

## Similarities and differences in teaching behavior for honors and regular bachelor's education

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### Abstract

Many institutions of higher education offer honors education, but research on teacher behavior in honors classes is scarce. Our aim is to gain deeper understanding of how teachers adapt their teaching practices in the honors classroom as compared with the regular classroom. We conducted semi-structured interviews with 12 Dutch teachers who teach in both types of classroom. Using self-determination theory as an analytical framework, we found that teachers in both settings supported the basic psychological needs of autonomy, competence, and relatedness. In both contexts teachers aimed to guide students toward becoming competent autonomous professionals. We found a number of behaviors that recurred in both settings, sometimes performed somewhat differently. We also found some specific teaching behaviors for honors and regular bachelor's education.

*Keywords: teaching behaviors, regular bachelor's education, honors education, extracurricular education, higher education, self-determination theory*

## 1. Introduction

Since 2008, the Dutch government has invested in honors education to encourage institutions of higher education (HE) to develop new and appropriate education for their best and/or most motivated students (Gramberg et al., 2015). This form of education involves about 6-8% of the student population in the Netherlands (OECD, 2019). In Europe and worldwide, there are also growing initiatives to invest in the education of talented students who are motivated to achieve more and who need different challenges to better realize their potential (Allan, 2011; Allen et al., 2015; Long & Mullins, 2012; Wolfensberger, 2015). In addition to cognitive enhancement, these programs emphasize personal development and responsible citizenship for students to feel involved in and contribute to society (Janssen & Gramberg, 2014).

Deci & Ryan (1985, 2000) argue in their self-determination theory (SDT) that teachers play an important role in satisfying three basic psychological needs - autonomy, competence, and relatedness - that are crucial for promoting intrinsic motivation. Teachers can foster students' motivation by aligning their teaching behavior with the fulfillment of these fundamental needs. Examples of teaching behaviors that support the need for autonomy include providing choices (e.g., Patall et al., 2010) and connecting with students' interests (Niemic & Ryan, 2009; Reeve, 2009). Support for the need for competence can take the form of teaching behaviors that provide structure, for example, by setting clear expectations for how students can achieve desired goals (Sierens et al., 2009; Skinner & Belmont, 1993; Vansteenkiste et al., 2012). The need for relatedness is supported by teacher involvement. This can take the form of teaching behaviors in which teachers demonstrate their commitment to students, for example, by exploring their personal interests and concerns (Niemic & Ryan, 2009). Through their classroom behavior, teachers can play an important role in supporting students' intrinsic motivation.

So far, studies on honors education have focused mainly on educational design, organization, and planning (Gramberg et al., 2015; Wolfensberger, 2015). Research on teacher behaviors in honors education is scarce. The available research mainly consists of studies of student preferences, expectations and teaching needs, focusing on what students and teachers say is important for honors students (Kazemier et al., 2014; Scager et al., 2013, 2014). To date, the only study of teacher behavior in honors education in higher education is Wolfensberger's (2012). Based on her research, Wolfensberger (2012) translated the three types of SDT-related teaching behaviors into pillars of honors education. These pillars are: creating community, enhancing academic competence and providing freedom, linked with the behaviors teacher involvement, providing structure and supporting autonomy. *Creating community* focuses on creating a community of like-minded students and teachers who support each other (e.g., through providing feedback, by being available, showing interest, encouraging, inspiring and challenging). *Academic competence* focuses on developing students' academic competences (e.g., challenging learning activities, higher-order thinking skills and multidisciplinary thinking). The *freedom* pillar emphasizes the importance of autonomy for students (e.g., enabling them to shape their own learning, experiment and take responsibility for their own learning). Teachers approach them as junior colleagues. Using a questionnaire, interviews and focus groups, Wolfensberger (2012) then explored what honors teachers believe is at the heart of honors pedagogy. She asked them which of

the three pillars they thought were important for honors education versus regular education. In doing so, she explicitly encouraged teachers to answer from their views and perceptions rather than from their actual practical experience. The core of her findings was that according to teachers, all three pillars are more relevant in honors education than in regular higher education (p. 145). In honors education, teachers place a high value on creating community and providing (bounded) freedom for students to grow both academically and personally. In contrast, teachers in regular education consider structured teaching to be more important. Teachers felt that academic competence was important in both forms of education, but with different emphases (Wolfensberger, 2012). In honors education, they wanted to foster academic competence mainly through challenging tasks, and in regular education through clear explanations and expectations.

The formulation of pedagogical pillars for honors education is an important first step in identifying specific teaching behaviors for honors education. However, the actual application of these pedagogical principles in the daily practice of honors education remains unclear. In addition, we also do not know whether specific teacher behaviors in the daily practice of honors education differ from teacher behaviors in regular teaching practice. Therefore, we extend the scope of this study beyond Wolfensberger's (2012) work by mapping teachers' reported instructional practices, rather than focusing solely on their expectations for (honors) students. In doing so, we aim to gain a deeper understanding of the teacher behaviors used by the teachers in an honors setting compared to how the same teacher behaves in the regular classroom. Using semi-structured interviews with teachers who work in both settings, we examined which behaviors teachers report in the context of honors education and in the context of regular bachelor's education. To this end, we used the lens of SDT, because it has proven to be a useful theoretical framework for gaining insight into teacher behaviors that motivate students. Our research question is: What similarities and differences in teaching behaviors for honors and regular bachelor's education are reported by teachers working in both contexts?

## **2. Methods**

### *2.1 Research design*

We conducted an interview study with higher education teachers in order to compare two cases: honours and regular bachelor's education. We chose semi-structured interviews to be able to ask follow-up questions about teaching behaviors in real teaching situations (Boeije, 2016). This study approach allowed us to get an in-depth understanding of teaching behavior in classes. We selected teachers who taught in both honors and regular classes within the same institution. Our goal was to identify similarities and differences in teaching behavior at the group level, rather than between individual teachers. In order to reduce influences of individual teacher characteristics, we interviewed the same teachers about the two different classroom settings.

### *2.2 Context*

The Dutch higher education (HE) system consists of two types of institutions, each with a different focus in their programs: research-oriented and professionally-oriented programs. Both types of HE lead to bachelor's and master's degrees. Research-oriented bachelor's

programs last 3 years, while professionally-oriented bachelor's programs last 4 years. In this study, we focus on both types of bachelor's education.

Most institutions offer honors education in addition to regular bachelor's education. These programs sometimes replace part of the regular bachelor's program, but most honors programs are extracurricular (Allen et al., 2015). This study concentrates on extracurricular honors education.

Extracurricular honors programs are part of university-wide or departmental offerings. Honors students spend 420-840 hours, spread over 1 to 3 years, in an honors program. They do this in parallel with a regular bachelor's program. Students are admitted to an honors program at the end of the first year through a selection process based on grades, a letter of motivation and/or a resume. Honors programs are enrichment programs that emphasize interactivity, collaborative learning, challenge, discovery learning, critical thinking, reflection, space for personal initiative and interests, independence, personal development and interdisciplinarity (Allen et al., 2015; Janssen & Gramberg, 2014; Korthals, 2007). Universities set their own goals and profiles for honors education and their own way of graduating. Students may receive a separate honors certificate or an endorsement on their diploma upon completion. The number of participants per class in the honors programs in the study context is small, approximately 12 students per class (Allen et al., 2015), which allows for a more individualized and personalized mentoring experience. Students often come from different regular programs.

An important difference between regular bachelor's programs and extracurricular programs in the Netherlands is the external accreditation framework (NVAO, 2018) that bachelor's programs must meet. The criteria of this framework are intended learning outcomes, teaching-learning environment, student assessment and achieved learning outcomes. An external panel of independent experts, approved by the NVAO, evaluates these four criteria every six years. If the evaluation is positive - i.e. the program fully meets the quality requirements - the institution will retain its existing program accreditation. Bachelor students' education and graduation is based on meeting these criteria.

### *2.3 Sample and procedure*

Data were collected between September 2016 and November 2017 as part of a nationally funded research project (project start January 2016) about teacher behavior in (the then newly developed) higher excellence education. Data collection took place at the four Dutch HE institutions that formed a consortium as a part of this nationally funded research project. Two institutions offer 3-year, research-oriented bachelor's programs and two offer 4-year, professionally-oriented bachelor's programs. In addition, all institutions offered extracurricular honors education. Only teachers who taught both regular and extracurricular honors classes were included in this study.

Participants were selected using convenience sampling (Marshall, 1996). Twelve teachers, seven from a research university and five from a university of applied sciences, participated in this study. Departmental coordinators at the four institutions approached three or four teachers and asked if they would be willing to participate in the study. The first author then received the names of these teachers and sent them an email with a letter of information.

After confirming participation, the researcher contacted the participants by phone to schedule the interview. We ended up talking to four faculty members from one institution, three each from two institutions, and two from one institution. The interviews were conducted at the participant's preferred location and lasted between 50 and 80 minutes. To avoid bias, the first author did not interview participants from her own institution. These interviews were conducted by the third author.

Ten of the interviews were in Dutch; the remaining two were in English. Each interview was recorded, transcribed verbatim, and anonymized, with the consent of the participants. All participants participated voluntarily and signed an informed consent form. Data processing was confidential and results cannot be traced back to individual participants. To ensure the reliability of the data collection, participants checked the transcript for factual inaccuracies. The study and procedure were approved by the NVMO (Netherlands Association for Medical Education) Ethics Committee (NVMO-ERB, file number 721). Table 1 provides an overview of the participants' demographics: gender, years of teaching experience in regular education, years of teaching experience in honors education and the department in which they work.

*Table 1. Participant demographics*

Gender	Teaching experience (years)		Department
	Regular bachelor's	Honors	
F	5	4	International Business
F	16	8	International Business
M	3	3	Pedagogy
M	4	6,5	Law
F	32	15	Ethics
M	29	7	Biology
M	28	18	Pharmacology
M	28	5	Medicine
M	13	1	Engineering
M	35	10	Statistics
F	13	13	Biology
M	30	4	Medicine

#### *2.4 Instrument*

Semi-structured interviews were conducted using the STAR methodology (Kraal & Van den Heuvel, 2012) to gain insight into the actions and behaviors of individual teachers in specific teaching situations. This method consists of four steps: discuss the specific situation (S), what was your teaching task (T), what were your actions (A) in that situation, and what was the outcome (R) of the situation you are describing. In our study, we combined the S and R in the first question: Can you describe an actual teaching situation (S) in which you successfully motivated your students (R)?

In order to gain more insight into the teaching situation (S), we asked the teachers about the group size and the year of study of the students in the selected teaching situation. In order to better understand the teaching task (T) and role in this specific situation, we asked them

about their focus in the teaching situation. This could be a focus on guiding students in their learning process through workshops, feedback sessions, or mentoring. We have framed this as a tutorial. It could also be a focus on imparting knowledge, which we have framed as a lecture. In addition, we asked the following questions: what specific activities (A) or behaviors did you use to motivate the students and can you give some specific examples. The question about the outcome or result (R) of the activities and behaviors was used as an illustration to better understand what behaviors they used in the teaching situation. The questions asked first about the honors setting and then about the regular setting.

### *2.5 Data analysis*

We conducted a combination of inductive and deductive analysis of the transcribed interviews using QDA software. The unit of analysis was a coherent text fragment about a teaching behavior in a teaching situation. The inductive coding consisted of three stages of open, axial, and selective coding (Boeije, 2016; Hennink et al., 2010). The first author took the lead in the coding process. During each coding stage, meetings were held with members of the research group to discuss the process and the evolving interpretations. The purpose of the meetings was also to reach agreement on the clusters of reported teaching behaviors.

During the open coding phase, teaching behaviors were identified inductively through constant comparison (Patton, 2015). Each text fragment was given a code that captured its essence in a few words. We also added the subcode “honors” or “regular” to each coded fragment. In this phase, we identified 313 coded text fragments concerning teaching behaviors for honors education, and 204 coded text fragments concerning teaching behaviors for regular bachelor’s education.

In the next phase, the axial phase, similar codes were clustered, split or renamed. In order to answer the research question, the codes were integrated around central categories. The axial phase resulted in 23 codes for teaching behaviors for honors education, and 14 codes for regular education. The axial code tree can be found in Appendix A.

The final phase, selective coding, involved interpretation of the codes. The first and third author compared axial codes, made connections between codes, and examined coherence. This phase resulted in 11 teaching behaviors. The selective codes can be found in Appendix A. Six behaviors were characteristic of both honors and regular education, four were characteristic of honors education, and one behavior was mentioned specifically for regular education. Saturation was reached after eight interviews. After completing the inductive coding, we conducted a deductive analysis using SDT as our analytical lens to identify how teachers supported students’ needs for autonomy, competence, and relatedness through their teaching behaviors.

## **3. Findings**

Section 3.1 provides insight into the similar teaching behaviors that were found in both forms of education. Section 3.2 provides insight into the teaching behaviors that we identified only in honors education, and Section 3.3 provides insight into the teaching behaviors that were specific to regular education. Table 2 illustrates the characteristics of

each teaching situation (group size and year of study of the students) and the teaching task (tutorial or lecture) in both honors and regular classes.

Table 2. Teaching situations and teaching tasks in honors and regular classes

Resp. number	Honors			Regular		
	Teaching situation (S)		Teaching task (T)	Teaching situation (S)		Teaching task (T)
	Group size	Year		Group size	Year	
1.	15	4	Tutorial	20	4	Tutorial
2.	15	4	Lecture	27	4	Lecture
3.	18	2	Tutorial	25	2	Lecture
4.	17	2	Tutorial	20	2	Tutorial
5.	20	3	Tutorial	25	2	Tutorial
6.	15	2	Tutorial	15	1	Tutorial
7.	15	3	Lecture	80	2	Lecture
8.	8	2	Tutorial	8	2	Tutorial
9.	13	2	Tutorial	20	2	Tutorial
10.	20	2	Tutorial	25	2	Tutorial
11.	20	3	Tutorial	20	2	Tutorial
12.	20	2	Lecture	40	1	Lecture

### 3.1 Teaching behaviors in honors and regular education

Teachers reported six behaviors (see Table 3) that they used in both types of education, but in somewhat different ways: *organizing meetings, asking questions, being clear about expectations, giving responsibility, building relationships* with the student and with each other, *providing safety and giving trust*. Table 3 shows the teaching behavior and its description by type of education, the associated teaching method with an example, and the number of teachers reporting the behavior. The examples have been translated from Dutch to English, where necessary.

Table 3. Similar teaching behaviors in honors and regular education (N = 12)

Teaching behavior and description	Teaching method in honors education and an example	n	Teaching method in regular education and an example	n
1. <i>Organizing meetings:</i> Teachers plan meetings and use organizational formats to achieve their goals.	Teachers use formal meetings to achieve content goals.  They do this through such means as workshops, peer review, portfolios, essays, individual (progress) interviews.	11	Teachers use formal meetings to achieve content goals.  They do this through such means as group collaboration, reflection time, lectures, experts, working on assignments.	5

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	<i>"I do individual interviews with students to find out if they are on the right track and to see if they need any help."</i>		<i>"I try to set it up so that they have to work together and inspire each other."</i>	
2. <i>Asking questions:</i> Teachers ask questions to get a clear understanding of the student's approach.	The purpose of the questions is to focus on progress in personal development.  They do this through questions that focus on challenging students to discover what they want.  <i>"So I don't tell them how to do it, but I ask them: how are you going to make sure that your learning is successful? Or how are you going to ensure that what you really want to accomplish inside yourself is really accomplished."</i>	11	The purpose of the questions is to focus on progress in mastering the subject matter.  They do this through questions that focus on looking back, and on progress.  <i>"With regular students, I am then closer to them in the sense that I am always asking them how far they have come. Where are they."</i>	10
3. <i>Being clear about expectations:</i> Teachers provide structure by giving clear frameworks, goals and assessment criteria.	The goal is to provide insight into the frameworks and playing field of the program.  They do this by making it clear in advance what is set, what they expect of students. Some frameworks are needed to allow room for student initiative	10	The goal is to provide insight into the frameworks of the course.  They do this by making it clear in advance what is set, what they expect of students. These frameworks are needed to guide	11



	in how they want to learn.		what students will learn.	
	<i>"We have just defined seven new principles that we want to work on. So in the absolute scope I say ... guys, this is the framework. I'm giving them a bit of direction and guidance: it can't go off in all directions anymore. Within this structure, they have to decide for themselves."</i>		<i>"I tell them: these are the guidelines for your report. The report has to be this long, it has to focus on this, and you have to apply this model and some theory."</i>	
4. <i>Giving responsibility:</i> Teachers explicitly put part of the learning process under the control of the student.	They do this by responding to students' interests and offering them choices.  In addition, teachers encourage their students to take the initiative and take ownership of their own approach.  <i>"My strategy is to organize it so that they have to do a lot themselves."</i>	11	They do this by responding to students' interests and offering them choices.  <i>"I always try, though, not to tell them: you have to read this article as an assignment, but to say here you have 10 articles; choose one. That already gives them something of a sense of freedom."</i>	12
5. <i>Building relationships:</i> Teachers organize informal gatherings to get to know each other.	They do this to get to know the student and each other, and to ensure that the student feels seen.  They also approach their students as equal conversational partners from whom they can learn.	9	They do this to get to know the student and each other, and to ensure that the student feels seen.	6

	<p><i>"We treat them very much like junior associates at this point. We try to involve them in our own research. And we take them seriously."</i></p>		<p><i>"I try to get to know my regular students as well as I can."</i></p>	
<p>6. <i>Providing safety and giving trust:</i> Teachers provide a safe learning environment.</p>	<p>They do this by affirming to them that they have done well, by removing fear and uncertainty, by providing support, and by creating a safe environment.</p> <p><i>"I do my best to provide this safe atmosphere."</i></p>	8	<p>They do this by affirming to them that they have done well, by removing fear and uncertainty, by providing support, and by creating a safe environment.</p> <p><i>"I try to create an open atmosphere where they feel safe, they know: Okay, we can say things."</i></p>	5

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Table 3 shows the similar teaching behaviors. Teachers supported the three basic needs in both types of education. By *organizing meetings*, *asking questions*, and *being clear about expectations*, they provided structure, and supported the need for competence. By *giving responsibility*, they supported the need for autonomy. By *building relationships*, *providing safety and giving trust*, they showed teacher involvement, and supported the need for relatedness. Although teachers reported similar teaching behaviors (e.g., asking questions), we saw differences in how they were performed. Below we describe the behaviors, the intentions behind their use by teachers, and the differences identified for honors and for regular education.

1. Organizing meetings: supporting learning  
Teachers provided structure by *organizing meetings* to focus on the content goals of the program or course. They mentioned the use of lectures, workshops, and forms of reflection in both forms of education. In addition, in their examples of honors education, teachers also mentioned individual conversations to support personal development, and forms of work designed to take students out of their comfort zones, such as a boot camp or pressure-cooker weekend.
2. Asking questions: personal learning versus content-related progress  
Teachers in both types of education *asked questions* to understand their students' approaches and progress. In this way, they provided structure, but their intent in

asking questions was different. Teachers consistently challenged honors students to figure out what they needed to take the next step in their (personal) learning process. They wanted to encourage students to discover, explore, experiment, think, and reflect independently. In contrast, when regular education teachers asked questions, they wanted to get a picture of what students were thinking about, check where they were, or how they wanted to approach it, and what they had found. All of this in relation to mastery of the course content.

3. **Being clear about expectations: providing freedom versus providing direction**  
In both types of education, teachers provided structure by *clarifying expectations*. In honors education, teachers were explicit about the end goal, the criteria, the deadlines, the background information, and the expectations, and then left room for students to figure out the how. In this way, teachers leveled the playing field for honors students. In the regular classroom, teachers provided clarity about what students needed to know and do to pass the course, what guidelines they needed to follow, and where their professional boundaries lay.
4. **Giving responsibility: full versus partial responsibility**  
Teachers *gave responsibility* to their students for 'the what and how' of their learning. They did so with the intention of matching their students' interests and supporting their need for autonomy. However, the degree of responsibility differed from one type of education to the other. In honors education, teachers encouraged their students to take full responsibility for their own learning, to ask for feedback, and to decide for themselves what they wanted to learn. In regular education, teachers encouraged their students to make their own content choices within the course (e.g., choosing the topic of an assignment, the company for the internship, who they wanted to work with, studying something extra).
5. **Building relationships: building relationship of equality versus building a relationship**  
Teachers wanted to *build relationships* with both groups of students to get to know each other better. In doing so, they supported the need for relatedness. They felt it was important for students to feel known and seen. In addition, within the honors classroom, teachers wanted to strengthen the bond with their students by learning from and with each other. They approached their honors students as equal partners in a discussion in which both teacher and student were open about how they felt about the topic.
6. **Providing safety and giving trust**  
Teachers aimed to provide a *safe environment* for all their students, where openness and *trust* were central. To achieve this, they approached their students in a positive way to give them confidence. They wanted to create an environment where every student dared to speak up, dared to be open, and dared to experiment. Teachers saw this form of teacher involvement as a foundation for learning and growth for all students. We found no differences in the practice of this teaching behavior between honors and regular classrooms.

### 3.2 Teaching behaviors in honors education

Teachers reported four teaching behaviors that they used only in honors classes. These were (see Table 4): providing *tailored guidance*, using an *open approach to assignments*, encouraging *finding one's own potential*, and being *easily accessible*. Table 4 presents the teaching behavior and its description, the associated teaching method, the number of teachers who reported this behavior, and an example. The examples have been translated from Dutch to English, where necessary.

Table 4. Teaching behaviors in honors education (N = 12)

<b>Honors teaching behavior and description</b>	<b>Teaching method</b>	<b>n</b>	<b>Example</b>
1. <i>Tailored guidance</i> : Teachers adapt to what they believe the student needs at that moment.	They do this by explaining content in different ways, challenging the student, providing personalized feedback, consciously staying more in the background to let things happen, or intentionally not explaining everything.	12	<i>"With honors students, it depends on the moment. And when I notice that they've dropped out for a moment, I take a step back myself. And then I tell the story again in a different way."</i>
2. <i>Open approach to assignments</i> : Teachers formulate large, complex assignments with open-ended outcomes.	They do this by giving students a lot of space and freedom in how they want to approach the assignment. The assignments include challenging students to step out of their comfort zone. The teacher is often at a distance.	9	<i>"... and they get a job that the client is going to pitch, then they get to choose which one they like the most, and then they do an intake interview with the client. And then they agree with that client what the moments of contact are, what their dealings are, and then they have to make their own schedule, and then they also have to tell the client: this is how we are going to do it next year. But other than that, they have to figure it out for themselves."</i>
3. <i>Finding one's own potential</i> : Teachers encourage students to grow and discover their potential.	They do this by allowing students to become and know themselves.	8	<i>"Know, want, can, do. Knowing is knowing what you are good at, so we also have an assessment of your strengths. You know that ... you probably know that already. So that's where it starts. And then the desire, "What are your dreams, what are</i>

*your drives? What do you need now?"*

4. <i>Providing easy access to support:</i> Teachers are available to students.	They do this by responding quickly to email, making time for students, and being present.	4 <i>"My door is always open, and my app, phone, and computer are always responsive."</i>
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Table 4 shows the specific teaching behaviors for honors education. From an SDT perspective, these behaviors address two of the three basic needs: autonomy and competence. *Tailored guidance* was characterized by a carefully considered balance between providing structure and supporting autonomy, allowing teachers to respond to what individual students needed in the moment. In one situation, they might challenge a student to step out of their comfort zone and figure things out on their own; in another, they might explain concepts in a different way. Feedback was highly personalized. Teachers indicated that they were able to provide this *tailored guidance* because they knew their students well and were therefore aware of their current educational needs. Their goal was to promote student agency in learning.

Teachers also supported autonomy in two other ways. By teachers taking an *open approach* to *assignments*, students were given tasks that broadened or deepened their knowledge, rather than relying on prior experience or routines. Teachers felt that the open nature of the task, with limited directions and an open-ended outcome, provided a great deal of room for individual approaches, planning and solutions. Through the teaching behavior of *finding one's own potential*, they let students discover for themselves who they were, what they wanted, and what they could handle. They supported this journey of discovery with questionnaires or self-scans. In addition, they encouraged students to formulate personal and/or professional goals by asking, for example, "Where do you want to be in two years?"

Teachers supported the need for competence through one type of structure behavior. They reported *providing easy access to support* students with questions, responding quickly to emails or phone calls, and allowing students to walk in without making an appointment.

### *3.3 Teaching behaviors in regular education*

Teachers reported one teaching behavior that they used only in regular education (see Table 5): a *step-by-step approach*. Table 5 shows the teaching behavior and its description, the associated teaching method, the number of teachers who reported this behavior, and an example. The example has been translated from Dutch to English.

Table 5. Teaching behaviors in regular education (N = 12)

Regular teaching behavior regular and description	Teaching method	n	Example
1. <i>Step-by-step approach:</i> Teachers guide students step-by-step by explaining how to prepare for and approach the assignment.	They do this by giving lots of real-life examples and support to make the content more recognizable or by clarifying the why of the assignment.	10	<i>" Making sure they understand .... So it's also a lot of training. So to the extent of: Hey, you have to pass the course and I'm just going to help you pass the course. And then I'm just going to give you insight into what your thought process is and how you can take steps in that to master this subject. So that's much more content-oriented, subject-oriented."</i>

Table 5 shows the specific teaching behavior for regular education. Teachers met the need for competence by providing structure through the use of a step-by-step approach to help students understand and apply the course content. They supported them by breaking the course into smaller pieces and providing resources, such as presentation format, knowledge clips, roadmaps, handouts, and/or feedback forms. Their intention was to make the course material easy to understand, thereby increasing the likelihood that students would complete the course. In addition, they were focused on helping their students become highly educated, autonomous professionals by providing useful and recognizable content examples and practical support for professional learning.

#### 4. Conclusion and discussion

Our research question was: What similarities and differences in teaching behaviors for honors and regular bachelor's education are reported by teachers working in both contexts? We interviewed teachers who taught in both honors and regular classes within the same institution and used the analytical lens of SDT. We found a number of behaviors that recurred in both settings, sometimes performed somewhat differently. We also found some specific teaching behaviors for honors and regular education.

#### Discussion

##### 4.1 Similarities in teaching behavior

All three basic needs were supported in both educational settings, sometimes through the same teaching behaviors. In both contexts, teachers aimed to guide students toward becoming highly educated, autonomous professionals. They provided a foundation for addressing the need for competence by asking questions and working with an array of meetings. In addition, they emphasized the importance of clearly communicating expectations about what students need to know and do to pass the course, all within a safe environment where teachers and students have established relationships. To support

students' autonomy, they gave them responsibility for making content choices that matched their interest in becoming autonomous professionals. One notable example of differences in the application of these teaching behaviors in the honors and regular classrooms was seen in the giving of responsibility. In the honors context, teachers expressed their intention to challenge students to take ownership and initiative in their own learning process, focusing on personal development. In this way, they gave responsibility to the students.

Effective teaching practices include supporting all three basic needs (e.g., Deci & Ryan, 2000; Niemiec & Ryan, 2009; Reeve, 2009). Our findings show that teachers report making a genuine effort to meet the educational needs of all students through similar teaching behaviors. Comparing our findings with Wolfensberger's (2012) study, we found that the SDT teaching behaviors of supporting autonomy, providing structure, and teacher involvement were used by teachers in both forms of education. In doing so, the teachers demonstrated that these teaching behaviors were relevant to them in both contexts.

#### *4.2 Differences in teaching behavior*

In honors education, there is more variation in teaching behaviors in terms of supporting the need for autonomy and the need for competence. Honors teachers actively support their students' autonomy by challenging them through open-ended assignments and by helping them find their own potential. In addition they provide structure by tailoring guidance to what students need at a particular time and by providing easy access to support. In regular teaching, teachers provided structure through a step-by-step approach. This is a systematic approach that breaks the course down into manageable steps, allowing students to apply and understand the material gradually.

The explanation for the main differences in teaching behaviors between honors and regular education was the different focus of the learning process. Honors education emphasizes personal development and individual learning, while regular education focuses on preparing students to become autonomous professionals. The broader repertoire of need-supportive behaviors in honors education raises questions about what causes these differences and whether regular education could also benefit from this broader repertoire.

Other factors that may explain the differences in teaching behavior between honors and regular education are group size and the focus of the teaching task. All group sizes in honors education were smaller than or equal to those in regular education. In addition, in honors education, most teachers reported that their task was guiding the learning process through workshops, feedback sessions, or mentoring. Even when focused on imparting knowledge in a lecture, the group size in honors was smaller than in regular bachelor's education. In smaller classes, teachers have more time to attend to individual students, which can lead to more individualized instruction, a greater scope for innovation, student-centered teaching, and student engagement in academic activities (Hattie, 2009; Kember, 1997).

A third explanation of the differences in teaching behaviors is that extracurricular honors education, unlike regular education, is not subject to external testing and accreditation requirements (NVAO, 2018). Because they do not offer a full curriculum, teachers in honors education are not constrained by policy restrictions or "pressure from above" (Pelletier et al., 2002), which explains why they experience more autonomy in supporting students'

personal learning processes. Mehta and Fine (2019) also found that autonomy support is primarily available at the periphery of schools, such as in elective and extracurricular (honors) programs.

In addition, honors education offers programs specifically designed for students who want more and can do more (Wolfensberger, 2015) and selects these students before the start. As a result, honors teachers may have higher expectations for their honors students from the start. Studies in elementary and secondary education have found that teachers with high expectations use different instructional practices than teachers with low expectations (Brophy & Good, 1970; Denessen et al., 2020; Rubie-Davies, 2007). Hornstra et al. (2018) found that in secondary education, students perceived the teaching approach as more supportive of their needs when their teachers had high expectations for them. To our knowledge, this has not been further investigated in higher education. In our study, we found that high expectations manifested as teachers' trust in honors students, which was evident in challenging them with complex, open-ended tasks and fostering their personal development through letting them take responsibility and take the initiative.

#### *4.3 Limitations and follow-up research*

Although this study provides valuable insights into teaching behaviors, it has certain limitations that should be acknowledged. First, it is important to note that this qualitative study was conducted in a Dutch HE context and involved a limited number of teachers from four institutions. To gain more comprehensive understanding of teaching behaviors in HE and the underlying mechanisms, extending the study to other European countries might provide additional insights and identify potential patterns in different contexts. A second limitation relates to the self-reported nature of the data, as teachers described situations that they remembered as successful. It is unclear whether these reported teaching behaviors are representative of what teachers do regularly in their classrooms or whether they were occasional successful instances. In addition, the study lacks information about the specific interactions between teachers and their students. Conducting an observational study in HE would provide a more detailed perspective on teachers' instructional practices and their actual interactions with students. This is particularly important because existing observational studies of SDT teaching practices have predominantly focused on secondary schools and secondary vocational institutions (e.g., Cents-Boonstra et al., 2020; Haerens et al., 2013; Reeve et al., 2004; Van den Berghe et al., 2013, 2016). Furthermore, it is crucial to note that the study was conducted in extracurricular honors education and regular bachelor's education in a broad sense. However, there are also components within regular bachelor's programs where teachers have more freedom and are potentially less affected by accountability pressures. Therefore, a follow-up study of teaching behaviors in regular bachelor's programs could examine these areas of freedom, such as minors and other electives, to see if parallels can be drawn with the teaching behaviors identified in honors education. A final limitation is that we did not examine the convictions and beliefs of HE teachers. However, we asked them about their intentions to use certain teaching behaviors to meet students' needs. Follow-up research on the relationship between beliefs and need-supportive teaching behavior in higher education would be a valuable addition.



#### 4.4 Conclusion

All three basic needs were supported in both educational settings. We found a number of behaviors that recurred in both settings, sometimes performed somewhat differently. We also found some specific teaching behaviors for honors and regular education. Characteristic of regular bachelor's education is that teachers provide structure through a step-by-step approach. Characteristic of honors education is more variation in teaching behaviors in terms of supporting autonomy and the need for competence. Honors teachers trust their students to take ownership and initiative in their own learning process.

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**Appendix A.** Axial and selective codes

Code tree axial coding	Selective coding
Main codes and subcodes for honors and for regular education	Teaching behaviors for both honors and regular education

Main code honors: organizing meetings

Subcodes:

- H1. Working with different teaching methods
- H2. Organizing meetings

---

**Organizing meetings**

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Main code regular: working with different teaching methods

Subcode:

- R1. Working with different teaching methods

Main code honors: asking questions

Subcodes:

- H3. Questioning
- H4. Setting own goals

---

**Asking questions**

---

Main code regular: checking questions and being directive

Subcodes:

- R2. Asking check questions
- R3. Being directive/controlling

Main code honors: being clear about expectations

Subcodes:

- H5. Being clear about expectations
- H6. Explanation of background example

---

**Being clear about expectations**

---

Main code regular: providing clear frameworks

Subcodes:

- R4. Clear frameworks and outline program
- R5. Being clear about expectations

---

Main code honors: giving responsibility

Subcodes

H7. Fostering ownership

H8. Giving responsibility

---

**Giving responsibility**

---

Main code regular: allow self-determination of some of the content

Subcodes:

R6. Let students determine part of the content

R7. Encouragement

R8. Making small (sub)groups

R9. Challenge students

---

Main code honors: equivalence and building relationships

Subcodes:

H9. Discovering and learning together

H10. Equivalent approach

H11. Building relationships with the student

---

**Building relationships**

---

Main code regular: building relationships with the student and each other

Subcode:

R10. Getting to know/ bond with students

---

Main code honors: providing safety and giving trust

Subcodes:

H12. Providing safety

H13. Giving trust

H14. Giving confirmation

---

**Providing safety and giving trust**

---

Main code regular: providing safety and giving trust

Subcodes:

R11. Creating a safe atmosphere

---

**Main codes with subcodes for honors education**

**Teaching behaviors for honors education**

---

---

Main code: tailored guidance

Subcodes:

H15. Tailored guidance

H16. Staying in the background

H17. Giving individual feedback

---

**Tailored guidance**

---



---

Main code: open approach to assignments

Subcodes:

H18. Open approach to assignments

H19. Challenging in-depth assignment

---

**Open approach  
to assignments**

---



---

Main code: finding one's own potential

Subcodes:

H20. Allowing self-discovery

H21. Encouraging to expand boundaries

H22. Finding one's own potential

---

**Finding one's own  
potential**

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---

Main code: providing easy access to support

Subcode:

H23. Easily accessible

---

**Providing easy access  
to support**

---



---

**Main codes and subcodes for regular education**

---

**Teaching behaviors  
for regular education**

---

Main code: step-by-step approach

Subcodes:

R12. Step-by-step approach

R13. Explaining

R14. Indicating the rationale

---

**Step-by-step  
approach**

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*Note* The subcodes for honors education start with the letter H. The subcodes for regular education begin with the letter R.