefs have been studied extensively and are perceived as a lens through which teachers filter information from external sources (Borko & Putnam, 1996; Fairbanks et al., 2010; Fang, 1996; Kagan, 1992; Pajares, 1992). Teachers’ educational beliefs direct teachers’ actions and their perception of themselves in their function as teachers (Akkerman & Meijer, 2011).

Various studies have emphasized the relevance in teaching of educational beliefs regarding the objectives of education or the main task of a school (e.g., Denessen, 1999; De Vries & Beijaard, 1999; Van Veen, Sleegers, Bergen, & Klaassen, 2001). Likewise, the relevance of educational beliefs on teachers’ and students’ roles in teaching have been put forward as relevant (e.g., Denessen, Michels, & Felling, 2000; De Vries & Beijaard, 1999; Van Veen, Sleegers, Bergen, & Klaassen, 1999). Van Veen et al. (2001) hypothesized that these educational beliefs may be related to each other at the deep, personal level of teachers’ conceptions of themselves as a teacher. Klaassen, Beijaard, and Kelchtermans (1999) refer to the personal perspective of teachers in relation to their professional identity. Teachers use their personal interpretative framework of beliefs and values to express how they see themselves as teachers. Thus, teachers’ perceptions of themselves as teachers are coloured by their personal educational beliefs (Klaassen et al., 1999). This suggests a strong influential relationship between the educational beliefs teachers hold and their professional identity. In this study, these educational beliefs will be investigated in relation to the aforementioned professional identity profiles.

5.2. Teachers’ sense of their professional identity

Teachers’ professional identity generally pertains to how teachers see themselves as teachers based on their interpretations of their continuing interaction with their context (Beijaard, Meijer, & Verloop, 2004; Sugrue, 2005). It is argued here that teachers' sense of their professional identity results from the ongoing interaction between person and context and manifests itself in teachers’ job satisfaction, occupational commitment, self-efficacy, and
These constructs represent a personal perspective on how teachers view themselves as professionals in their work (Kelehterermans, 1993). Teachers’ job satisfaction, occupational commitment, self-efficacy, and motivation are often described in the literature as being important to teacher behaviour (cf. Ashton & Webb, 1986; Firestone, 1996; Toh, Ho, Riley, & Hoh, 2006; Watt & Richardson, 2008).

In this study, these constructs are treated as relevant indicators of teachers’ sense of their professional identity. In a previous study (Canrinus et al., in press; see chapter 4), teachers were clustered based on how they rated themselves on these constructs resulting in three distinct professional identity profiles based on the data of 1214 teachers. The following professional identity profiles could be distinguished: an unsatisfied and demotivated identity profile (n = 235, 19.4 %), a motivated and affectively committed identity profile (n = 560, 46.1 %), and a competence doubting identity profile (n = 419, 34.5 %). In the study of Canrinus et al. (in press; see chapter 4), the indicators were specified further into teachers’ classroom self-efficacy, job satisfaction, feelings of responsibility to remain in teaching, satisfaction with salary, change in level of motivation, and affective occupational commitment. Figure 4.1 (chapter 4, page 59) represents the standardized mean scores of the teachers belonging to the three found professional identity profiles on these six indicators.

Teachers belonging to the unsatisfied and demotivated identity profile show a large decrease in their level of motivation and have the lowest scores on their job satisfaction, feelings of responsibility to remain in teaching, satisfaction with their salary, and affective occupational commitment. Regarding their classroom self-efficacy they score on average. Teachers with the 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, the 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. It has been argued that teachers’ beliefs are strongly related to teachers’ professional identity (Akkerman & Meijer, 2011; Bolhuis, 2000; Hattingh & De Kock, 2008; Van Veen et al., 2001). How the three identity profiles from our previous study (Canrinus et al., in press; see chapter 4) are related to teachers’ beliefs is subject of this chapter.
There are several sources that shape teachers’ educational beliefs. Firstly, as teachers themselves have a long learning history as students, they have developed opinions about what teaching means and how a teacher should teach (Lortie, 1975). Sugrue (2005) refers to these opinions as ‘lay-theories’ that students bring with them when they enter teacher education and start to work as beginning teachers. Such lay-theories are often difficult to change. Secondly, teachers have received teacher training in which they were offered perspectives on education based on theories and research (Haser & Star, 2009). These perspectives may change or extend prior educational beliefs but also result in new beliefs. Thirdly, after or even during their teacher training, teachers have their first ‘field experience’ inside a specific school. During this experience, they learn about the school’s – practical – perspectives on education often expressed in mission statements and preferred teaching methodologies.

Thus, the development of teachers’ beliefs is based on different sources of beliefs. Educational beliefs about the objectives of education and educational beliefs about the students’ role in teaching are the main focus in the present study. To elaborate upon the first, in the literature two extremes are mentioned regarding these beliefs. The first extreme focuses solely on acquiring skills and qualification as educational goal. The other extreme focuses on moral and personal development as the main educational goal. In reality, it is not a matter of either the one or the other extreme (De Vries, 2004). Teachers’ beliefs about the objectives of education will be somewhere in between the mentioned extremes. Beliefs about the objectives of education are a continuing subject of discussion among teachers (Labaree, 1997), not in the least because of overarching policy goals that continually have to be met by schools which often contrast with what teachers find important for schools and their work as teachers. When teachers’ beliefs are challenged, this influences not only the practicalities of their work, it touches upon their professional identity as well (cf. Day, 2002; Hammersley-Fletcher & Qualter, 2010).

Regarding beliefs about students’ role in teaching, two extreme perspectives appear in the literature as well. These extremes regard the student-centeredness of teaching. The first extreme is knowledge and teacher-oriented and regards students’ role as passive consumers of the knowledge presented to them by the teachers. On the other side of the continuum lies the student- and learning-oriented perspective in which students actively participate in the process of education (De Vries, 2004; Van Veen et al., 2001). Again, in practice, beliefs about the students’ role in teaching will be somewhere in between the mentioned extremes. The extent to which students should actively participate in teaching has been the focus of
educational reforms. Chall (2000), for example, refers to the shift in the educational goals of American schools in the beginning of the twentieth century. The goals shifted towards preparing all students for a productive life. A student-centred approach to teaching was thought best for accomplishing this goal, resulting in the arrangement of education in a less formal and less academic way (Chall, 2000). Similar shifts in educational goals have been reported in other countries (e.g., Van Veen et al., 2001) emphasizing the role of students in terms of more active participation. Not only in relation to educational reforms are such beliefs related to teachers’ professional identity. A teacher’s professional identity is also socially constructed (Battey & Franke, 2008), which particularly includes teachers’ interaction with students.

5.3. Method

5.3.1 Data collection
For the construction of the professional identity profiles in our previous study, data had been gathered using an online survey based on existing instruments (see for further details on the instruments: chapter 2, 3, and 4). In addition to biographical information and items measuring the indicators of teachers’ professional identity (teachers’ job satisfaction, change in level of motivation, occupational commitment, and their self-efficacy), teachers’ educational beliefs were measured using the short version of the instrument developed by Denessen et al. (2000).

This instrument consisted of 24 items, measured on a five-point Likert scale with an additional sixth option “I have never thought about this”. The instrument originally consisted of six scales and was designed for an adult population, thus, not specifically for a teacher population. In a pilot study we explored the structure and reliability of the short version of the instrument for a teacher population (Canrinus, Helms-Lorenz, Beijaard, & Buitink, 2008). Based on data of 122 secondary school teachers, four scales were found in an exploratory factor analysis: a) importance of qualification and schooling, b) participation and critical reflection of students, c) stimulating personal and moral development, and d) student discipline. Two scales (‘importance of qualification and schooling’ and ‘stimulating personal and moral development’) resembled the extremes mentioned in the literature in educational beliefs on the objectives of education. The other two scales (‘participation and critical reflection of students’ and ‘student discipline’) resembled the extremes mentioned in the literature in educational beliefs on students’ role in teaching. The factor structuring fitted the
data of the present study. The scales (presented in Table 5.1) are reliable with Crohnbach’s alpha = .70 (student discipline) to alpha = .76 (stimulating personal and moral development).

### Table 5.1 Reliabilities and item examples of the four educational belief scales

<table>
<thead>
<tr>
<th>Scale</th>
<th>No. of items</th>
<th>Alpha</th>
<th>Item example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of qualification and schooling</td>
<td>7</td>
<td>.76</td>
<td>A good education is the key to success in society.</td>
</tr>
<tr>
<td>Participation and critical reflection of students</td>
<td>7</td>
<td>.73</td>
<td>I believe it is normal for students to be critical towards their teacher.</td>
</tr>
<tr>
<td>Stimulating personal and moral development</td>
<td>5</td>
<td>.76</td>
<td>It is a school’s task to teach social skills.</td>
</tr>
<tr>
<td>Student discipline</td>
<td>5</td>
<td>.70</td>
<td>Students should be quiet in class and pay attention well.</td>
</tr>
</tbody>
</table>

5.3.2 Participants

The same 1214 teachers who completed the questionnaire regarding the indicators of teachers’ professional identity (see Canrinus et al., in press; see also chapter 4) had completed the instrument on teachers’ educational beliefs as well. The distribution of male and female respondents was 52.9% and 45.2% respectively, 23 teachers did not indicate their gender. 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 population of Dutch teachers working in secondary education (Dutch Ministry of Education, Culture and Science, 2007).

5.3.3 Data analysis

Analysis of variance (ANOVA) was used to investigate the differences in beliefs between teachers with different professional identity profiles. Correlation analysis was used to further explore the relationships between the separate indicators of teachers’ professional identity and the beliefs.

5.4. Results

The mean scores of all teachers on the belief scales, as well as for each professional identity profile are presented in Table 5.2. This table shows that the beliefs pertaining to
‘participation and critical reflection of students’ and ‘stimulating personal and moral development’ are rated highest and second highest, respectively, by the total group of teachers. Likewise, when investigating the found professional identity profiles, the same pattern is found for teachers with an unsatisfied and demotivated identity profile and for teachers with a motivated and affectively committed identity profile. Teachers with a competence doubting identity profile rated these beliefs equally high (M = 4.29). As is furthermore apparent from Table 5.2, teachers with a competence doubting identity profile rated all beliefs highest compared to the other two profiles, except for the belief ‘participation and critical reflection of students’. This belief is rated equally high by teachers with a competence doubting identity profile and teachers with an unsatisfied and demotivated identity profile.

<table>
<thead>
<tr>
<th>Table 5.2 Mean and standard deviation (in brackets) of teachers with different professional identity profiles on the educational belief scales</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Important of qualification and schooling</strong></td>
</tr>
<tr>
<td>3.47 (.58)</td>
</tr>
<tr>
<td><strong>Participation and critical reflection of students</strong></td>
</tr>
<tr>
<td>4.29 (.39)</td>
</tr>
<tr>
<td><strong>Stimulating personal and moral development</strong></td>
</tr>
<tr>
<td>4.16 (.59)</td>
</tr>
<tr>
<td><strong>Student discipline</strong></td>
</tr>
<tr>
<td>3.88 (.52)</td>
</tr>
</tbody>
</table>

** This score differs significantly (p < .01) from the scores of teachers with one of the other profiles.

Whether the differences between the three profiles are significant was investigated with an ANOVA. Because the three professional identity profiles differ in their size, the assumption of homogeneity of variance regarding the beliefs scores was checked first (Field, 2005). All beliefs factors were found to be similar in their variance (p = .12 - .96) across the
profiles. The ANOVA results revealed a significant difference between the professional identity profiles regarding teachers’ beliefs on the importance of qualification and schooling ($F(2,1211) = 8.67, p < .01$) and stimulating personal and moral development ($F(2,1211) = 5.44, p < .01$). Bonferroni’s post hoc test showed that teachers belonging to the competence doubting identity profile rated these beliefs significantly higher than teachers with an unsatisfied and demotivated profile ($M = .17, SD = .05, p < .01$ and $M = .13, SD = .04, p < .05$ respectively) or a motivated and affectively committed identity profile ($M = .12, SD = .04, p < .01$ and $M = .09, SD = .04, p < .05$ respectively).

To understand this finding, we explored the relationship between the separate six indicators of teachers’ professional identity and the educational belief scales ‘importance of qualification and schooling’ and ‘stimulating personal and moral development’ for the total group of teachers, as well as for each professional identity profile. The bivariate correlation analysis on the data of the total group of teachers revealed a significant relationship between the indicator of teachers’ professional identity ‘satisfaction with salary’ and the educational belief ‘importance of qualification and schooling’ ($r = .11, p < .01$). This implies that the more satisfaction with their salary the teachers report, the more they agree with statements regarding the importance of qualification and schooling. The indicators of teachers’ professional identity and the belief ‘stimulating personal and moral development’ were not significantly related.

Using the data of the separate professional identity profiles revealed a significant relationship as well. Again, the relationship between teachers’ satisfaction with their salary and the educational belief ‘importance of qualification and schooling’ was the single significant relationship ($r = .15, p < .01$), yet, only in the case of teachers with a competence doubting professional identity. Teachers belonging to this profile scored lowest on their self-efficacy and highest on their satisfaction with their salary compared to the other teachers. Thus, in the case of teachers with this profile, we may state that the more satisfaction with their salary these teachers report, the more they agree with statements regarding the importance of qualification and schooling.

5.5. Conclusion

Teachers, who differ from each other in their professional identity profile, differ as well in their educational beliefs regarding the importance of qualification and schooling and stimulating personal and moral development. Teachers with a competence doubting identity profile agree significantly more with statements regarding these beliefs than teachers with
one of the other two identity profiles. Furthermore, the relationships between the separate indicators of teachers’ professional identity and these two beliefs were investigated. Using the data of the total group of teachers revealed a significant relationship between teachers’ satisfaction with their salary and the educational belief ‘importance of qualification and schooling’. When the three professional identity profiles were studied individually, this relationship was only present in the case of the teachers with a competence doubting identity profile.

5.6. Discussion

The previously found identity profiles in the Canrinus et al. (in press, see chapter 4) study do justice to the interrelatedness of personal and contextual factors as emphasized by, for instance, Akkerman and Meijer (2011) and Olsen (2008). Such interrelated process implies teachers’ professional identity is dynamic in its character (e.g., Coldron & Smith, 1999; Sugrue, 2005). Teachers’ beliefs, on the other hand, are believed to be stable (Stipek, Givvin, Salmon, & MacGyvers, 2001) and difficult to change (Borko & Putnam, 1996; Pajares, 1992). According to Pajares (1992), it specifically is this apparently rigid structure of beliefs which is contributing to the understanding of oneself and others as well as one’s place in the world. Pajares furthermore claims that beliefs are related to the construction of groups and social systems. Likewise, Cohen (2010) acknowledges the relevance of beliefs for belonging to particular identity groups. This would suggest that teachers’ professional identity profiles may be influenced, or even determined, by teachers’ beliefs. Indeed differentiation between identity profiles, related to teachers’ educational beliefs, was found in the present study.

Teachers with a competence doubting identity profile agree more with statements on the educational beliefs regarding the importance of qualification and schooling and stimulating personal and moral development compared to teachers with one of the other profiles. Possibly, as these teachers agree the most with these educational beliefs, they encounter most contradictory beliefs from their colleagues and co-workers. Cohen (2010), and others authors (e.g., Alsup, 2006) as well, mention that a teachers’ professional identity is shaped through discourse and negotiated through talk with, for instance, colleagues. Cohen further mentions the relevance of (normative) beliefs held by the group in which a teacher functions for the construction and explication of a professional identity. Possibly, when the discrepancy between personally held beliefs and the beliefs which are held school wide are the largest, teachers may construct a competence doubting identity profile. Yet, causality has
not been investigated in the present study, therefore this explanation’s validity should be investigated in further research.

Surprisingly, no significant differences regarding the beliefs were found between teachers with an unsatisfied and demotivated identity profile and teachers with a motivated and affectively committed identity profile, although these profiles are most in contrast regarding the indicators of teachers’ professional identity. This result may be due to the fairly broadly defined educational beliefs used and which may be perceived as relevant by many. The relatively high ratings in all three identity profiles suggest this as well.

Teachers’ professional identity profiles were formed by the combination of relevant indicators of these profiles. How these indicators individually relate to teachers’ beliefs was investigated as well. Although teachers’ satisfaction with their salary was the only indicator which was significantly related to teachers’ beliefs about the importance of qualification and schooling, we do not believe that this relationship fully explains the differences found between teachers with different identity profiles regarding this belief. The found overall relationship was small and possibly it is the specific combination of the indicators that explains the differences between the profiles. This could be the case as well for the significant difference in teachers’ belief about stimulating personal and moral development found between teachers with different professional identity profiles. None of the indicators individually related significantly to this belief, yet, when investigated in their combination in the professional identity profiles, differences between profiles became apparent. Teachers’ self-efficacy, occupational commitment, motivation, and job satisfaction have been investigated separately and in diverse combinations in various studies (e.g., Cooper-Hakim & Viswesvaran, 2005) but no research has been done which relates them all to one another. The present study shows that investigating the combination of these constructs in relation to teachers’ beliefs is relevant, but more research is necessary in which beliefs are studied which are specifically tuned to teachers.

5.6.1 Limitations and further research

Firstly, using a cross-sectional design, this study was not designed to make claims about causality. Thus, it remains unclear whether teachers who hold specific educational beliefs will construct their professional identities accordingly, or whether teachers with a specific professional identity profile will agree more with specific educational beliefs due to their identity profile. The former may be possible, as the fit between the teacher and his or her context is relevant in this sense (cf. Cohen, 2010). Nevertheless, the latter can not, based on the presented findings, be excluded as a possibility. Likewise, it remains unclear how a
change in teachers’ identity profile does or does not affect teachers’ educational beliefs. Canrinus et al. (in press) found that teachers with different professional identity profiles do not differ in their amount of experience. Still, the possibility that teachers may switch between profiles remains, as teachers may start working in a different setting due to, for instance, a change of job.

Secondly, as mentioned above, the content of the instrument used to measure teachers’ educational beliefs may be defined too broadly to distinguish between teachers’ professional identity profiles. Most teachers rated their agreement with the beliefs statements relatively high. Possibly, more fine-grained measurement instruments should be used to grasp the nuances in teachers’ educational beliefs. As De Vries (2004) put forward, teachers will not relate fully to one or the other extremes on the educational beliefs regarding the objectives of education or students’ role in teaching. In reality, teachers will score somewhere on the line of this continuum. Indeed, teachers rated all scales as relevant, yet it remains unclear where these teachers would place themselves when confronted with a continuum.

Possibly, other types of beliefs may have a stronger relationship with teachers’ professional identity. Beliefs regarding pedagogy, for instance, may result in a more differentiated answering pattern. When focusing on investigating teachers who teach a specific subject, teachers’ beliefs and knowledge about pedagogical content will play an important role in differentiating between teachers’ identity profiles (Meijer & Van Driel, 1999). Likewise, teachers’ epistemological beliefs and teachers’ beliefs about effective teacher behaviours may offer opportunities for further research. Complementing the collected quantitative data with qualitative data (e.g., semi-structured interviews) may give a direction regarding the type of beliefs that are relevant for teachers’ professional identity as well. It may result in further understanding of the relationship between teachers’ beliefs and teachers’ professional identity profiles.