"I don't have time to do any of the things I am responsible for" – University Teachers' Sense of Responsibility for Teaching

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University teachers work in a highly complex environment, meeting the multiple and sometimes competing demands of striving for high quality teaching and research. While a growing body of research focuses on the relevance of schoolteachers' sense of responsibility and its outcomes for teaching and student learning, teacher responsibility has been neglected in research with university teachers. This research, consisting of two consecutive qualitative and quantitative studies, sets out to explore university teachers' sense of responsibility for teaching at different stages of their career and in different academic contexts. Participants were 199 German and 80 Australian university teachers. Results of quantitative data analysis show that all university teachers most strongly feel responsible for their teaching and relationships with students. The focus of university teachers' sense of responsibility on teaching was also shown in the qualitative data. Differences between the samples of the two studies, however, appeared with regard to further objects of responsibility. Cluster analyses, including the frequencies of statements, revealed three types of university teachers in each study: teaching- and student-oriented university teachers in both studies, achievement-oriented teachers in the German/Swiss, and administrative-oriented university teachers in the Australian sample. Implications for university teachers' work contexts and training are discussed.

University teachers work in a highly complex environment, meeting the multiple and sometimes competing demands of striving for high quality teaching and research. A number of studies have shown that most academic staff try balancing a number of different tasks related to teaching, research, and administrative matters (Teichler, Arimoto, & Cummings, 2013). This heterogeneity of work was also shown in a study on university teachers' motivation in which German university teachers named a multitude of goals for their career at the university. These goals related to pursuing research excellence, career progression, providing high quality teaching, gaining prestige or personal growth, or attaining qualifications (Wosnitza, Helker & Lohbeck, 2014). While a growing body of research focuses on the relevance of schoolteachers' sense of responsibility and its outcomes for teaching and student learning, teacher responsibility has been neglected in research with university teachers. As a consequence of research showing that a person's sense of responsibility is related to their motivation and also, indirectly, work satisfaction (e.g., Humphrey, Nahrgang, & Morgenson, 2007), this research, consisting of two consecutive qualitative and quantitative studies, sets out to explore university teachers' sense of responsibility for teaching at different stages of their career and in different academic contexts.

University Teaching

The two central work components in most university teachers' work are teaching and research. How these two should be balanced, however, is an issue of ongoing tension, especially in contexts where research is more highly rewarded than teaching.

Rowland, for example, found several academics argued there were "dangers in spending too much time on teaching" (Rowland, 1996, p. 10) as this reduced the amount of time available for research. A number of studies have shown that university teachers perceive teaching and research as competing aspects of their work (Bexley, James, & Arkoudis, 2011; Cretchley, Edwards, O'Shea, Sheard, Hurst and Brookes, 2013). University teaching has been perceived as neither being connected to research (Hattie & Marsh, 1996) nor being promoted as strongly or rewarded as highly (Neumann, 1996). Thus, teaching may be perceived as less important for a successful academic career (Bloch, Lathan, & Würmann, 2013), and teaching quality has not been viewed as critical in staffing decisions (Höhle & Teichler, 2013). Similarly, teaching was not one of the central career goals mentioned by early career university teachers (Wosnitza et al., 2014).

Even so, teaching has been shown to constitute one major component of university teachers' high or low job satisfaction in some countries (Shin & Jung, 2014), and researchers have found aspects of teaching, such as stimulating student interest, teaching new values, and encouraging junior researchers, as main motivators in their work (Doff, 2006). University teachers identifying themselves as teachers, have been found to experience more positive emotions, the most prominent being joy and enthusiasm towards teaching (Postareff & Lindblom-Ylänne, 2011). Hagenauer and Volet (2014) replicated these findings and concluded that "teachers enjoyed teaching best in classes where teacher–students' relationships were perceived as productive professionally (e.g., students engage in classroom learning, students ask questions, students do not

interrupt) and personally (e.g., building bonds or rapport with students)" (p. 255).

The degree to which university teachers experience pleasure in teaching may differ with career experiences and environmental supports. For example, Hagenauer and Volet (2014) specifically found university teachers at the beginning of their career to experience specific emotions (such as worry/concern and anxiety) in relation to their uncertainty in the new environment. That university teachers perceive teaching as challenging in the beginning may also be related to the fact that university teachers may not actively choose teaching as a career but rather find it a part of their job requirements. Furthermore, it is more often the case that training in teaching pedagogy for adults is not a formal requirement for university teachers (Ates & Brechelmacher, 2013; Bouwma-Gearhart, 2012; Krücken & Wild, 2012).

The University Teachers' Role

The OECD states that the role of higher education teachers is changing due to new aims in university teaching: "In addition to being, first and foremost, a subject expert acquainted with ways to transmit knowledge, higher education teachers are now required to have effective pedagogical skills for delivering student learning outcomes" (OECD, 2012). Prior research on how university teachers should be prepared for teaching has provided multiple insights. In a synthesis of the impact of training for new university teachers, Stes, Min-Leliveld, Gijbels and Van Petegem (2010) identified different approaches to instructional development, focusing for example either on teachers' attitudes, conceptions, knowledge, skills and behavior; or students' perceptions, study approaches, and learning outcomes; or on academic institutions. So while not only teaching and research should best complement each other (cf. Geschwind & Broström, 2014; Visser-Wijnveen, Van Driel, Van der Rijst, Verloop, & Visser, 2010), university teachers' underlying conceptions of how staff and student roles should interact in assisting student learning (Akerlind & Jenkins, 1998) strongly influence university teaching and are therefore addressed in instructional development training. Fox (1983) assumed that in the process of learning to teach, teachers first see teaching as a transfer process, then one of shaping the students, then as a process of travelling and exploring the subject with the students and finally as growing in which teachers pay more attention on the intellectual and emotional development of the learner. In sum, it can be said that how and what university teachers teach is influenced by their idealistic views about what university teaching should do (see Kember, 1997, for a review) and how research and teaching are related (e.g., Prosser, Martin, Trigwell, Ramsden, & Middleton, 2008), which is why any

training should aim at fostering the coherence between ideals and action (Johannes & Seidel, 2012). This, of course, is true for all kinds of teachers, not only those at university. For university teachers, this question becomes specifically relevant given the aforementioned multitude of tasks and responsibilities they try to balance as part of their work.

Responsibility for University Teaching

Within this complex working situation, university teachers' sense of responsibility, i.e., their "internal sense to produce or prevent designated outcomes or that these outcomes could have been produced or prevented" (Lauermann & Karabenick, 2011, p. 135), with regard to their teaching becomes highly relevant. Research has repeatedly shown that just because a person is held responsible by some external instances such as courts, their employer, or other people to produce specific outcomes, they do not necessarily feel personally responsible to do so. Thus, although the value of teaching may be emphasized for more and more university stakeholders, university teachers may not necessarily feel responsible for offering appealing courses and thorough counselling to their students, but just want "get it over with" (Wosnitza et al., 2014). When individuals experience personal responsibility, they have been shown to be more committed to their actions, to feel self-efficacious, motivated, and to be open to new experiences (Bierhoff et al., 2005; Locke & Latham, 2006). With respect to work, Hackman and Oldham (1975) already found that positive personal and work outcomes (i.e., high internal motivation, high work satisfaction, high quality performance, and low absenteeism and turnover) are obtained when three critical psychological states are present: experienced meaningfulness of the work, experienced responsibility for the outcomes of the work, and knowledge of the results of the work activities. Core job dimensions, such as skill variety, task identity, task significance, autonomy, and feedback, would influence whether these three states are obtained. The responsibility that workers of 62 different jobs experienced was found to be moderately predicted by all five job dimensions (Hackman & Oldham, 1976). These findings were further supported by a meta-analysis showing that experiencing a sense of responsibility mediates the positive effects of job autonomy on job satisfaction and internal work motivation (Humphrey et al., 2007).

Regarding the subject of university teachers' responsibility, i.e., what university teachers feel responsible for, overall aspects may not differ much from those identified in research with schoolteachers. For example, research with schoolteachers has mostly focused on how teachers perceive their responsibility for their students' educational outcomes (Bracci, 2009;

Gusky, 1981, 1982; Halvorsen, Lee, & Andrade, 2009; Matteucci & Gosling, 2004; Potvin & Papillon, 1992). Findings of these studies showed that teachers generally tend to assume more responsibility for their students' success than failure, with more responsible teachers spending more time on preparation and advanced training units and having a stronger sense of being supported and encouraged by their school. Only few studies have focused on what teachers are generally responsible for (e.g., Bourke, 1990), such as preparation of learning materials, and most existing research has paid attention to teachers' sense of personal responsibility. Therefore, in a qualitative study, Lauermann (2014) collected a number of objects for which teachers feel responsible that may ultimately affect student learning, such as students' learning progress, safety and well-being, and classroom atmosphere.

Lauermann and Karabenick (2013) statistically identified four domains of school teachers' responsibility, namely teachers' responsibility for teaching, their relationships with their students, their students' motivation, and students' achievement. The responsibility for teaching in this context refers to teachers doing their best to make lessons highly effective and engaging. Teachers' responsibility for having positive relationships with students means that students can trust their teachers, rely on them when they need help, and feel cared about. The final two domains of teacher responsibility were that for student motivation (students' interest and value of the subject) and student achievement (learning, performance, and academic progress) (Lauermann & Karabenick, 2013). Although Lauermann and Karabenick (2013) showed teacher efficacy to be empirically and conceptually distinct from teacher responsibility, they argue that efficacy may enhance responsibility, as a person's sense of having the ability to have an impact on a given situation and its outcomes may lead to setting respective goals and feeling responsible for pursuing them (e.g., Locke & Latham, 2006).

This Research

In this research, we started with the assumption that the four domains of schoolteacher responsibility identified by Lauermann would also become apparent in university teachers' responsibility. While universities differ from schools with regard to many organizational aspects and teachers' prerequisites for teaching are highly diverse, we, however, assumed these objects of responsibility to have a slightly different direction in meaning. We thus revised the four-domains structure according to suggestions by prior research on university teachers' goals (Daumiller, Figas, & Dresel, 2015; Wosnitza et al., 2015) and identified nine sub-dimensions.

With regards to their teaching, we assumed teachers' responsibilities to possibly be differentiated into those concerning instruction, i.e., preparation and teaching seminars, and this concerning the content taught, i.e., selection and preparation of contents, being up to date. Concerning the university teacher's relations with his/her students, we assumed these to subdivide into the responsibility for having a positive relationship with each individual student and forming this bond with the group of students one is teaching. We, however, acknowledge that there might be borderline situations between university teachers' responsibility for teaching and their relationships with students when, for example, mentoring/supervising students and their work and theses, which is why we included a specific area there.

The domain of teachers' responsibility for student motivation can be assumed to be composed on the one hand of teachers being responsible for externally motivating students and on the other hand of teachers evoking students' intrinsic motivation. With regard to student achievement, we hypothesized teachers' responsibility to fall into the categories of responsibility for student performance as opposed to the responsibility for students' mastery of the subject matter (e.g., Ames, 1992).

Furthermore, prior research (e.g., Wosnitza et al., 2014) suggested a domain of university teacher responsibility that has not become apparent in research with school teachers, namely responsibility for matters connected to the macrocontext of teaching, like organization of study courses, preparation and administrative supervision of others (like the professor's courses and lectures), and other teaching-related but general matters. Figure 1 provides an overview of these nine anticipated dimensions of university teachers' sense of responsibility.

Based on these considerations, the primary goal of the present study, therefore, consisted of quantitatively and qualitatively examining university teachers' sense of responsibility for their teaching. University teachers' organizational context and work contents are different from that of school teachers. Also, while most university teachers may not have actively chosen teaching as a career, what they feel responsible for with regard to their teaching is closely related to their work motivation in that area.

This paper presents two studies from two different cultural and university backgrounds to initiate exploring university teachers' sense of responsibility. These two university backgrounds do most significantly differ with respect to how much university teachers are able to plan their careers. In Germany and Switzerland, university graduates starting an academic career enter a full or half time position as junior researchers in an externally funded research project or a temporary position working as a lecturer. Of this group, only 19% have tenure. In Australia, most academics begin their

Figure 1
Dimensions of University Teachers'Sense of Responsibility
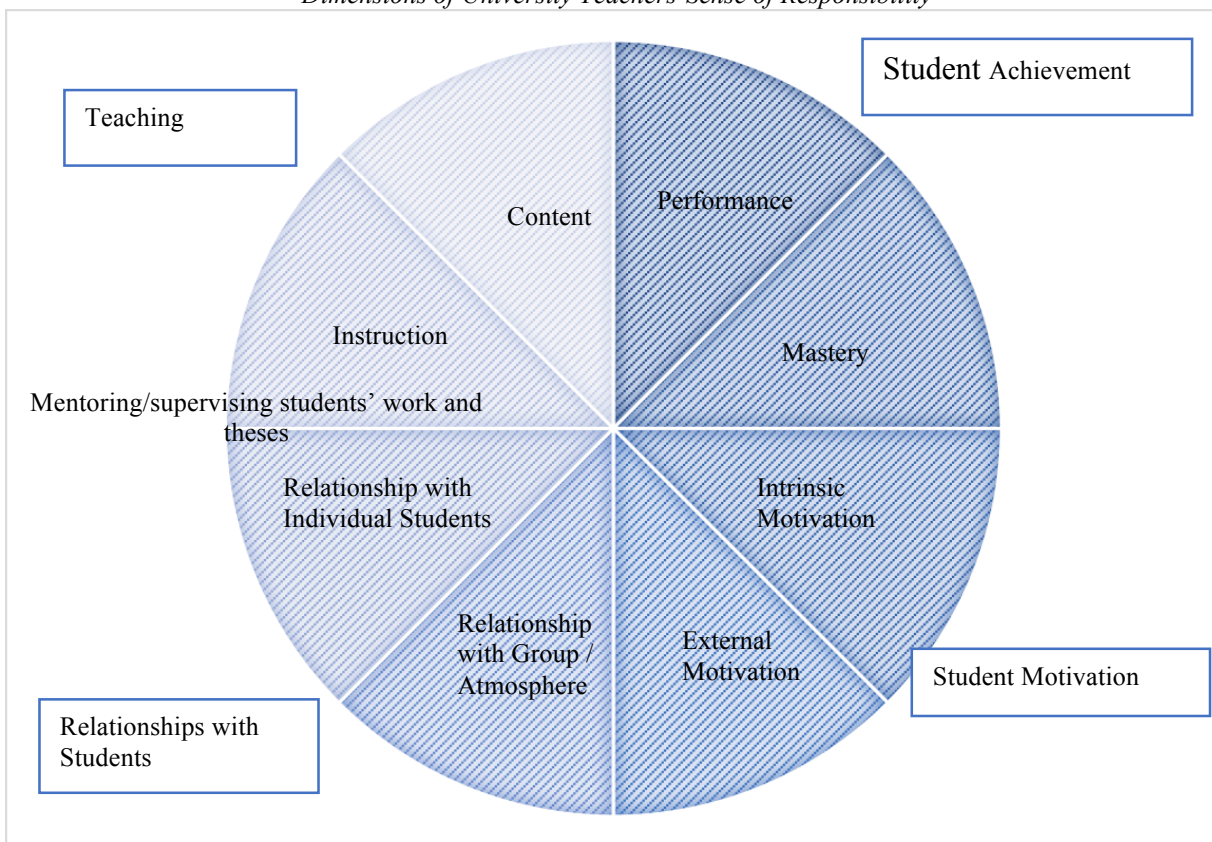
careers in a predominantly teaching role unless successfully obtaining significant research funding. At this stage about 51% of Australian academics have tenure (Jacob & Teichler, 2011). Just like in other countries, within both contexts studied in this research project, there are different professional pathways—tenure and non-tenure—that include university teaching to different extents. This fact was the subject of constant consideration during the research project and also guides and partially limits the extent to which data from both studies may be compared. Furthermore, these two settings also vary with regard to the students' relation to their university and consequently their university teachers as representatives. While, for example, students in Australia pay study fees and therefore have a client-like role at university, higher education in Germany is free. University teachers might feel responsible for different things as a consequence of these different settings. Thus, despite both studies implying differing samples, this research project aimed at answering the following overall questions:

1) What do university teachers feel responsible for?
2) To what extent do university teachers feel they can fulfillthese responsibilities, and what role does (work) time (distribution) play?
3) Are there different types of university teachers in the light of their assumed responsibility?

Methodology

Measures

Participants completed online questionnaires that included the following measures:

Teacher responsibility. Measures for Teacher Responsibility included (1) Lauermann and Karabenick's (2013) Teacher Responsibility Scales (0= "not at all responsible" to 100= "fully responsible"), measuring teachers' sense of responsibility for teaching (α=.81), student motivation α=.78), student achievement α=.84), and teachers' relationships with students α=.71).

In addition to these quantitative measures, university teachers were asked to state in open-ended format what they felt responsible for regarding their teaching and why.

Participants were also asked to (3) rate whether they were able to fulfill this responsibility and (4; if applicable) to explain why they felt they could not always fulfill their responsibilities. Objects of university teachers' responsibility were coded along the lines of the above suggested coding system (Fig. 1; Teaching – Instruction/Content; Relationships with students – Individual/Group; Student Motivation – Intrinsic/Extrinsic; Student Achievement – Mastery Learning/Performance; Administration). A second coder coded 20% of the data (inter-rater agreement, Cohen's κ = .82).

Teacher efficacy. This instrument consists of one scale with 23 items. The items were adaptations of the teaching efficacy scales by Dellinger, Bobbett, Olivier, and Ellett (2008) extended by self-developed items. The four-point Likert-scale ranged from 1=weak conviction to 4=strong conviction (e.g., "I'm convinced of my skills to motivate my students to do their best"). The internal consistency reliability of the scale assessed by Cronbach's alpha was very good: α=.94.

Work time distribution. Participants were asked to state in percent how their work time was usually distributed among the aspects of research, their own research/qualification, teaching and administrative duties. Furthermore, participants were asked to state what distribution they would wish for.

Procedure

Study 1. Participants were 199 German university teachers in the first five years of their careers (51.5% female; age range from 24 to 40 years) and 66 Swiss university teachers (52.3% female; 24 to 48 years old). Participants were from different German and Swiss universities, and involved in teaching of 8 different subject areas, with the most dominant being Mathematics and Science (Germany: 29.5%; Switzerland 45.5%) and Humanities (Germany 26.5%; Switzerland 27.3%). German university teachers had had been working on average for M=4.66 (SD=2.40) and teaching for M=4.36 (SD=2.42) semesters, and Swiss ECUTs had been working for M=5.00 (SD=2.29) and teaching for M= 4.66 (SD=2.95) semesters. Regarding their contractually assigned teaching load, 68.2% of Swiss university teachers had two teaching contact hours per week. In the German subset, 38.5% of participants had a teaching load of two, and 20.5% had a load of four teaching contact hours per week.

Study 2. Participants in Study 2 were 80 Australian university teachers (73.4% female; age range from 24 to 80 years). Like the university teachers in Study 1, participants were from multiple universities and subject areas (most prominent were languages and cultural studies (30.5% of participants)). On average, participants had been working at the university for M=4.89 (SD=5.73) years and were teaching an average of 12 (SD=8) hours per week.

Due to both studies being conducted in different cultures and university systems, analyses of the results did not include in-depth comparisons across the two samples. In each country, there are multiple university career pathways that are difficult to compare (cf. Teichler et al., 2013). These pathways may have tenure or not and may also include more or fewer teaching duties. In these studies, which were a first attempt at learning more about university teacher responsibility, these specificities of the contextual factors were not explored in enough detail that would allow for comparisons. Accordingly, the results will also be presented separately.

Results

RQ1: What do university teachers state to feel responsible for?

Study 1. Regarding German and Swiss university teachers' rating of their responsibility for teaching, student motivation, achievement and relationships with students, results showed that university teachers felt more responsible for their relationships with students and their teaching than for student motivation and achievement. Participants most strongly expressed feeling responsible for their teaching (M=73.02 SD=20.38), closely followed by their sense of responsibility for their relationships with their students (M=71.26 SD=21.11). Participants expressed a considerably lower sense of responsibility for their students' motivation (M=38.24 SD=20.98) and achievement (M=45.52 SD=19.98).

To further explore the aspects, statements regarding what participants felt responsible for with regard to their university teaching, their qualitative statements of objects of their responsibility were analyzed for content. Overall, university teachers mentioned 796 objects of responsibility. The proposed 5 main categories and 8 sub-categories of university teacher responsibility could be identified in the data. These university teachers felt responsible for their teaching, their relationships with students, students' achievement, and motivation, as well as administrative issues regarding teaching. How often objects of responsibility in each of these categories are mentioned, however, varies. Table 1 presents an overview of these categories, numbers of assigned quotes, and sample quotes.

The most dominant responsibility of German and Swiss university teachers identified in the statements of study 1 was teaching itself (59.42% of statements), with the responsibility for instruction being mentioned more often than the one for the contents taught. Relationships with students was the next often (18.72%) mentioned aspect of university teachers' responsibility, with most statements concerning relations with individual

Table 1
Objects of German and Swiss University Teacher Responsibility

Category	Frequencies	Sample Quotes
Total number of statements	796	
Teaching	**473 (59.42%)**	
Instruction	355 (44.60%)	"preparing teaching material" (#5); "Get to the planned contents in scheduled time." (#575); "delivering the content" (#303) "teach interesting lessons" (#601) "
Content	118 (14.82%)	"transfer up-to-date state of knowledge" (#85); "my own knowledge of the material" (#356); "only teach correct contents" (#469)
Relationships with Students	**149 (18.72%)**	
Individual	125 (15.70%)	"being a mentor for students" (#511); "supervising students' work (solve problems – because I am the assistant)" (#496); "subject-related counseling of students" (#488)
Group	24 (3.02%)	"fairness" (#81); "good group atmosphere" (#367); "reach as many students as possible" (#413)
Student Motivation	**39 (4.90%)**	
Intrinsic	30 (3.77%)	"raise students' interest" (#288); "get young academics excited about scientific topics" (#414)
External	9 (1.13%)	"get as many students as possible to work" (#413); "activate students" (#453)
Student Achievement	**60 (7.54%)**	
Mastery	51 (6.41%)	"students' knowledge" (#296); "that the students learn something" (#330); "students' start to think on their own" (#434); "students' autonomous learning" (#608); "Successful learning of the students" (#151);
Performance	9 (1.13%)	"exam results" (#540); "for students to hand in good theses so that I can give them good grades" (#330); "success at the exams" (#131)
Admin	**75 (9.42%)**	"administrative effort, e.g. planning exams, organizing room plans, etc." (#379); "support for lecture – setting up laptop for professor" (#529)

students, helping and counselling the individual, rather than the group.

Administrative responsibilities were mentioned in 9.42% of the statements, and these concerned those responsibilities that do not directly relate to the university teachers' own teaching but organization of the course of study, colleagues' lectures, and seminars, etc. As with respect to the Teacher Responsibility Scales above, university teachers' sense of responsibility for student motivation and achievement was lower. While 7.54% of statements focused on objects of responsibility related to student achievement (mastery: 6.41%, performance: 1.14%), university teachers felt least responsible for their students' motivation. Overall, 4.90% of statements focused on student motivation, with 3.77% of statements stressing

university teachers' responsibility for evoking students' intrinsic motivation while 1.13% of statements focused on externally motivating students.

With respect to the different subject areas, analyses showed that while university teachers in Languages mentioned significantly more responsibilities for relationships with students (23.58%) than teachers in mathematics (15.38%, $X^2=4.60$ p<.0.05), university teachers in the latter group mentioned significantly more administrative responsibilities (13.25%, $X^2=4.60$ p<.0.001).

Study 2. Regarding the quantitative measures of Australian university teachers' sense of responsibility, analyses showed that participants in Study 2 expressed a strong sense of responsibility for teaching (M=80.83 SD=15.91), followed by relationships with students (M=76.50 SD=18.00). University teachers' responsibility

Table 2
Objects of Australian University Teacher Responsibility

Category	Overall Frequencies	Sample Quotes
Total number of statements	266	
Teaching	**157 (59.02%)**	
Instruction	108 (40.60%)	"Preparation of lectures, tutorials and answering student questions." (#200); "Quality teaching" (#263)
Content	49 (18.42%)	"not to share speculations as confirmed knowledge" (#144); "content knowledge – to be a good teacher, you need to know your content" (#221), "provide current, accurate information to students" (#231)
Relationships with Students	**35 (13.16%)**	
Individual	24 (9.02%)	"timely response to student queries" (#214); "students are able to ask me for help with course material" (#15);
Group	11 (4.14%)	"provide a safe, supportive learning environment" (#231); "Students should have a positive classroom experience" (#251); "leadership" (#177)
Student Motivation	**20 (7.52%)**	
Intrinsic	7 (2.63%)	"enthusiasm of undergraduate students" (#265): "student motivation" (#265); "create interest in the topic" (#134)
External	13 (4.89%)	"keep postgrads going" (#27); "engaging students" (#229);
Student Achievement	**23 (8.65%)**	
Mastery	22 (8.27%)	"establishing foundation knowledge" (#219); "improve the content knowledge of my students" (#170); "getting them to think and not rely on memory" (#123)
Performance	1 (0.38%)	"student success – if they fail, in some cases I feel I have let them down" (#198);
Admin	**31 (11.65%)**	"development of innovative programs" (#270), "coordinating units" (#195)

for student motivation and achievement both were rated considerably lower (motivation: M=60.90, SD=18.25; achievement: M=49.39, SD=20.42).

In the open-ended questions on their sense of responsibility, university teachers mentioned 266 objects of responsibility. The proposed 5 main categories and 8 sub-categories of university teacher responsibility could be identified in the data. University teachers feel responsible for their teaching, their relationships with students, students' achievement, and motivation, as well as for administrative issues regarding teaching. How often objects of responsibility in each of these categories are mentioned, however, varies. Table 2 presents an overview of these categories, numbers of assigned quotes, and sample quotes.

With 59.02% of the statements being assigned to this category, teaching was the most mentioned object of responsibility, with more instruction- than content-related objects being mentioned. Regarding their sense of responsibility for relationships with students (13.16% of statements), participants more often mentioned relationships with individual students (e.g., counselling etc.) than with the group (e.g., working atmosphere). University teachers' sense of responsibility for student motivation, despite being generally low (8.65% of statements) focused more on externally motivating students than on intrinsic motivation.

With respect to the different subject areas, analyses showed that university teachers in Languages mentioned significantly more responsibilities for relationships with students (24.39%) than teachers in mathematics (13.79%, X^2=8.12 p<.0.01) while mathematics university teachers mentioned significantly more objects of responsibility for teaching (68.63%, X^2=8.24 p<.0.01).

RQ2: To what extent do university teachers feel they can fulfillthese responsibilities?

Study 1. For each of the responsibilities mentioned, participants were asked to state the extent to which they felt they were able to fulfill this responsibility.

Overall German and Swiss university teachers felt well able to fulfill their perceived responsibilities (M=3.66, SD=0.85). As anticipated, analyses revealed correlations between university teachers' sense they were able to fulfill certain responsibilities. In general, fulfillment of responsibility for teaching correlated with responsibility for administrative matters (r=.39 n=49, p<.01). Furthermore, the sense of being able to fulfill their responsibility for relationships with students correlated with achievement (r=.70, n=14, p<.01) and administrative responsibilities (r=.40, n=31, p<.05).

Regarding teacher efficacy, German and Swiss university teachers in this study generally did appraise themselves rather positively (M=2.94 SD=.46), and their sense of teaching efficacy correlated with their sense of being able to fulfill teaching responsibilities (r=.24 n=224 p<.001) and relationships with students (r=.24 n=118 p<.01).

Furthermore, significant differences appeared between university teachers in different subject areas, with Mathematics teachers having a significantly lower sense of teaching efficacy (M=2.87 SD=.42) than teachers in Language and Cultural Studies (M=3.01 SD=.42, t(148)=2.06 p<.05) and Jurisprudence, Economy, and Social Sciences (M=3.03 SD=.44, t(121)=-2.0 p<.05).

Participants in this study had been asked about their actual and desired work time distribution among the aspects of research, their own research/qualification, teaching and administrative duties in order to find whether spending too much time on less desirable tasks might be a reason for university teachers to feel they were not able to fulfill their teaching responsibility. Accordingly, in a first step the difference for each university teachers' actual and desired work time assigned to each of the four areas was calculated. Results showed that the majority (77.7%) of university teachers wished to spend more time on their own research and qualification, with 15.5% stating that actual and desired time spend on their own research was the same. With regard to which aspects university teachers expressed the wish to spend less time on than they currently do, 50.6% of participants stated that they wanted to spend less time on teaching, and 70.6% mentioned their administrative responsibilities.

Regarding the question of whether the orientations the participants expressed regarding their work distribution also affected the fulfillment of their responsibilities, analyses revealed a negative correlation between the difference in actual and desired work distribution regarding their own research/qualification and the fulfillment of the responsibility for teaching (r=-.53, n=264, p<.001), as well as administrative duties (r=-.39 n=264 p<.001). Furthermore, whether university teachers felt they were able to fulfill their responsibility for teaching correlated with work load. Teachers felt more able to fulfill their responsibility if their actual administrative workload was lower (r=-.24 n=265 p<.001) and they had more time to spend on their own research (r=.12 n=264 p<.05).

Figure 2

Actual and desired work distribution of German and Swiss university teachers

Figure 3
Actual and desired work distribution of Australian university teachers
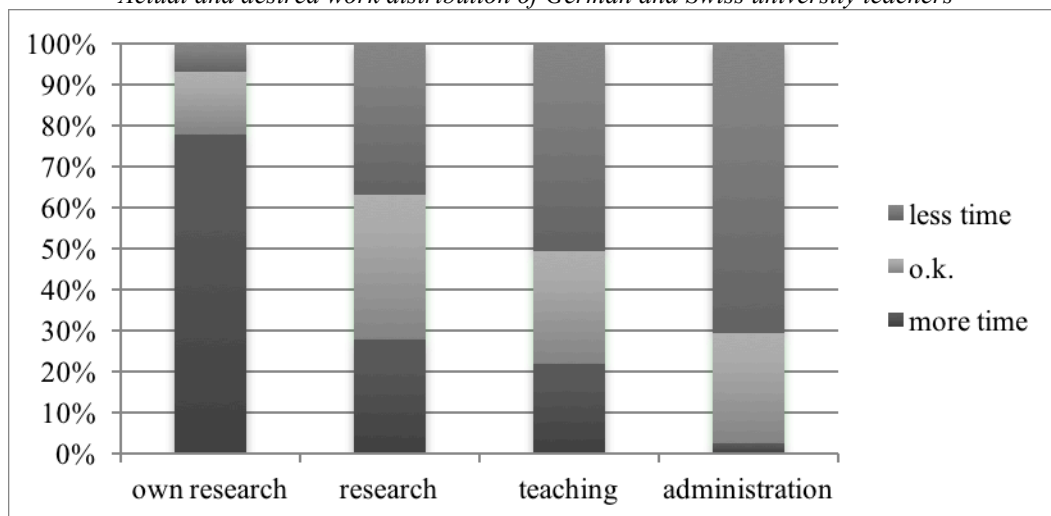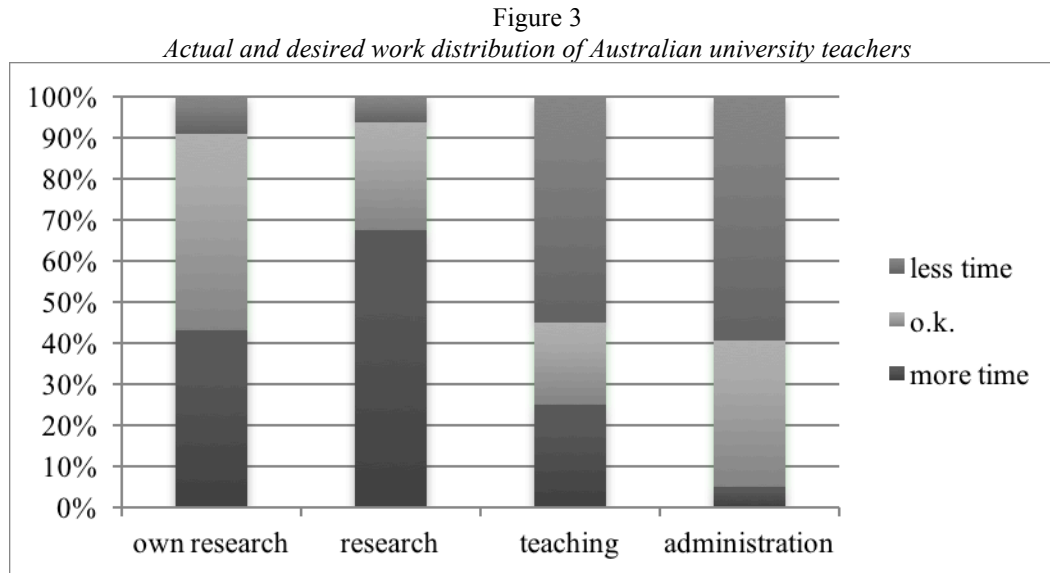
In the dynamic online questionnaire, university teachers who stated they were not always able to fulfill their responsibilities were asked why this was the case. Qualitative data was content-analyzed and showed a number of aspects that effect university teachers' fulfillment of responsibility. The majority of statements focused on the lack of time for teaching and the fact that other work duties (especially their qualification) kept participants from spending as much time on the preparation of classes and mentoring students as much as they wanted to: "Sometimes other appointments/deadlines and tasks are more important or urgent." (#575). Also, participants often mentioned lack of knowledge as a hindrance in fulfilling their responsibility. This either referred to content knowledge, teaching strategies or knowledge about the organizational aspects of teaching: "Every schoolteacher is better trained than a university teacher, while the contents we teach at [the] university are more difficult" (#470). External restrictions were also mentioned as keeping university teachers from fulfilling their responsibility. These were aspects such as the slow changes in the curriculum, but also having to teach courses for professors who are not open to suggestions of new content or methods (#327). Lack of resources, overall lack of value placed on teaching in the institute, and student aspects such as group size and lack of student motivation and knowledge were further factors that German and Swiss university teachers mentioned as limiting the extent to which they could fulfill their responsibility.

Study 2. Regarding the question of the extent to which Australian university teachers felt able to fulfill their responsibilities, analyses showed they generally felt well able to fulfill their responsibilities (M=3.90 SD=0.69). Regarding different aspects of their work, analyses showed that fulfillment of the responsibility for

teaching correlates with that for relationships with students (r=.54, n=22, p<.01), and fulfillment of responsibility for students' motivation and achievement are correlated (r=.86, n=6, p<.05). The extent to which university teachers felt able to fulfill their responsibility for teaching correlated with their sense of responsibility on the teacher responsibility scales (r=.25, n=65, p<.05).

Regarding teacher efficacy, university teachers in this study also appraised themselves rather positively (M=3.32, SD=.47), and their sense of teaching efficacy correlated with their sense of being able to fulfill their responsibilities for relationships with students (r=.29, n=78, p<.05) and student motivation (r=.22, n=78, p<.05). Furthermore, teachers' sense of teaching efficacy correlated with their sense of being able to fulfilltheir administrative duties (r=.40, n=26, p<.05).

Looking at the work distribution of university teachers in study 2, the difference for each university teachers' actual and desired work time assigned to each of the four areas was calculated. Figure 4 provides an overview. Results show that, like German and Swiss university teachers, the majority of Australian university teachers (67.5%) wanted to spend more time on research (the number of university teachers wanting to spend more time on own research was, however, lower (43.0%)). Of the participants, 25.0% wanted to spend more time on teaching than they actually did, while 20.0% were happy with the amount of time spent on teaching. Regarding the administrative load, 35.4% of participants stated that they were happy with the time spent on these duties.

Correlation analyses revealed a positive relation between the actual and desired work distribution and university teachers' sense they could fulfill their responsibility for teaching (r=.43, n=66, p<.001) and administration   (r=.48,   n=28,   p<.05).

Figure 4
Clusters of German and Swiss university teachers with respect to their sense of responsibility
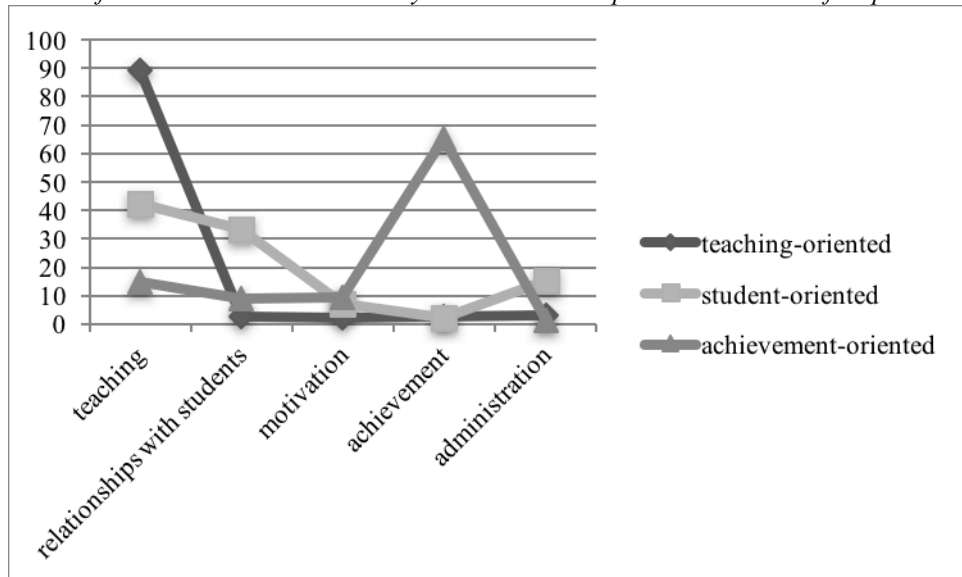
Also, Australian university teachers who stated they were not always able to fulfill their responsibilities were asked why this was the case. Reasons given included time pressure, other demands, and administrative aspects: "Time pressures - my manager is very supportive, but marking, assessment, development of curriculum eats away at available time" (#114). Another notes:

> I don't have time to do any of the things I am responsible for doing fully. The administrative responsibilities of academic staff have increased dramatically in the few years I've been in my position, to the point where the only way for staff to cope is to put some of those responsibilities aside. Some of the responsibilities require institutional, administrative and infrastructure support that is not available at the level required. (#231).

As well as time and administration, participants also mentioned teaching out of field and uncertainty about their capacity to teach: "I'm not teaching in my field, I'm not formed to be a teacher" (#354). University systems also were noted as restrictive, with participants feeling "[l]imited capacity to drive change across Faculty in current position" (#180) and the need to "fit an approach into a recognised [*sic*] model for assessment, unit outlines, etc." (#121). Lack of resources and student engagement were further, more rarely mentioned aspects that university teachers mentioned as keeping them from fulfilling their responsibility.

RQ3: Are there different types of university teachers in the light of their assumed responsibility?

Study 1. In order to identify different types of university teachers, cluster analyses were performed based on objects of responsibility German and Swiss university teachers had named in the qualitative data. The proportion of nomination for each responsibility category was entered into the analysis. For example, Participant 1 named 4 responsibilities: Teaching=1, Relationships=2, Motivation=1, Achievement=0, Admin=0. Data entered for Participant 1 was: T=25, R=50, M=25, AC=0, Ad=0. Participant 2 named 3 responsibilities: T=0, R=3, M=0, AC=0, Ad=0. Data entered for Participant 2 was: T=0, R=100, M=0, Ac=0, Ad=0).

A 2-step cluster analysis was performed combining hierarchical clustering using Ward's method and subsequent cluster optimization by the k-means algorithm (cf. Asendorpf, Borkenau, Ostendorf, & Van Aken, 2001). The statistical criteria suggested by Bacher (2001) were used to identify the appropriate number of clusters. T-tests were conducted to examine significant effects of cluster membership on the variables employed in the cluster analysis (e.g., teaching, relationships, motivation, achievement, and administration). Findings revealed three distinct clusters of university teachers, namely teaching-, student-, and achievement-oriented university teachers. Table 3 and Figure 4 present the characteristics of the three identified groups.

Table 3
Clusters of German and Swiss University Teachers With Respect to Their Sense of Responsibility

Responsibility	teaching-oriented university teachers (N=114)			student-oriented university teachers (n=128)			achievement-oriented university teachers (n=23)			F-value	p
	M (SD)	Min	Max	M (SD)	Min	Max	M (SD)	Min	Max		
Teaching	89.12 (14.24)	60.00	100.00	42.38 (18.89)	.00	66.67	14.86 (19.78)	.00	50.00	312.44	<.001
Relationships with Students	2.50 (7.35)	.00	25.00	33.23 (21.62)	.00	100.00	8.84 (15.88)	.00	50.00	108.80	<.001
Motivation	2.38 (7.95)	.00	33.33	6.97 (16.96)	.00	100.00	9.42 (16.53)	.00	50.00	4.52	<.05
Achievement	2.65 (8.33)	.00	33.33	2.10 (7.40)	.00	33.33	65.43 (22.96)	33.33	100.00	414.95	<.001
Administration	3.35 (9.54)	.00	33.33	15.33 (23.64)	.00	100.00	1.45 (6.95)	.00	33.33	16.03	<.001

While teaching-oriented university teachers mostly expressed feeling responsible for their teaching, student-oriented university teachers also feel responsible for their relationships with their students and the administrative aspects that come with that. Participants in cluster 3 were called achievement-oriented university teachers as they mainly mentioned feeling responsible for their students' achievement and considerably lower for aspects such as teaching, relationships with students, or their students' motivation.

No significant differences between the groups could be identified with regard to their sense of being able to fulfill their responsibility, or their desired and actual work distribution, or the discrepancy between them.

Regarding the different subject areas university teachers stated to be teaching in, chi-square analyses revealed significantly more student- than teaching-oriented university teachers in Languages and Cultural Studies (x^2=4.75, p<.05). Overall, the cluster of student-oriented university teachers held significantly more teachers of Languages and Cultural Studies, as well as Mathematics, than university teachers of Jurisprudence, Economy and Social Studies, or Medicine (p<.05).

Study 2. Just like Study 1, Australian participants' proportion of nomination for each responsibility category was entered into a 2-step cluster analysis in order to identify different types of university teachers with regard to the objects they feel responsible for as university teachers. Findings revealed three distinct clusters of university teachers, namely teaching-, student-, and administration-oriented university teachers. Table 4 and Figure 5 present the characteristics of the three identified groups.

While teaching-oriented university teachers mostly expressed feeling responsible for their teaching, student-oriented university teachers also felt responsible for their relationships with their students and their motivation and achievement. Participants in cluster 3 were called

administration-oriented university teachers as they strongly (95.24%) focused on administrative responsibilities.

No significant differences between these groups could be identified with regard to Australian university teachers' desired and actual work distribution or the discrepancy between them, but admin-oriented university teachers felt generally more able to fulfill their responsibilities than teaching-oriented university teachers (p<.05). Regarding the different subject areas university teachers stated to be teaching in, chi-square analyses revealed significantly more student- than teaching-oriented university teachers in Languages and Cultural Studies (X^2=3.84, p<.05).

Discussion

This study aimed to explore university teachers' sense of responsibility, which is important because it is strongly related not only to teachers' own motivation and work satisfaction, but also to the quality of student outcomes. The samples included university teachers at different stages of their careers and from different countries and university cultures.

In both studies, university teachers' sense of responsibility revolved around their teaching, with 59.42% of German and Swiss and 59.02% of Australian university teachers' statements focusing on the responsibility for instruction and subject content. An object of teacher responsibility unique to university teachers is administration. Administrative tasks were not mentioned in prior studies with school teachers but was mentioned considerably often: 9.42% of statements in Study 1 and 11.65% in Study 2. This finding can be assumed to relate to the context university teachers find themselves working in. In contrast to schools, study courses at the university need regular adapting to new

Table 4
Clusters of Australian University Teachers With Respect to Their Sense of Responsibility

Responsibility	teaching-oriented university teachers (N=44)			student-oriented university teachers (n=29)			admin-oriented university teachers (n=7)			F-value	p
	M (SD)	Min	Max	M (SD)	Min	Max	M (SD)	Min	Max		
Teaching	81.48 (16.12)	.60	100.00	27.82 (19.27)	.00	50.00	4.76 (12.60)	.00	33.33	119.50	<.001
Relationships with Students	6.63 (12.05)	.00	33.33	26.15 (28.53)	.00	100.00	0.0 (0.0)	.00	.00	10.58	<.001
Motivation	2.58 (7.50)	.00	33.33	18.22 (27.74)	.00	100.00	0.0 (0.0)	.00	.00	7.67	<.05
Achievement	3.75 (9.81)	.00	33.33	18.91 (25.72)	.00	100.00	0.0 (0.0)	.00	.00	7.86	<.001
Administration	5.57 (10.19)	.00	40.00	8.91 (15.08)	.00	40.00	95.24 (12.60)	66.67	100.00	163.55	<.001

Figure 5
Clusters of Australian university teachers with respect to their sense of responsibility
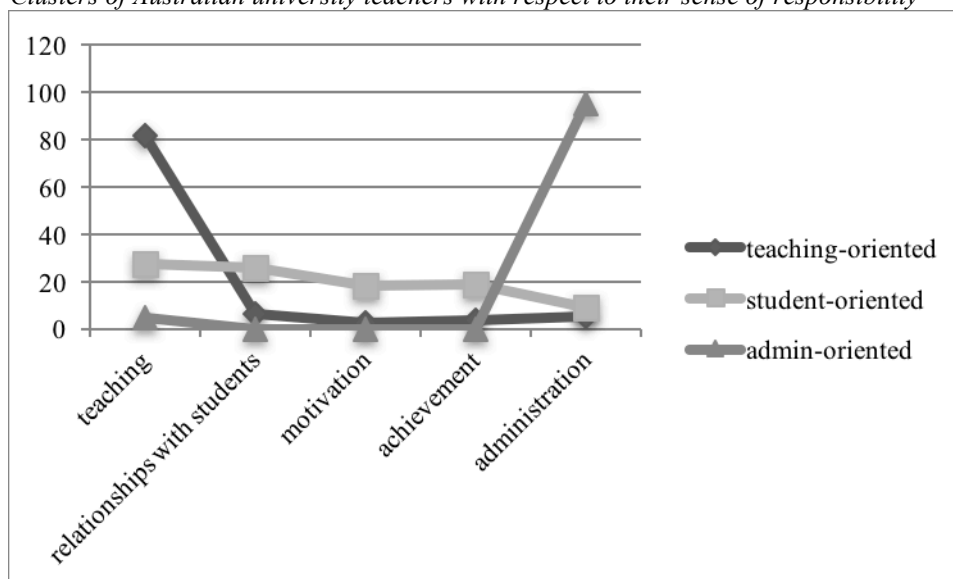
scientific as well as other developments, and also, much less than in a school context, they need coordination in order for lectures to match laboratory practice or seminars ("administrative effort, e.g. planning exams, organizing room plans, etc.," #379). Furthermore, a number of statements of German and Swiss university teachers regarding the responsibility for administration mention especially early career university teachers being responsible for preparing their professor's lectures or caring for everything besides the actual teaching of the lecture ("support for lecture – setting up laptop for professor," #529). Some teachers described feeling responsible for the organization of lectures and seminars because otherwise there would be "chaos" (#570) or because "nobody else does it" (#383). Regarding the other objects of responsibility, university teachers by and large did not seem to assume much responsibility for their students' motivation and achievement.

Although the findings show that these university teachers assumed responsibility for their relationships with students, the content of their relationship-focused statements strongly differs from those of school teachers (as shown in Helker and Wosnitza, 2014). For example, only few university teachers mentioned feeling responsible for personally counselling students and helping with problems outside the university. The majority of statements in this area focused on "being there for the students" (#378), on "subject-related counseling of students" (#488), or on "supervising students' work (solve problems – because I am the assistant)" #496). Data on the fulfillment of the assumed responsibilities revealed that in both studies the feeling of being able to fulfill specific responsibilities correlated with the fulfillment of others and overall teacher efficacy. German and Swiss university teachers very strongly expressed the wish to

spend more time on their own research and qualification and less time on administrative matters. This was somewhat similar with Australian university teachers, although the aspect of desiring time for their own research was not as prominent. These differences might possibly be explained by the differences between participants in the two studies regarding their experience and cultural settings. The need to gain qualifications to continue work at the university is not as dominant in other university work settings and in Germany and Switzerland at the early stages.

The analyses of the data from Study 1 revealed three types of German and Swiss university teachers: teaching-oriented, student-oriented, and achievement-oriented. While the student- and teaching-oriented groups were almost equally large, there were fewer achievement-oriented university teachers, who felt less responsible for their teaching, relationships with students, student motivation, and administrative matters, but focused on their students' achievement in end-of-semester exams.

The group of Australian university teachers in Study 2 also revealed three types of university teachers, namely teaching-oriented, student-oriented and admin-oriented university teachers. The group of teaching-oriented university teachers was the largest, while student-oriented university teachers (focusing on their teaching and relationships with students but also on students' motivation and achievement) was the second largest. In this study, the third group consisted of admin-oriented university teachers who predominantly felt responsible for administrative matters, organizing classes, and other issues.

The differences between the groups of university teachers in the two studies could be hypothesized to result from the different levels of experience of the university teachers involved in both studies. More experience with teaching at the university and the system itself might lead to a conscious or subconscious change in what a university teacher feels responsible for.

With teaching having been found to be perceived as neither rewarding (Neumann, 1996) nor having an influence on staff decisions in the faculty (Höhle & Teichler, 2013), the data in this study suggest further research into the question of university teachers' training. If the main goal that university teachers in these subject areas hold for teaching is "to get it over with", as was identified in prior research (Wosnitza et al., 2014), and if young university teachers receiving hardly any training (e.g., Ates & Brechelmacher, 2013), but are just "thrown in at the deep end," they can be assumed to not learn about further aspects of teaching than to organize the course (or have someone else organize it – see above) and just teach it. Future research using multiple methodological approaches like observations or student reports in combination with the instruments used in this study would shed light on this phenomenon. Furthermore, future studies will have to more thoroughly explore the differences between beginning and experienced university teachers as this study draws on data of university teachers from different countries, which can be seen as a limitation of this study.

Conclusion

This study expanded findings on the topic of teacher responsibility by the focus on early career university teachers. It showed that regarding their perceived responsibility, domains of teacher responsibility could also be identified in university teachers' data and be extended by the aspect of responsibility for administration issues. Furthermore, the data revealed different types of university teachers, regarding their assumed responsibility, whose distribution was found to differ between different subject areas. This aspect reveals a starting point for future research, as no research has yet focused on whether there are also different types of school teachers regarding their view of their responsibility.

The sample of this study is specific to German and Swiss, as well as Australian, university teachers with their own specific characteristics regarding job arrangement that is reflected in the demographics of the sample. It would be interesting to find out how teachers in other higher education settings and other countries respectively differ from these.

The present findings contribute to a better understanding of the challenging working context of university teachers and its effects on their sense of responsibility for teaching. Such insights may also provide senior university teachers and supervisors with valuable information regarding how to foster young academics' development of their sense of professional responsibility as university teachers among the competing demands of that role.

References

Åkerlind, G. S., & Jenkins, S. (1998). Academics' views of the relative roles and responsibilities of teachers and learners in a first-year university course. *Higher Education Research and Development, 17*(3), 277-289. doi:10.1080/0729436980170302

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*(3), 261–271. doi:10.1037//0022-0663.84.3.261

Asendorpf, J. B., Borkenau, P., Ostendorf, F., & Van Aken, M. A. G. (2001). Carving personality description at its joints: Confirmation of three replicable personality prototypes for both children and adults. *European Journal of Personality 15*, 169-198. doi: 10.1002/per.408

Ates, G., & Brechelmacher, A. (2013). Academic career paths. In U. Teichler and E. A. Höhle (Eds.), *The work situation of the academic profession in Europe: Findings of a survey in twelve countries* (pp. 13-35). Dordrecht, NL: Springer.

Bacher, J. (2001). Teststatistiken zur Bestimmung der Clusterzahl für Quick Cluster [Test statistics for determining the number of clusters for quick clusters]. *ZA-Information, Zentralarchiv für Empirische Sozialforschung, 48*, 71-97.

Bexley, E., James, R., & Arkoudis, S. (2011). *The Australian academic profession in transition: Addressing the challenge of reconceptualising academic work and regenerating the academic workforce*. Commissioned report prepared for the Department of Education, Employment and Workplace Relations. Retrieved from http://www.cshe.unimelb.edu.au/research/rec_pub lications/

Bierhoff, H. W., Wegge, J., Bipp, T., Kleinbeck, U., Attig-Grabosch, C., & Schulz, S. (2005). Entwicklung eines Fragebogens zur Messung von Eigenverantwortung oder: "Es gibt nichts Gutes, außer man tut es" [Development of a survey to measure personal responsibility or "There is no good if you do not do it"]. *Zeitschrift für Personalpsychologie, 4*(1), 4–18.

Bloch, R., Lathan, M., & Würmann, C. (2013). Trotz allem zufrieden mit der Lehre. Subjektive Lage und Haltung der Lehrenden an Universitäten [Despite everything, still satisfied with teaching: Subjective states and attitudes of university teaching faculty]. *Zeitschrift für Hochschulentwicklung, 8*(3), 42-58.

Bourke, S. (1990). Responsibility for teaching: Some international comparisons of teacher perceptions. *International Review of Education, 36*(3), 315-327.

Bouwma-Gearhart, J. (2012). Research university STEM faculty members' motivation to engage in teaching professional development: Building the choir through an appeal to extrinsic motivation and ego. *Journal of Science Education and Technology, 21*(5), 558-570.

Bracci, E. (2009). Autonomy, responsibility and accountability in the Italian school system. *Critical Perspectives on Accounting, 20*(3), 293-312.

Cretchley, P. C., Edwards, S. L., O'Shea, P., Sheard, J., Hurst, J., & Brookes, W. (2013). Research and/or learning and teaching: a study of Australian professors' priorities, beliefs and behaviours. *Higher Education Research & Development, 33*(4), 649-669. doi:10.1080/07294360.2013.863836

Daumiller, M., Figas, P., & Dresel, M. (2015). Selbstbezogene Ziele von Dozierenden: Ergebnisse einer Interviewstudie [Self-oriented goals of university teachers: Results from an interview study]. *Beiträge zur Hochschulforschung, 37*, 52-63.

Dellinger, A. B., Bobbett, J. J., Olivier, D. F., & Ellett, C. D. (2008). Measuring teachers' self-efficacy beliefs: Development and use of the TEBS-Self. *Teaching and Teacher Education, 24*(3), *751-766.*

Doff, S. (2006). Motivation to Teach: Hochschullehrerinnen und hochschullehrer und ihre motivation im beruf: eine annäherung. [Motivation to Teach: university teachers and their job motivation – an approach] In A. Küppers & J. Quetz (Eds.), *Motivation revisited: Festschrift für Gert Solmecke* (pp. 189-200). Münster, DE: LIT.

Fox, D. (1983). Personal theories of teaching. *Studies in Higher Education, 8*(2), 151-163. doi:10.1080/03075078312331379014

Geschwind, L., & Broström, A. (2014). Managing the teaching-research nexus: ideals and practice in research-oriented universities. *Higher Education Research and Development, 34*(1), 60-73. doi: 10.1080/07294360.2014.934332

Hackman, R. J., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology, 60*(2), 159-170.

Hackman, R. J., & Oldham, G. R. (1976). Motivation through the Design of Work: Test of a theory. *Organizational Behavior and Human Performance, 16*, 250-279.

Hagenauer, G., & Volet, S. (2014). 'I don't think I could, you know, just teach without any emotion': Exploring the nature and origin of university teachers' emotions. *Research Papers in Education, 29*(2), 240-262. doi:10.1080/02671522.2012.754929

Halvorsen, A.-L., Lee, V. E., & Andrade, F. H. (2009). A mixed-method study of teachers' attitudes about teaching in urban and low-income schools. *Urban Education, 44*(2), 181-224. doi: 10.1177/0042085908318696

Hattie, J., & Marsh, H. W. (1996). The relationship between research and teaching: A meta-analysis. *Review of Educational Research, 66*(4), 507-542.

Helker, K., & Wosnitza, M. (2014). Responsibility in the school context - Development and validation of a heuristic framework. *Frontline Learning Research, 2*(2), 115-139. doi:10.14786/flr.v2i2.99

Höhle, E. A., & Teichler, U. (2013). The teaching function of the academic profession. In. U. Teichler & E. A. Höhle (Eds.), *The work situation of the academic profession in Europe: Findings of a survey in twelve countries* (pp. 79-108). Dordrecht, DE: Springer.

Kammerl, R. (2008). Divergente verantwortungszuschreibungen als problemfeld beruflicher aus- und weiterbildung. In H. Pätzold (Ed.), *Verantwortungsdidaktik* (pp. 31–48). Baltmannsweiler, DE: Schneider-Verlag Hohengehren.

Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology, 92*(5), 1332-1356. doi:10.1037/0021-9010.92.5.1332

Jacob, A. K., & Teichler, U. (2011). *Der wandel des hochschullehrerberufs im internationalen vergleich - Ergebnisse einer befragung in den jahren 2007/08.* [The change of the university teacher profession in international comparison – Results of a survey in the years 2007/08]. Retrieved from https://www.uni-kassel.de/einrichtungen/fileadmin/datas/einrichtungen/incher/T_12__BMBF_Hochschullehrerstudie_2011.pdf

Johannes, C., & Seidel, T. (2012). Professionalisierung von hochschullehrenden. Lehrbezogene vorstellungen, wissensanwendung und identitätsentwicklung in einem videobasierten qualifikationsprogramm. [Professionalisation of university teachers. Teaching-related thoughts, use of knowledge and development of identity in a video-based qualification programme]. *Zeitschrift für Erziehungswissenschaft, 15*, 233-251.

Kember, D. (1997). A reconceptualisation of the research into university academics' conceptions of teaching. *Learning and Instruction, 7*(3), 255-275. doi:10.1016/S0959-4752(96)00028-X

Krücken, G., & Wild, E. (2012). Universitäre lehre in zeiten der studienreform und exzellenz-Initiative: Multiple zielverfolgung auf der ebene der organisation und ihrer individuellen akteure. [University teaching in times of study-reform and the initiative of excellence. Pursuing multiple goals on the organizational level and its individual actors.]. Bielefeld, DE. Report retrieved from: https://pub.uni-bielefeld.de/download/2468918/2468933

Lauermann, F. (2014). Teacher responsibility from the teacher's perspective. *International Journal of Educational Research, 65*, 75-89. doi:10.1016/j.ijer.2013.09.005

Lauermann, F., & Karabenick, S. (2011). Taking teacher responsibility into account(ability): Explicating its multiple components and theoretical status. *Educational Psychologist, 46*(2), 122-140. doi:10.1080/00461520.2011.558818

Lauermann, F., & Karabenick, S. A. (2013). The meaning and measure of teachers' sense of responsibility for educational outcomes. *Teaching and Teacher Education, 30*, 13-26. doi:10.1016/j.tate.2012.10.001

Locke, E. A., & Latham, G. P. (2006). New directions in goal-setting theory. *Association for Psychological Science, 15*(5), 265-268. doi:10.1111/j.1467-8721.2006.00449.x

Matteucci, M. C., & Gosling, P. (2004). Italian and French teachers faced with pupil's academic failure: The "norm of effort". *European Journal of Psychology of Education, 19*(2), 147-166.

Neumann, R. (1996). Researching the teaching-research nexus: A critical review. *Australian Journal of Education, 40*(1), 5-18. doi:10.1177/000494419604000102

OECD. (2012). *Fostering quality teaching in higher education: Policies and practices – An IMHE guide for higher education institutions.* Retrieved from https://www.oecd.org/edu/imhe/QT%20policies%20and%20practices.pdf

Postareff, L., & Lindblom-Ylänne, S. (2011). Emotions and confidence within teaching in higher education. *Studies in Higher Education, 36*(7), 799-813. doi:10.1080/03075079.2010.483279

Potvin, P., & Papillon, S. (1992). Teacher's sense of responsibility towards student achievement and their attitude. *Canadian Journal of Special Education, 8*(1), 33-42.

Prosser, M., Martin, E., Trigwell, K., Ramsden, P., & Middleton, H. (2008). University academics' experience of research and its relationship to their experience of teaching. *Instructional Science, 36*, 3-16. doi:10.1007/s11251-007-9019-4

Rowland, S. (1996). Relationships between teaching and research. *Teaching in Higher Education, 1*(1), 7-20. doi:10.1080/1356251960010102

Shin, J. C., & Jung, J. (2014). Academics job satisfaction and job stress across countries in the changing academic environments. *Higher Education, 67*, 603-620.

Stes, A., Min-Leliveld, M., Gijbels, D., & Van Petegem, P. (2010). The impact of instructional development in higher education: The state-of-the-art of the research. *Educational Research Review, 5*, 25-49. doi:10.1016/j.edurev.2009.07.001

Teichler, U., Arimoto, A., & Cummings, W. K. (2013). *The changing academic profession - Major findings of a comparative survey.* Dordrecht, DE: Springer.

Visser-Wijnveen, G. J., Van Driel, J. H., Van der Rijst, R. M., Verloop, N., & Visser, A. (2010). The ideal research-teaching nexus in the eyes of academics: Building profiles. *Higher Education Research and Development, 29*(2), 195-210. doi:10.1080/07294360903532016

Wosnitza, M., Helker, K., & Lohbeck, L. (2014). Teaching goals of early career university teachers in Germany. *International Journal of Educational Research, 65*, 90-103. doi:10.1016/j.ijer.2013.09.009

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