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Can training teachers stimulate career learning conversations? Analysis of vocational training conversations in Dutch secondary vocational education

Annemie Wintersa*, Frans Meijersb, Marinka Kuijpersb and Herman Baerta


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In present-day society students are no longer expected to learn for stable employment, but for lifelong employability. This implies a major shift in educational approach. Previous research has shown which characteristics of learning environments correlate with students’ competences to self-direct their careers, but until now this had not inspired intervention studies. Following a baseline measure (reported in Winters et al. 2009), we studied vocational training conversations during the transition to competence-based education in the Netherlands and more specifically before and after a specific teacher training. Results show a significant shift in the organisation of career learning conversations as a result of the teacher training, but also highlight the difficulty of actual behavioural change in educational reform.

Keywords: career learning; reflective learning; mentoring/coaching; intervention study; communication

Background and rationale

Our present-day global society with its fast changes in knowledge and technology poses a challenge to educational systems all over Europe, and especially to vocational education (Dochy and Nickmans 2005; Geurts and Meijers 2009). The decline of the grand narratives that used to normatively give direction in the life course, leaves individuals with the opportunity as well as the challenge to give meaning to their lives themselves (Giddens 1991; Beck 1996; Savickas et al. 2010). At a time when the limitations of traditional education are obvious – limited transfer of knowledge (Caravaglia 1993), little student motivation (Bailey, Hughes, and Moore 2004) and high dropout (Meijers 2008) – implications for education, from macro to micro level, must be addressed.

On a macro level, educational institutions must expand their role as training institutes to include career guidance (Baert, Dekeyser, and Sterck 2002; Company 2009; Law, Meijers, and Wijers 2002; Stroobants, Jans, and Wildemeersch 2001). In Europe, we see this translated in policies concerned with lifelong learning (http://ec.europa.eu/education/lifelong-learning-policy/doc28_en.htm). On a national level,
the Netherlands is one of the front runners in this area as government insisted on a nationwide introduction of competence-based education (Biemans et al. 2004; Wesselink et al. 2007). Although the concept ‘competence-based’ is used inconsistently, from the early stages of this development the aim was to realize a shift in the schools’ culture: no longer the curriculum, but the student him/herself has to be at the centre of the educational process (Commissie Boekhoud 2001; see also Dochy and Nickmans [2005, 50] for a comparison of traditional and competence-based education). However, in recent policy documents we notice a gradual shift from an innovative educational paradigm towards an instrumentalization of these goals at the expense of the student’s career as the central focus (www.mbo2010.nl, “Op weg naar 2010”-series).

On a micro level, individual learners will have to learn to be self-directed in their professional – and nowadays often boundaryless (see Arthur 1994) – careers. We refer to the learning that is required as career learning (see also Law 1996; Savickas 2001). Kuijpers has shown that there are specific career competences that steer the development of a person’s career in a particular direction: career reflection, career shaping and networking (Kuijpers 2003; Kuijpers and Scheerens 2006). These career competences correlate with specific characteristics of learning environments (Kuijpers, Meijers, and Gundy 2011; Kuijpers and Meijers 2012). The characteristics of powerful career learning environments include a combination of problem-based and inquiry-based methods and – most importantly – a career dialogue. Career dialogue is defined as a conversation between the student and his/her mentor about the meaning of the student’s experiences in real-life assignments in the school and in practice, and about the impact these experiences have on the student’s life, identity and career (Meijers and Kuijpers 2007). Given its potential as guidance conversations, we focused our research specifically on vocational training conversations between students and their mentors from school and placement (see further in text).

Meijers, Kuijpers, and Bakker (2006) found in their study in Dutch prevocational and secondary vocational education that only very few schools live up to the conditions for a powerful learning environment. This observation inspired the research and development project titled ‘Career learning in competence-based education’, described in this article. A baseline measure in 2007–2008 showed that vocational training conversations are organized with a lot of attention for students’ academic progress and little attention paid to students’ career and career learning. We were interested to know whether a specific teacher training intervention could stimulate a more career learning oriented approach in teachers’ guidance practice. We studied vocational training conversations – the guidance conversations between teachers, students and mentors from placement (or ‘BPV’ in Dutch; in accordance with Dutch terminology and earlier reports, we will use the term ‘bpv-conversations’ here) – before and after the training. At the time of the baseline measurement, we decided to focus on vocational training conversations since this learning environment and these processes have the potential to stimulate career learning (bringing together the student, teacher and workplace mentor to discuss the student’s experience in the workplace). The additional advantage in this repeated measure was the opportunity to study changes in the teachers’ guidance practice in a real-life situation. In the interaction with students and mentors from placement, teachers cannot ‘stage’ a conversation for the purpose of the study, especially since contacts with workplace mentors are highly valued. We provided teacher training, based on the principle that in order for mentors to be able to have a reflexive con-
conversation with their students and guide this process, they would first have to go through this process themselves (Kelchtermans 2007; see also Winters et al. 2009 for more information about career competency development as a reflective learning process).

**Research aim and questions**

This study provides a description of the organisation of vocational training conversations between the three parties in the three-way dialogue or triadialogue: student, teacher and mentor from placement. We are particularly interested in any differences between groups, more specifically:

1. Is there a difference in the organisation of vocational training conversations between the group from the 2007–2008 measure and the 2009–2010 measure, before training (as a result of educational reform)?
2. Is there a difference in the organisation of vocational training conversations between the teacher training group and a control group (as a result of teacher training)?
3. Is there a difference in the organisation of vocational training conversations between teachers that merely took part in the teacher training and teachers who have additionally been actively involved in designing the teacher training?

We hypothesized positive outcomes for each of these research questions, with each ‘intervention’ (educational reform in terms of changes in educational policy and practice during the transition to competency-based education in the first, teacher training in the second and being actively involved in the process in the third research question) contributing to a more career learning oriented guidance practice. Bpv-conversations are analysed from a career learning perspective for formal characteristics, content, form, and relational components (building on the framework from the baseline measure, reported in Winters et al., 2009).

**Research and development methodology**

**Training program design**

The teacher training intervention happens in the last year of a three-year process where teachers have worked closely with educational advisors to pinpoint interventions that would make their department meet the criteria of a powerful career learning environment (see supra). Because of the specific nature of the internal organisation of the school, it was decided that each of the school’s departments (Health Care, Economics and Technique) would work in an autonomous group of a maximum three teachers and one advisor from KPC Group, called ‘design group.’ The teachers were invited to participate because of their key role in the organisation, mostly as members of a special interest group already working on the topic of mentoring and student guidance. Each group had to deal with department-specific challenges: important changes in management, budget and time constraints, resistance in colleagues, etc. Apart from this very specific trajectory per design group, all the teachers had the opportunity to learn and discuss career learning in general reflection moments (five days over the course of two years; with expert presenta-
tions, workshops, discussions). At the end of two years, all departments decided on one specific teacher training module.

The teacher training consisted of a minimum of two four-hour sessions combining more theoretical information on career learning with interactive group coaching (e.g. training a more career learning directed approach to conversations in role play). Additionally, each teacher got an individual coaching session with a trained advisor from KPC Group in which they discussed a recording of the teacher’s pretraining vocational training conversation with a student in order to identity strengths and weaknesses and set learning goals.

The research presented here is an explorative multicase design, aimed at comparing the organisation of vocational training conversations after the training intervention with levels from a control group as well as levels from the baseline measure in 2007–2008. The goal is not to be representative, but to detect potential differences between conditions.

Sample
We analysed 30 bpv-conversations (cases, see Yin 1989) at two different moments of time. Of these 30 conversations, there were 10 with teachers from a control group (did not follow our teacher training) and 20 with teachers from a training group (all attended the teacher training, including four teachers who had been part of the design group before the start of the study). In the control group, there were three teachers from the departments of Technique, six from Economics and one from Health care. In the experimental group, there were four teachers from the department of Technique, six from Economics (including two in the design group) and 10 from Health care (including two in the design group). Table 1 provides an overview of student characteristics.

Among the 30 teachers were 15 men and 15 women; among the mentors from placement 16 men and 14 women. In three cases second conversations had no mentor from placement available. With the exception of these three, all conversations took place at the location where students did their placement, with a first contact as the first conversation and the second conversation at the end of the placement. Registrations were made throughout the second semester, because of specific organisational arrangements for placement in each class-group.

Procedure
We asked the teachers from the design groups (see supra) to invite 20 colleagues for each of three departments ( Technique, Economics and Health Care); 10 for the control group and 10 to take part in the teacher training as the experimental group.

Table 1. Overview of student (conversation) characteristics.

<table>
<thead>
<tr>
<th></th>
<th>Technique</th>
<th>Economics</th>
<th>Health care</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td>1 – 2 – 3</td>
<td>3 – 0 – 4</td>
<td>5 – 6 – 1</td>
<td>4 – 5 – 2</td>
</tr>
<tr>
<td><strong>Level</strong></td>
<td>1/2 – 3/4</td>
<td>3 – 4</td>
<td>6 – 6</td>
<td>2 – 9</td>
</tr>
<tr>
<td><strong>Boys – girls</strong></td>
<td>7 – 0</td>
<td>5 – 7</td>
<td>1 – 10</td>
<td>13 – 17</td>
</tr>
<tr>
<td><strong>Number</strong></td>
<td>7</td>
<td>12</td>
<td>11</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total conversation duration</strong></td>
<td>6h 47m 35s</td>
<td>12h 30m 20s</td>
<td>15h 35m 53s</td>
<td>34h 53m 48s</td>
</tr>
<tr>
<td><strong>Mean conversation duration</strong></td>
<td>29 m 07s</td>
<td>31 m 16s</td>
<td>42 m 32s</td>
<td>34 m 54s</td>
</tr>
</tbody>
</table>
Responses were mixed, from very enthusiastic to having concerns about the time investment required. With the organisational support of the school’s management we eventually got permission to record 35 bpv-conversations, instead of the 60 we had originally planned. Before our second measurement five teachers dropped out. In total, we registered 30 conversations in two different moments in time: seven from the department of Technique, 12 from Economics and 11 from Health Care. One of the researchers met with all the participant teachers (experimental and control group) in advance to explain the set up of the study (video recording of the conversation and subsequent interview, for research purposes only) and provide standardised information on career learning. The teachers in turn asked for the student’s and mentor’s permission to record their bpv-conversation. Before the start of each conversation, the explanation of the study was repeated and formalised by requesting informed consent. All the participants gave their consent. In the time between the first and second measurement, five teachers informed the researcher that they no longer wished to participate in the study. They cited both practical constraints (time) and organisational difficulties (mentor and/or student who withdrew consent, a student who did not complete the placement).

**Analyses**

For the analysis of the data (34 hours, 53 minutes and 48 seconds of recordings, filtered for any disturbance that was not related to the actual bpv-conversation) we used the framework that was developed for the baseline measure in 2007–2008 (see Winters et al., 2009) with a few minor adjustments. We evaluated:

- formal characteristics: who is talking, who is posing the questions?
- content: is the conversation about school, practice, the student’s personal life or the student’s career?
- form characteristics: is the aim to give information to the teacher/mentor/student, to stimulate action or reflection in the student or to motivate the student?
- relational characteristics: about the role of the student in the trialogue, from passive-receptive when teacher and mentor talk about him/her over the teachers and mentor talking to the student to the most involved role when teacher and mentor talk with the student.

The resulting framework thus consists of four broad themes, each divided in a number of mutually exclusive categories (see Appendix 1 for the codebook). Each conversation was then divided into meaningful sequences, until a change appeared in one (or more) of the broad themes. Each sequence was scored and codings were quantified within and about the conversations. All analyses were carried out by a single researcher, who had experience from the baseline measure.

**Results**

In the results of the analyses of bpv-conversations, we make a distinction between the baseline measurement from 2007–2008 (baseline M), the before training measurement from 2009–2010 (M1) and the follow-up measurement (M2) for the control group versus the experimental group. Following the classification of the
framework presented above (see also Appendix 1), we present the quantitative measures of description (percentages and means) followed by a sample anecdote.

**Formal characteristics**

The mean duration of the 2009–2010 bpv-conversations is about 35 minutes. The conversations are shortest for the department of Technique (mean = 29 minutes for both first and second conversations) as compared to the department of Economics (mean = 34 minutes for first conversations and 28 minutes for second conversations) and Health Care (mean = 41 minutes for first conversations and 44 minutes for second conversations). There are no differences between first and second conversation durations for the control and experimental group. We are interested in the proportion of time students, teachers and mentors are talking as well as structuring the conversations (by asking the questions that decide the conversation themes). Table 2 provides an overview.

A comparison of the 2007–2008 baseline results and the results of the before training conversations (over all groups) shows that in two years time – with educational reform on a national level and the project interventions on school level – little to nothing has changed in the interaction in bpv-conversations from the formal criterion of who’s talking. The talking scores show that in an average conversation, the time the student is talking is relatively limited (mean = 22% for the control group and 23% for the experimental group), the proportion for the mentor is slightly higher (mean = 28% for the control group and 26% for the experimental group) and the teacher is talking most of the time (mean = 50% for both the control group and the experimental group). The scores are remarkably different for conversations from the design group, where not teachers (mean = 35%) but students now talk the most (mean = 42%), while the proportion for mentors (mean = 22%) stays at about the same level.

The results for conversations of the control group are not different for the first and second conversations, but do differ for conversations where the teacher participated in the training. In the experimental group, students talk more in second conversations (mean = 32% vs 23% before training) at the expense of mentors’ proportion of time talking (mean = 19% vs 26% before training). The means for teachers have not changed for the experimental group (mean = 48%), but they do change in the design group (mean = 43% vs 35% in first conversations). This increase for teachers translates in a decrease of proportion of time talking for mentors (mean = 11% vs 22% in first conversations), not students (mean = 44%).

The asking scores, that reflect the proportion of time each of the parties is structuring the conversation, were interpreted in more detail than for the baseline measure in 2007–2008, allowing for nearly all conversation time to be assigned to either the student or the teacher or the mentor – as opposed to the baseline measure with only 73% of the total conversation time accounted for. While the numbers may differ, the proportions for the first conversations remain very much comparable to the levels in the baseline measure. Again, two years into this school’s educational reform, what is said in bpv-conversations still consists mostly of teachers asking (mean = 72% for the control group and 69% for the experimental group), while input of mentors from placement and students remains limited to 17 (control) / 22 (experimental) and 8% respectively. The exception here is the design group: though the teacher remains in his/her dominant role structur-
Table 2. Overview of the proportion of time each of the parties is talking and structuring the conversation.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
<td>Experiment</td>
<td>Design</td>
</tr>
<tr>
<td>Student, Talking</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>Teacher, Talking</td>
<td>53%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Mentor, Talking</td>
<td>24%</td>
<td>28%</td>
<td>26%</td>
</tr>
<tr>
<td>Student, Asking</td>
<td>5%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Teacher, Asking</td>
<td>57%</td>
<td>72%</td>
<td>69%</td>
</tr>
<tr>
<td>Mentor, Asking</td>
<td>11%</td>
<td>17%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Note: *Two conversations without a mentor from placement, so just between the teacher and the student; bThree conversations without a mentor from placement, so just between the teacher and the student.
ing the conversation (mean = 57%), students are involved considerably more (mean = 28%) at the expense of teachers but especially mentors from placement (mean = 5%).

In the follow-up conversations, there were no real changes in scores for the control group or the design group (totals for student, teacher and mentor differ, explaining the subtle differences in scores here). In the experimental group nothing changed for the teachers (mean = 70%), but students’ proportion of conversation time structuring increased (mean = 16% vs 8% before training) at the expense of the mentors (mean = 17% vs 22% before training).

Though the biggest changes occur in the experimental group, their scores for talking and asking are still not at the level of the design group. Even in the design group, the teacher holds his/her very prominent role talking and asking the questions. What is actually talked about (content level) will be discussed in the next section.

Content

Table 3 provides an overview of the proportion of time that each of five content categories is mentioned. In this study we were especially interested in the category ‘career’: would bpv-conversations with the same available time and the same goals to achieve be more career oriented after teacher training? The results show that this is indeed the case. The control group scores for both first and second conversations (mean = 12% and 13% respectively) don’t differ from the level of the baseline measure in 2007–2008, and neither does the score before training in the experimental group (mean = 13%). However, teachers from the design group spent a mean of 23% of bpv-conversation time on the student’s career, and after training teachers from the experimental group attain that same level (mean = 21%). The second conversations in the design group – where teachers had also participated in the training – even achieve a mean score for proportion of conversation time spent on the student’s career of 35% or about a third of the total conversation time.

Table 4 provides an overview of the breakdown of the ‘career’ category in career competencies, as was the case in the baseline measure report. In the baseline measure, it was mainly reflection on qualities and making career decisions that were discussed (5% and 6% of total conversation time respectively). Apart from qualita-
tive differences, which are discussed in Winters et al. (2011, in press), the quantitative results show that a shift had taken place. Even in the control group, the proportions of conversation time are more evenly spread over the competencies career reflection (mean = 4% for both qualities and motives) and career shaping (mean = 2% for work exploration and 3% for making career choices). In the experimental group the numbers are slightly higher, and also evenly spread (mean = 5% for reflection on qualities and motives and for making career choices and 4% for work exploration) and that effect becomes even more pronounced for the design group (mean = 7% for reflection on qualities and work exploration, 9% for reflection on motives and 10% for making career choices). For all three groups however, networking has a very limited place in second conversations.

With the exception of second conversations in the design group, in bpv-conversations the greatest amount of time is still spent on the student’s education and study trajectory (see Table 3). Since using the analysis framework for the baseline measure, minor adjustments have been made (see Appendix 1, underlined), among those the addition of ‘learning goal, procedure’ to the category ‘study.’ Closer analysis of the ‘other’-category showed that we could distinguish between ‘learning goal, procedure’ as well as ‘administration,’ ‘structuring the conversation’ and rest. Even after accounting for the addition of the category ‘learning goals, procedure,’ a comparison of before training scores with the results from the baseline measure (mean = 32%) showed a significant increase. The proportion of time spent on study is about the same for first conversations from the control group (mean = 53%) and the design group (mean = 51%), and lower for the experimental group (mean = 43%). Since at that point, none of the teachers had attended the training, attention has to be paid to selection bias. Consoling in this respect is that the difference in means goes to the categories ‘other’ and ‘profession,’ not to the student’s personal life or career. By the second conversations, only the time proportion scores in the design group had changed (from 51% to 29%, including 2% of time discussing task information); the scores for the control group and the experimental group remained at the same level (51% and 46% respectively, both including 5% of time discussing procedures and task information).

Within the study category – we only discuss the second conversations here, the before training conversations showed no differences between the control group and the experimental group and the design group has remained unchanged – most of the time used to go to the assessment of learning goals (53% of study-time for the base-

Table 4. Overview of the proportion of time in second conversations each of the following career competencies is mentioned (per group).

<table>
<thead>
<tr>
<th>Competency</th>
<th>Baseline (n=24)</th>
<th>Control (n=10)</th>
<th>Experiment (n=16)</th>
<th>Design (n=4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualities</td>
<td>5.46</td>
<td>3.60</td>
<td>5.21</td>
<td>7.23</td>
</tr>
<tr>
<td>SD</td>
<td>3.60</td>
<td>4.34</td>
<td>4.98</td>
<td>2.58</td>
</tr>
<tr>
<td>Motives</td>
<td>1.82</td>
<td>4.01</td>
<td>5.46</td>
<td>8.64</td>
</tr>
<tr>
<td>SD</td>
<td>3.74</td>
<td>4.50</td>
<td>4.67</td>
<td>4.17</td>
</tr>
<tr>
<td>Work exploration</td>
<td>0.98</td>
<td>2.27</td>
<td>4.04</td>
<td>7.06</td>
</tr>
<tr>
<td>SD</td>
<td>3.04</td>
<td>4.67</td>
<td>4.04</td>
<td>8.03</td>
</tr>
<tr>
<td>Making career choices</td>
<td>5.6</td>
<td>2.72</td>
<td>5.36</td>
<td>10.01</td>
</tr>
<tr>
<td>SD</td>
<td>3.07</td>
<td>5.72</td>
<td>8.03</td>
<td>4.59</td>
</tr>
<tr>
<td>Networking</td>
<td>0.14</td>
<td>0.11</td>
<td>0.85</td>
<td>2.24</td>
</tr>
<tr>
<td>SD</td>
<td>0.36</td>
<td>1.77</td>
<td>1.77</td>
<td>4.47</td>
</tr>
<tr>
<td>CAREER</td>
<td>14%</td>
<td>13%</td>
<td>21%</td>
<td>35%</td>
</tr>
<tr>
<td>SD</td>
<td>4.77</td>
<td>4.77</td>
<td>12.38</td>
<td>14.60</td>
</tr>
</tbody>
</table>
line measure, which equals 17% of total conversation time). This was mainly summative (mean = 13%) and only slightly formative (mean = 4%) evaluation. For the second conversations, results show that the levels in the control group are unchanged (mean = 20%, including procedure and mostly accounted for by summative evaluation with a mean of 12%). In the experimental group, the total proportion of time spent on discussing learning goals is comparable (mean = 17%), but summative evaluation here only accounts for 6%, the same as formative evaluation. The time spent for explaining procedures remains a steady 5% for both groups. As for the design group, the total time proportion spent discussing the student’s study is considerably lower (mean = 29%, see Table 3), but within that time the same trend is shown with equal proportions for summative and formative (mean = 3%) evaluation. The time spent for asking students about their school experience (mean = 4% in the control group, 9% in the experimental group and 8% in the design group) is more limited by comparison, while talking about the student’s training in practice (mean = 27% in the control group, 20% in the experimental group and 15% in the design group) has increased since the baseline measure in 2007–2008 (mean = 10%), especially in conversations where teachers didn’t attend the training.

What hasn’t changed since the baseline measure, is that the student’s personal life and hobbies – topics that can be very relevant for their career – are hardly ever the subject of bpv-conversations: in first conversations the respective means were 3% for the control group, 1% for the experimental group and 2% for the design group while in second conversations this was 4% for the control group, 1% for the experimental group and 5% for the design group.

As was the case with the role of the mentor from placement asking questions, Table 3 illustrates that bpv-conversations show a marginal but distinct decline in time spent discussing the placement profession (actual work). The mean scores range from 10% for the control group, 15% for the experimental group and 9% for the design group in first conversations to 6% for the control group, 9% for the experimental group and 7% for the design group in second conversations.

From the first to the second conversations, ‘other’ scores remain at a same substantial level (with 26% for the control group, 23% for the experimental group and 24% for the design group). The scores now represent administration (e.g. filling out forms and checklists; mean = 12% for the control group, 8% for the experimental group and 9% for the design group), and rest items (e.g. informal talking, summarizing and structuring the conversation, etc.; mean = 15% for all groups).

Form

As an indication of changes in the quality of bpv-conversations, we present the results for the category ‘form,’ and more specifically the portions of time spent on giving information (informative), appraising (affective) and stimulating reflection (reflective) and action (activating). Table 5 shows these proportions for the different groups.

The biggest difference since the baseline measures in 2007–2008 is seen in the affective component. Bpv-conversations are no longer conducted as an ‘all administrative reviewing of competence checklists,’ and so the focus has shifted away from appraising. The means for the different groups at the different measures show no distinct changes. For the first conversations (M1), the mean portion of time for the affective component is 5% for the control group and design group and 9% for the
experimental group. For the second conversations (M2) this is 10% for the control group, 8% for the experimental group and 9% for the design group. Little changes for the informative and activating components, with scores for all groups for both first and second conversations varying around the baseline measure level.

Where the analysis of the original bpv-conversations showed a relatively marginal position for the reflective component (mean = 8%), this is continued in the control group and the conversations of the experimental group before training (means are 7%, 5% and 8% respectively), but not so in conversations with teachers who attended the training. The mean proportion of conversation time stimulating student reflection was 15% for second conversations in the experimental group and a stable 23% to 25% for the design group on both measures. Connecting this to the formal characteristics of bpv-conversations after teacher training, it seems that teachers now have a different agenda when asking questions. This does not mean, however, that bpv-conversations no longer serve as a ‘check point’ for teachers to assess whether a student’s placement is going well, as illustrated by the scores for ‘info for teacher’ (see Table 5).

### Relational components

The most important change since the baseline measurement we find in the role of the student in the communication. In 2007–2008 we concluded that the student is not an equal partner in bpv-conversations and was more object than subject in the conversations. Even before the teacher training (M1), we see a shift towards more talking with the student (22% and 23% for the control group and experimental group as opposed to 9% in the baseline measurement), and the training seems to...
stimulate this even further: 33% of conversation time is spent talking with the student after teacher training vs 26% in the control group. Even with this change though, most conversation time is still spent talking against and about the student (see Table 6). The exception here is the design group, with 51% (before training) and 58% (after training) of conversation time spent talking with the student. As is the case for the experimental group after training (M2), the increase from the baseline measurement does not come from conversation time communicating against the student: teachers will have their say, but – besides that – they now get the student more actively involved at the expense of mentors from practice (see supra).

**Illustration: sample anecdote**

This anecdote comes from a conversation with a third year student of the department of Economics (level 3/4). Though there’s more to a career dialogue/trilogue than we can specify here, this anecdote is an illustration of career learning communication in bpv-conversations now.

(T = teacher; M = mentor in placement; S = student)

T: He [student] has been working here for a couple of weeks now.
M: Yes, indeed.
T: And if I’m not mistaken, you [mentor] have been informed about his responsibilities and duties [P and S nod ‘yes’]. So in this conversation, we’ll just take a moment to run through all of that, and I propose to leave that for a second part of the conversation. After that, there will be opportunity for more questions, specifications, or whatever you might want to tell or show me [P and S nod ‘yes’]. But first of all, I’d like to go back to the start, to your choice for this placement. We have worked this last year from what you [student] want to do. So I think it’s important to talk about that. Do you recall your main reason to apply for the placement here?

S: Well, I was looking at holiday parks, working in a hotel just didn’t feel right. So I looked at different organizations and I liked this one, as an organization.

T: What about it appeals to you?

S: Uhm, that it’s people on holiday. You work with people who are on holidays here, not business people, that’s a different atmosphere.

T: And that atmosphere is important to you?

S: Yes, making sure that guests have a good time.

M: It is a big difference, compared to a hotel.

T: So now that you’re actually doing it, how is that working out for you?

S: I like it here: good atmosphere, I’m having fun, I can learn a lot.

T: Like what? Did you set a goal for yourself, before you started this placement?

S: I did. I wanted to be more independent.

T: Independent how?

S: Well, I live in one of the park houses here, without my parents [student talks about his experience: doing this placement and living on his own in the holiday park’s facilities is new to him, he shares a house with other interns – teacher listens and asks a question now and then].

T: Do you feel that being here for most of the time contributes to that good atmosphere you referred to earlier?

S: Absolutely, yes [student talks about his experience: how it is sharing a house and household with other interns, and how this makes working together easy and self-evident]. That’s different from school, how it is to have to work together.
T: Oh really, why is that?
S: I feel I don’t have that much in common with my classmates.
T: Have you tried to take initiatives there?
S: Sure I did, but if no one responds, I stop caring.
T: So what I’m hearing, is that you’re here with a focus: ‘this is for my education.’
[S nods ‘yes’] And I can imagine, here in a new situation with new people, you
have an opportunity to start fresh and connect with a group of young people.
M: I recognize the part about him being quiet. That’s how he started here, like you
said a new place and new people, mostly female…poor you [everyone laughing].
But it didn’t take you long to get to where you are now: open and speaking your
mind.
T: Good to hear. If you like it here and the cooperation, both ways, runs smoothly,
than we are where we need to be. Because that is immensely important, whether
it’s in school or in a job or for later in a family when you’re up for that [S
smiles].

In line with the results of our analyses, we see a teacher providing the outline of
the conversation and then gradually allowing a more active role for the student.
The mentor from placement has a very limited part in the conversation. The conver-
sation is actually about the student’s career wishes, starting from very concrete
experiences. On a form level, the teacher combines giving information with stimu-
lating reflection, a combination which – through the interviews – we have come to
understand as guided reflection.

Conclusion
The intervention reported in this article is part of a broader research and develop-
ment project, aimed at realizing a powerful career learning environment in a Dutch
school for secondary vocational education and training. Career learning as a process
in which individuals learn to become aware of and realize (career) opportunities,
has a very prominent role in today’s fast changing knowledge society. Though
stakeholders agree that education should play an important role in becoming respon-
sible for this, it proves to be a challenge to actually realize a powerful career learn-
ing environment in a real life educational context. Research has shown the
conditions needed for these learning environments. This study provides a descrip-
tion of the organization of vocational training conversations after teacher training,
analysed from a career learning perspective for formal characteristics, content, form,
and relational components.

Since the baseline measurement in 2007–2008 and despite the efforts made in
terms of educational reform (including sharing our project’s research results), noth-
ing has changed in vocational training conversations when it comes to content and
formal characteristics. A bpv-conversation remains structured according to the aca-
demic agenda, with teachers checking whether students’ progress meets school’s
expectations. What has changed, is the way teachers do this. The highly administra-
tion-based appraisal of students’ competences in a conversation against and about
the student gradually makes way for communication where the student takes on a
more active role, based on his/her experience in placement. Though we see this
change expressed in quantitative terms in our measurement results, in reality –
based on our observations – the organisation of vocational training conversations
still very closely resembled the situation from the baseline measure in 2007–2008.
As a result of a specific teacher training, we noticed changes in each of the above mentioned categories. Bpv-conversations with the same duration and the same targets to meet, now allow more time for students to talk and for their expressed experiences to further structure the conversation. On a content level, the school’s demands still dominate the conversation, but there is equal opportunity now for formative as well as summative evaluation. Considerably more conversation time is spent on the student’s career and, more specifically, that time is now balanced over all career competencies with the exception of networking. As for relational components, training helps to further stimulate the communication with the student. For all these categories – formal characteristics, content and relational components – the increase in favour of the student comes at the expense of the mentor from placement: he/she gets less time for talking and asking questions, less time to discuss the profession and less time to talk to the teacher about the student. As a result of the teacher training, teachers seem to come to the bpv-conversation with a different agenda. This translates into increased scores for time spent on stimulating reflection (form).

Though we interpret the changes since the baseline measurement in 2007–2008 as steps taken in the direction of powerful career learning environments, a real paradigm shift has only been realized in the design group. This is where, on the level of formal characteristics, student are equal partners in the conversation (talking as much as the teacher, although teachers still structure the conversations more than students do). These conversations are spent with up to one third of conversation time discussing the student’s career (content), actually stimulate reflection (form) and qualify as talking with the student for half of conversation time. Though there were only 4 teachers in the design group, their bpv-conversations (before and after training) were exceptions compared to the training group. Besides being actively involved in designing the teacher training (with discussions etc., see supra), these teachers also had more time than their colleagues to incorporate career learning into their guidance practice. Above this investment, following the teacher training had an additional effect. But, the conversations still don’t show career learning in the triologue: teachers making more space and time for the student’s agenda seems to happen at the expense of the mentor from placement and his/her agenda.

Discussion
Since 2007–2008, our project ‘Career learning in competence-based education’ has tried to stimulate the realization of a powerful learning environment for career learning in a school for secondary vocational education in the Netherlands. The project came at a time the school (management) was already making changes to meet with national policy’s competency-based education agenda. The value of this study is knowing whether training teachers can actually stimulate career learning conversations, in this case exploring differences between conditions after a specific intervention in a real life educational context. This has important implications for the practice of professional development in teachers, as we will explain further.

The teacher training has an immediate effect, but – as is the case for the process we are studying (Simons, van der Linden, and Duffy 2000) – active involvement and the opportunity to make elements of the training one’s own, make for the real improvement in terms of guiding students in career learning. This is in line with literature about participants’ commitment and motivation in training: the more impor-
tant a task/strategy/goal is perceived (Latham and Locke 1991) and the more coherence is realized between the perceptions of all the stakeholders – managers, developers, supervisors, trainers and trainees – of what the problem is that has to be resolved and how this will be achieved (Kessels and Plomp 1999), the better the outcome. Obviously, this information has been known for years (see also Bailey et al. 2004; Caravaglia 1993), yet in education reform and interventions the top-down approach dominates. We interpret the results from this specific teacher training as a strong incentive to realize participant involvement in research and development designs, especially in education.

Though we have tried to pay the most care to the methodology for research in a real, ecologically valid quasi-experimental setting, our study has significant weaknesses. First the relatively low number of participants – even for a first explorative study – and second the possible selection bias as a result of teachers’ voluntary participation in the study. It should be noted however that our sample doesn’t attempt to be representative and results should only be interpreted as tentative conclusions in a particular context. Ideally, we would have included mentors from practice in the training as well, but we found no workplace mentors inclined to participate.4 We hope this exploration can inspire further research in which these weaknesses will be overcome. We invested in the ‘groundwork’ (as is the case in any exploratory study): organizing a collaboration between school, research and development and getting commitment from the stakeholders for something new, the design of an analysis framework and a training intervention. Now a larger scale research can be set up, using these models and procedures, to allow – in a more controlled setting – for the stimulation of changes and the subsequent formulation of conclusions that can be generalised.

In this study we were interested in changes in the organisation of vocational training conversations as a result of educational reform (baseline measure vs before training group), a result of teacher training (experimental group vs control group) and a result of being part of a reflective process (design group vs experimental group). We found that – in terms of stimulating and improving career learning – the design group did better than the experimental group and the experimental group did better than the control group. These differences support the assumptions that guiding career learning can be stimulated, that vocational training conversations can realize their potential for career learning, and that the efforts made in educational reform now only partially have the desired effect on interactive behaviour in actual guidance conversations. With the design group teachers as an example of good practice, we recommend that future interventions for professional development in education be modelled after the design group process: with active involvement, opportunities for reflection on experience, and time to incorporate behaviour changes in guidance practice. The question remains how long and intensive the training of teachers – and eventually the mentors of the workplace – should be, in order to make the paradigm shift that is fundamental for the issue of career learning.

Notes
1. The project was initiated in 2007–2008 as a partnership between research (experts from the Hague University and a PhD student from the Katholieke Universiteit Leuven), development (advisors from KPC Group, a national bureau for advice and expertise on innovations in education) and practice (ROC de Leijgraaf, a school for secondary voca-
tional education). The aim was not only to map, but also to stimulate the communication between students, teachers and mentors from placement.

2. Although there are differences both between and within schools, the common understanding is that during a placement there are at least two meetings between the teacher, the mentor from the placement and the student to discuss the placements and experiences in the professional world: one at the beginning of the placement and one at the end.

3. Means per conversation, then over conversations.

4. This relative difficulty in finding participants for the teacher training is not consistent with the positive evaluations the training received afterwards.

References


**Appendix**

**Codebook**

**Formal characteristics**

- *no*: number, each sequence gets a number (1, 2, 3…) for future reference
- *time*: time the sequence ends, expressed hours’minutes’seconds (example 1’03’45 = 1 hour 3 minutes and 45 seconds)
- *talking*: write down who (teacher, mentor in placement, student) is talking – with a capital for the dominant talker and a small letter for short remarks (e.g. yes, no, hmm…)
- *asking*: write down who is asking the question, who determines what is talked about in the sequence (with +/- to show whether or not this theme is picked up)

**Content**

- *other*: whatever doesn’t fit the other content categories
  - *rest*: whatever doesn’t fit the other content categories
  - *structuring*: all remarks en communication that serve to structure the conversation; like summarizing, introducing new subject, …
  - *administration*: about administration and paperwork, with no reference to the other content categories
study
- school: about students’ training in school, with a distinction between general things, personal experiences and problems
- vocational training: about students’ training in placement, with a distinction between general things, personal experiences and problems
- learning goal: about broad competences the student must learn in vocational training, with a distinction between task information (information about school tasks paired to student placement), process evaluation (formative) and product evaluation (summative)

student
- private: about the student’s personal life (family, health…), with a distinction between general things and problems
- hobby and extracurricular activities: about the student’s interests outside school

profession
- education: about generalities, problems and/or developments in education and the alignment of demands from vocational education and from the workplace
- practice: about generalities, problems and/or developments in practice
- professional attitude: about characteristics of the profession and expectations towards (future) employees

career
- qualities: about strengths of the student, the things he/she is good at
- motives: about values and dreams of the student for his/her career
- work exploration: about characteristics of the profession in relation to the student’s career ambition, personal values and dreams
- making career choices: about career activities/choices/plans for the future
- networking: about (gaining) contacts on the internal and external job market

Form

help oriented
- information: write down who is informed in the sequence, for whom the information is relevant
- appreciation: for sequences aimed at giving appreciation to the (competences of the) student

career oriented
- stimulate reflection: for sequences aimed at stimulating the student to reflect on his/her personal experiences in vocational training
- stimulate action: for sequences aimed at stimulating the student to take action, to do/try/experience something in vocational training

Relation: qualitative judgement on the position of the student in the trialogue

communication about student: the teacher and/or mentor in placement show no attention to the student’s point of view

communication against student: the teacher and/or mentor in placement take control (giving advice, formulating tasks, etc.) and fail to treat the student as an equal partner in conversation

communication with student: the teacher and/or mentor in placement address the student as an equal partner in conversation, showing attention for his/her point of view