

# WHAT IT TAKES TO INSPIRE: A COMPARATIVE ROLE MODEL ANALYSIS OF STUDENTS IN ENTREPRENEURSHIP AND TEACHING

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## ABSTRACT

*According to career education and learning research, role models can significantly influence others' decision-making processes and career choices. Such effects may be particularly relevant for potential entrepreneurs and future teachers, as much learning in these professions relies heavily on role models. Thus, educating students who desire to work in these fields might profit from a more role model-centered approach. However, research has shown that university educators rarely serve as role models, and few studies have investigated further into the subject of role models in higher education. Further, the generic discourse on role models has only examined differences according to sociocultural factors (e.g., gender or ethnicity), and these findings have not been empirically substantiated.*

*This article aims to fill this research gap by providing a deeper insight into students' role models. Through a questionnaire survey of 186 entrepreneurship students and student teachers in Germany, we sought to identify the relevance of having a profession-specific role model for those student groups as well as what constitutes this role model in terms of critical role model attributes. We found that it is more important to student teachers than to entrepreneurship students to have a profession-specific role model that actively works in the field. To both groups, personality-related attributes appeared to be more important than skills-related attributes, while the personality-related attributes revealed a lot about the students' image of their aspired profession. Based on those and further results, didactical implications for teaching at higher education institutions are discussed.*

**Keywords:** Role Models, Observational Learning, Higher Education, Entrepreneurship Education, Teacher Education.

## INTRODUCTION

Successful business ideas are not developed by algorithms (Lichtenstein et al., 2007; Liening et al., 2016). Therefore, entrepreneurs must learn key business skills from more experienced professionals. According to Blume (1971), the same holds true for teaching, as “*teachers teach the way they have been taught-not the way they have been taught to teach*”. Neither teachers nor entrepreneurs are born but made (Drucker, 1985; Faschingbauer & Grichnik, 2011; Martino, 2009). Thus, educating students who desire to be in these fields relies on experience-based learning and observational learning (Bandura, 1963; Bandura, 1977).

### Knowing in Action and Observational Learning in Higher Education

In the domains of entrepreneurship and teacher education, professional expertise tends to be acquired primarily through practical know-how, or knowing in action, as it is called by Schön (1987), rather than via research-based professional knowledge (Gruber & Mohe, 2012; Polanyi,

1962; Ryle, 2009; Schön, 1987). In domains where knowing in action must be developed, observational learning plays a crucial role. Hence, educational programs for future entrepreneurs and teachers may particularly benefit from offering observational learning to help students gain professional expertise instead of simply offering “*a large number of knowledge units*” (Gruber & Mohe, 2012). Studies in entrepreneurship education point out that practical experience units and mentoring are central to building know-how (Cope & Watts, 2000; Pittaway & Cope, 2007). The concept of observational learning, as initially defined by Bandura in his social cognitive learning theory (1963, 1977), is based on the idea that learning happens while observing the behavior of a (role) model. Through observational learning, we acquire cognitive skills and behavioral patterns from our role models; namely, role models can inspire us to act in a certain way, adapt a certain role or even change certain social role models (Jung, 1986; Nauta et al., 1998). Thus, the function of a role model goes beyond simply demonstrating and teaching a certain behavior.

### **Influence of Role Models and their Didactical Use**

Hence, higher education of students in the fields of entrepreneurship and teaching can profit from a more role model-centered approach, as role models have the power to provide learning, motivation, and inspiration (Gibson, 2004). However, in discussions on role models, the didactic function of role models often remains unaccented.

Many past studies have shown that role models can significantly influence others' decision-making processes and career choices (Shein & Chiou, 2011). Studies on career education and learning in connection with role models underline their central importance not only in career development and decision-making processes but also in the process of identity construction (Betz, 1994; Betz & Fitzgerald, 1987; Betz & Hackett, 1981; Morgenroth et al., 2015). Further, career education and learning research shows that role models can influence which norms, attitudes, and values the role model aspirant perceives as worthy of consideration, thus broadening the spectrum of career options. (Almquist & Angrist, 1971; Fouad & Kantamneni, 2008; Nauta et al., 1998).

Merton (1968) defines a role model as an object of identification that is not universal but limited to the single role of the “reference individual,” e.g., the reference individual being a teacher or an entrepreneur. This identification includes behaviors and values of the role model (Merton, 1968). Taking this idea further, Lutte (1970) differentiates role models by the categories of close, distant, and abstract role models, while Gibson (2003) clusters role models along the cognitive dimensions positive/negative and global/specific as well as the structural dimensions close/distant and up/across-down. Taking another approach, Bucher & Stelling (1977) make a different classification by referring to partial, charismatic, stage, option, and negative role models. Hereby, they distinguish role models on the basis of abilities, i.e., skills, and personality traits.

There is broad scientific consensus that the choice of a role model is determined by, first, the success of a person, i.e., his/her actions seem rewarding (Lockwood et al., 2002), second, the resemblance of this person to us (Gibson, 2003; Lockwood & Kunda, 1997; Marx & Ko, 2012), and, third, the belief that we have the relevant competences to do as this person does (Bandura, 1977; Lockwood et al., 2002; Gibson, 2003; Zimbardo & Gerrig, 1999). Similarly, Dinh & Püplichhuysen (2019) detected an interdependence between role models, the beliefs of the role model aspirants, and their intentions. This finding was theoretically derived from intersections of the Theory of Planned Behavior and Bandura's social cognitive learning theory.

Other studies reveal a link between role models and underrepresented, stigmatized, or negatively stereotyped groups: For example, Sally Ride, a popular American astrophysicist and astronaut, often serves as a role model for young girls who aspire to work in male-dominated domains (Bowman-Boyles, 2012; Edwards, 2014).

In other work on role models, Bosma et al. (2012) show that entrepreneurial role models are a source for building social capital. In addition, people look for role models who are similar to them in terms of gender, nationality, and economic position (Bosma et al., 2012). Women orient themselves more often than men to personal role models. Comparable results are shown by Karimi et al. (2012), who examine the influence of entrepreneurial role models and gender on the start-up intention and start-up behavior of students in Iran.

Studies on how teenagers and young adults in Germany choose careers unanimously suggest that parents have a strong and multi-layered influence on their children's career choices (Maschetzke, 2009; Beinke, 2000). Hereby, researchers stress that parents exert such influence in two major ways: one, through the advice they give and the expectations they have and, two, through the positive or negative perceptions that children themselves have of their parents' occupations (Kleffner et al., 1996).

### **Role Models of Entrepreneurs and Teachers**

In entrepreneurship, when asking entrepreneurs why they decided to enter the venturing process, they *"often answer that 'others' significantly influenced their decision"* (Abbasiachavari & Moritz, 2021); especially close role models (e.g., parents, other relatives and friends) are strong predictors for entrepreneurial activities (Chlosta et al., 2012; Lindquist et al., 2012; Van Auken et al., 2006). Bosma et al. (2011) found that entrepreneurial role models tend to be *"next door examples"* more often than *"icons,"* i.e., famous entrepreneurs like Steve Jobs or Mark Zuckerberg.

The same is true for the teaching profession. Next to social status and payment, the most influential factor for becoming a teacher is having a teacher as a parent. Further, identifying with a teacher role model highly influences one's own teaching style and motivation (Park & Byun, 2015; Timmermann, 2009). But, while parents tend to serve as role models throughout their children's professional spheres (Beinke, 2000; Bosma et al., 2011; Bricheno & Thornton, 2007; Singh et al., 2006), teachers are generally not seen as role models (Beinke, 2000; Bricheno & Thornton, 2007; Coto et al., 2019 Wiese & Freund, 2011). This is also true for teachers in higher education. In a study that questioned 138 female psychology students, Van Mens-Verhulst et al. (2015) found that only about 30% were inspired by professors and other faculty members, while over 70% reported to have role models in their family. A study by Timmermann (2009), which interviewed teachers in the Netherlands, concluded that while some teachers were inspired by their secondary school teachers, none could recall any role models from their teacher education.

### **RESEARCH INTEREST**

Why is it that university educators rarely serve as role models? Do they lack certain attributes relevant for being a role model? So far, only limited research exists on who serves as a role model as well as on the critical attributes that people look for in role models. Similarly, not much research has been done on determining how role models can be included into educational settings (Bosma et al., 2011). Furthermore, the generic discourse on role models only focuses on sociocultural factors (e.g., gender or ethnicity) and is empirically not substantiated (Martino, 2009).

Thus, our study aims to go beyond those aspects and find out what it takes to “*inspire*” students in entrepreneurship and teacher education. For this purpose, we surveyed 186 entrepreneurship students and student teachers at two large universities in northwestern Germany on their profession-specific role models. We begin this article with a review of the methodological approach for data generation. Then, we present and discuss our findings: First, we investigate the relevance of having a profession-specific role model to both groups of students. Second, we show what constitutes this role model, i.e., the attributes that make somebody a role model to students of entrepreneurship and student teachers. Based on the previously portrayed state of role model research, we distinguish between close and distant role models, taking into account the influence of the structural environment on an individual’s perception of a role model (Gibson, 2003), and we also consider abstract role models (Lutte, 1970). According to those dimensions, close role models are people who directly and frequently interact with the students, such as family, friends, supervisors, and - teachers. Distant role models, on the other hand, are people, the students “*do not interact with directly, but whom they nonetheless look to for exemplary attributes*” (Gibson, 2003). Those can be historic or public figures, mainly represented in the media. Abstract role models comprise generic information on the attributes a person must have to serve as a profession-specific role model.

Finally, we identify differences and similarities between the attributes desired for an entrepreneurial role model and those desired for a teaching role model. Based on these findings, in the final section of the paper we present implications for a more role model-centered approach to teaching at higher education institutions. Conclusively, we address limitations of the study and give suggestions for further research.

## METHOD

### Sampling Recruitment

The data were collected by an online questionnaire survey in the fall of 2019. Participants were 186 students of the business and economic faculties at two large universities in northwestern Germany. These universities not only have classical business and economics students, but they also have students training to be teachers whose majors are business administration and social sciences (including business administration and economics). The sample consisted of two groups: (1) undergraduate students of business and economics sciences, including specializations in logistics, IT, and industrial engineering, and (2) students training to be secondary school teachers of business, economics, or social sciences. In the first group, all students were participants of an elective entrepreneurship course that provides fundamental knowledge of entrepreneurial theories, models, and techniques. The second group consisted of participants of an obligatory course on economic topics in a didactical framework for student teachers at both universities.

<b>Table 1</b>		
<b>SAMPLE</b>		
	Entrepreneurship students (n=124)	Student teachers (n=62)
Age (mean)	22.41	26.86
Women	30%	37%
Men	61%	44%
no answer	9%	19%

Since the students of both groups made a deliberate decision to pursue the course or program of study, we assume that all these students have a personal interest in becoming either an entrepreneur or a teacher and, therefore, have a certain understanding and perception of these professions. Table 1 displays the demographics of the sample.

### Procedure and Survey

To identify the critical attributes that entrepreneurship students and student teachers expect of their role models, we asked participants to complete an online questionnaire that included closed- and open-ended questions. The first part of the questionnaire included sociodemographic information (e.g., gender, age) and questions about whether participants have entrepreneurs or teachers in their families. The second part of the questionnaire asked respondents about what constitutes a role model for them.

Questions asked about close, distant, and abstract role models, as suggested by Gibson (2003) and Lutte (1970). This approach enabled us to distinguish between role model attributes along those structural dimensions and derive implications based on those categories. First, respondents were asked to rate on a 7-point Likert scale how important it is for them (1) to have a role model in general and (2) to have a professional role model (closed questions). Then we asked respondents to specify who these role models are and what attributes characterize them (open questions).

### Data Analysis

The students' answers to the open questions on role model attributes were analyzed by inductive coding in two coding cycles as suggested by Miles et al. (2013). In the first cycle we identified similar answers, and in the second cycle we grouped these into broader categories, i.e., attributes. Both researchers first conducted the cycles individually. Afterward, the results were compared and reanalyzed. Based on role model research Bucher & Stelling (1977), the attributes derived from the students' answers were furthermore grouped according to whether they represent personality traits or skills. We then computed the percentage of students referring to each attribute coded for close, distant, and abstract role model attributes. The students' answers on the closed questions were analyzed with SPSS (Table 2). The results of our data analysis are presented hereafter.

## RESULTS

### The Relevance of Having Role Models

Our results show that both groups of students considered that having a role model, in general, is important (Table 2). Compared to entrepreneurship students, student teachers thought it was slightly more important to have a professional role model, especially one that actively works in the profession. Around two-thirds of both groups of students were inspired by a close role model. Furthermore, nearly half of the participants from both groups had somebody in their close social environment who works in their chosen profession (entrepreneur or teacher). We also tested the correlation between the significance of having a role model in general and the existence of a close role model; the results show a positive correlation. Moreover, we asked the students whether their close role models had an influence on their career education and learning, i.e., their intention to become an entrepreneur or teacher. As displayed in Table 2, 51% of entrepreneurship students and 58% student teachers answered yes to this question.

If we look more deeply at close role models, students mainly saw their parents as role models; whereas entrepreneurship students tended to choose their fathers as role models, student teachers tended to choose their mothers (Table 3). Teachers and educators, on the other hand, were only “*second choice*” for both entrepreneurship students and student teachers (Table 3), while student teachers tended to choose teachers and university educators as role models much more frequently (30%) than entrepreneurship students (5%). Notably, in this category entrepreneurship students almost exclusively named university educators (professors), while student teachers also saw their schoolteachers as role models.

<b>Table 2</b>		
<b>RELEVANCE OF ROLE MODELS</b>		
	Entrepreneurship students <sup>+++</sup>	Student teachers <sup>++</sup>
Relevance of having a role model in general (A) <sup>+</sup>	Mean: 3.21 (n = 09)	Mean: 3.57 (n = 47)
Relevance of having a profession- specific role model (B) <sup>+</sup>	Mean: 3.05 (n = 109)	Mean: 3.60 (n = 47)
Existence of a close role model (C)	Yes: 60% (n = 111)	Yes: 70% (n = 48)
Teacher/Entrepreneur in the close social environment (D)	Yes: 49% (n = 114)	Yes: 50% (n = 50)
Influence of the close role model on one's career decision (E)	Yes: 51% (n=83)	Yes: 58% (n=41)
Correlation between A and C	Pearson Chi square: 32,551***	Pearson Chi square: 23,718**
Correlation between D and C	Cramér's V: 0.156	Cramér's V: 0.195
Correlation between D and E	Cramér's V: 0.349***	Cramér's V: 0.350
Correlation between D and B	Pearson Chi square: 15.866*	Pearson Chi square: 5.067
+ 7-point Likert scale, ++ Sample size does not add up to 62 due to missing responses, +++ Sample size does not add up to 124 due to missing responses, * Significant at $p < .05$ , ** Significant at $p < .01$ , *** Significant at $p < .001$		

Beyond teachers or university educators, the third most important close role models for entrepreneurship students were friends, while this was true for only a minority of student teachers (5%).

<b>Table 3</b>		
<b>CLOSE ROLE MODELS</b>		
	Entrepreneurship students n = 111** (Percentage (N <sup>a</sup> ))	Student teachers n = 47* (Percentage (N <sup>a</sup> ))
Yes	60%	70%
No	40%	30%
Father	37%	30%
Mother	15%	32%
Friend	11%	6%
Teacher/Professor	5%	30%
* Sample size does not add up to 62 due to missing responses, ** Sample size does not add up to 124 due to missing responses, <sup>a</sup> Based on multiple responses		

Furthermore, we asked students to name public national and international figures, represented in the media, who represent role models to them (distant role models). As displayed

in Table 4, 76% of student teachers and 93% of entrepreneurship students claimed to have a distant role model. While entrepreneurship students were mainly inspired by well-known entrepreneurs such as Elon Musk, Steve Jobs, and Bill Gates, student teachers tended toward moral leaders like Martin Luther King Jr., Greta Thunberg, or the pope or politicians like Barack and Michelle Obama on the international level and Angela Merkel on the national level.

Prominent role models, especially nationally, also included football players and other sportsmen like Dirk Nowitzki. Interestingly, even student teachers were inspired by internationally known entrepreneurs like Elon Musk and Mark Zuckerberg.

Table 4 DISTANT ROLE MODELS			
Entrepreneurship students n = 111** (Percentage (N <sup>a</sup> ))		Student teachers n = 47* (Percentage (N <sup>a</sup> ))	
Distant role model (international)			
Yes	93%	Yes	76%
No	7%	No	24%
Elon Musk	29%	Historical Figure/ Moral Leader (e.g., Dalai Lama, the Pope, Nelson Mandela)	17%
Steve Jobs	21%	Barack / Michelle Obama	13%
Bill Gates	10%	International Entrepreneur (e.g., ElonMusk, Steve Jobs, Bill Gates)	11%
Distant role model (national)			
Yes	70%	Yes	70%
No	30%	No	30%
Frank Thelen	7%	Football Player (and other sportsmen)	22%
Albrecht Brothers (ALDI)	6%	Angela Merkel (and other German politicians)	17%
FerdinandPorsche	4%	Heidi Klum	4%
* Sample size does not add up to 62 due to missing responses, ** Sample size does not add up to 124 due to missing responses, <sup>a</sup> Based on multiple responses			

Table 5 CLOSE ROLE MODEL ATTRIBUTES <sup>b</sup> (PERCENTAGE BY RESPONDENTS, MULTIPLE ANSWERS POSSIBLE)			
EntrepreneurshipStudents n =111** Percentage (N <sup>a</sup> )		Student teachers n = 47* Percentage (N <sup>a</sup> )	
Personality traits			
Success	27%	Social skills (humor, openness,patience, strength) & empathy	36%
Ambition & persistence	15%	Ambition & persistence	28%
Social skills & empathy	8%	Commitment & engagement	11%
Independence	8%	Success	11%
Intelligence	6%		
Risk-taking propensity/courage	5%		
Skills			
Effective management (organizational skills) and leadership	5%	Didactical skills (delivering complex content/student orientation)	32%
Knowledge and expertise/experience	9%	Knowledge and expertise	8%
* Sample size does not add up to 62 due to missing responses, ** Sample size does not add up to 124 due to missing responses, <sup>a</sup> Based on multiple responses , <sup>b</sup> Mentioned more than once			

### Critical Attributes of Close Role Models

When looking at the named attributes, both groups of students unanimously saw the personality traits ambition and persistence as crucial for their choice of a close role model (Table 5). While the most important personality trait for entrepreneurship students was success, for student teachers the most important were social skills (e.g., humor, openness, patience, strength) and empathy. Student teachers seemed to rate the attributes commitment and engagement as being as important as success, while these attributes were not mentioned by entrepreneurship students.

On the other hand, entrepreneurship students named the attributes independence, intelligence, and risk-taking propensity/courage to be relevant, but these attributes were not mentioned by student teachers. Furthermore, student teachers also named didactical skills as being obviously significant for the choice of a close teaching role model (32%), whereas knowledge and expertise were less relevant (8%). For entrepreneurship students, personality traits tended to clearly dominate over skills, as only a minority of respondents named skills (e.g., effective management (organizational skills) and leadership (5%) and knowledge, expertise, and experience (9%)) as attributes of their close role models.

### Critical Attributes of Distant Role Models

Interestingly, the situation changes when we look at the attributes students consider critical for their choice of an international or national public figure as a role model. Here, the attributes ambition and persistence were still rated equally high by both groups of students (37% of respondents in both groups, Table 6). While for entrepreneurship students, success is the number one attribute of both a close and a distant role model, for student teachers this attribute is more crucial when choosing a distant role model. Hence, success (33%) took third place on the list of distant role models for student teachers, while it only ranked number four on the list of close role model attributes, with 11% Table 5 and Table 6.

Table 6 DISTANT ROLE MODEL ATTRIBUTES <sup>b</sup> (PERCENTAGE BY RESPONDENTS, MULTIPLE ANSWERS POSSIBLE)			
Entrepreneurship students n = 108** Percentage (N <sup>a</sup> )		Student teachers n = 46* Percentage (N <sup>a</sup> )	
Personality traits			
Success	44%	Commitment & engagement	41%
Creativity & innovation	40%	Ambition & persistence	37%
Ambition & persistence	37%	Success	33%
Commitment & engagement	13%	Social skills	26%
Risk-taking propensity/courage	7%	(humor, openness, patience, strength)	
Social skills & empathy	6%	& empathy	
Independence	4%		
Intelligence	4%		
Skills			
Effective management (organizational skills) and leadership	6%	Way of working/professionality	9%
Knowledge & expertise/experience	6%	Knowledge & expertise	7%
Work-life balance	8%		
* Sample size does not add up to 62 due to missing responses, ** Sample size does not add up to 124 due to missing responses. <sup>a</sup> Based on multiple responses. <sup>b</sup> Mentioned more than once			

For student teachers, commitment and engagement ranked first place (named by 41% of



respondents), which is in line with the many moral leaders student teachers named as role models. Meanwhile, for entrepreneurship students, commitment and engagement only ranked fourth on the list for distant role models. While student teachers named the attribute social skills and empathy (26%) nearly as often as success (33%) for being important in distant role models, entrepreneurship students considered social skills and empathy a far less important (6%). Furthermore, concerning distant role models, skills seemed to be far less important than personality traits, both for entrepreneurship students and student teachers alike.

### Critical Attributes of Abstract Role Models

Because most distant role models of entrepreneurship students were entrepreneurs like Elon Musk or Steve Jobs, the distant and abstract, i.e., profession-specific role model attributes named by this group were quite congruent. As teachers are usually not figures of public interest and, therefore, not represented in the media, the attributes of student teachers' distant role models and their profession-specific role model attributes should not coincide. Still, for the sample of this study some overlaps exist, such as for the attributes commitment and engagement, social skills and empathy, as well as ambition and persistence (see Table 6 and 7). For student teachers, social skills and empathy were the profession-specific role model attributes most frequently quoted (93%), which is congruent with the student teachers' ranking of close role model attributes (36%).

Table 7 ABSTRACT ROLE MODEL ATTRIBUTES <sup>b</sup> (PERCENTAGE BY RESPONDENTS, MULTIPLE ANSWERS POSSIBLE)			
Entrepreneurship students n = 106** Percentage (N <sup>a</sup> )		Student teachers n = 45* Percentage (N <sup>a</sup> )	
Personality traits			
Ambition & persistence(egocentrism)	69%	Social skills & empathy (e.g.,patience, openness, humor, fairness)	93%
Social skills & empathy (e.g., openness, strength,responsibility)	56%		
Creativity &innovation	40%		
Risk-taking propensity/courage	29%		
Success (e.g., run a businesssuccessfully)	20%		
Intelligence	8%	Authority & austerity	39%
Independence	8%	Authenticity	18%
Commitment &engagement	7%	Ambition & persistence	13%
		Commitment &engagement	8%
Skills			
Effective management & leadership (e.g., ability to motivate employees, organizational skills, team leader)	58%	Didactical skills (e.g., student orientation, explaining complexcontent, ability to motivate students)	62%
Knowledge & expertise/experience (e.g., entrepreneurial experience)	26%	Knowledge & expertise	40%
* Sample size does not add up to 62 due to missing responses,** Sample size does not add up to 124 due to missing responses, <sup>a</sup> Based on multiple responses , <sup>b</sup> Mentioned more than once			

For entrepreneurship students, ambition and persistence led the list of abstract role model attributes, which is quite congruent with both their close and distant role model attributes (ranked number two and three, respectively). Interestingly, entrepreneurship students considered social skills (specifically, openness, strength,responsibility, communication

skills, and down-to-earth attitude) and empathy to be critical profession-specific attributes (56%, Table 7), but only 8% of respondents mentioned this attribute for close role models and only 6% for distant role models Table 5 and Table 6.

Different from the results found for close and distant role model attributes, for profession-specific abstract role model attributes, students put much more weight on skills. Overall, 62% of student teachers considered didactical skills to be relevant, and 58% of entrepreneurship students named effective management and leadership skills (Table 7). By contrast, only 32% of student teachers named skill-related attributes as important for close role models, and only 9% named them as important for distant role models (way of working/professionality, Table 6). For entrepreneurship students, only 5% considered skill-related attributes important for close role models, and only 6% considered them important for distant role models.

Overall, 40% of student teachers and 26% of entrepreneurship students considered knowledge and expertise as critical profession-specific role model attributes, while this was only true for 8% (student teachers) and 9% (entrepreneurship students) of respondents regarding close role models and for 7% (student teachers) and 6% (entrepreneurship students) of respondents regarding distant role models.

## DISCUSSION

The results of our study reveal the importance of role models and the attributes entrepreneurship students and student teachers expect from a role model. The findings show that both groups of students consider it important, in general, to have a role model.

The analysis revealed that the majority of student teachers (70%) and entrepreneurship students (60%) said they had a close role model. Further, when describing the influence of this close role model on their professional decisions, more than half of both groups of respondents stated that their close role model influenced their decision to become a teacher or an entrepreneur. This corresponds with the results of other studies that investigated the interplay between having a role model and career intention and the construction of developing a professional identity (Adejare, 2018; Abbasianchavari & Moritz, 2021). It clearly shows the importance of close role models in career orientation and learning.

This insight is further supported by the congruency that could be found in this study between the attributes that students evaluated as critical for their aspired profession (abstract/profession-specific role model attributes) and for their close role models. Furthermore, the attributes named most frequently give insight into the students' perception of their aspired profession: While student teachers ranked social skills and empathy as most important, entrepreneurship students ranked ambition and persistence as the most critical role model attribute.

Close role models to the participants of our study were particularly parents: While fathers were predominant role models for entrepreneurship students, mothers were more often mentioned as role models for student teachers. One explanation may be the different representation of genders in these professions. More women than men take part in teaching (Miller & Chamberlin, 2000), while men are more strongly represented in entrepreneurship (Verheul et al., 2006). And, as previous research results show, role model aspirants tend to choose role models of the same gender, nationality, or economical background (Bosma et al., 2012; Karimi et al., 2012; Mohr & Ittel, 2014).

Teachers and university educators (professors), on the other hand, were only “second

choice” for student teachers, while they were even less important to entrepreneurship students. As university educators are people who directly and frequently interact with their students and, therefore, clearly could be close role models (Gibson 2003), they mostly do not fulfill this function.

Results also revealed that student teachers placed more importance (compared to entrepreneurship students) on having a profession-specific role model as well as on the idea that this role model should be actively working in the profession.

Despite the importance of close role models to our sample, even more students claimed to have a distant role model. This is a new result so far not suggested by previous research on role models and career choices, as parents have generally been found to be the major role model in their children’s career education and learning (Beinke, 2000; Bosma et al., 2011; Bricheno & Thornton, 2007; Maschetzke, 2009; Park & Byun, 2015; Timmermann, 2009). Our findings show that public figures like Elon Musk and Steve Jobs are often considered to be distant role models – interestingly, not only by entrepreneurship students but also by student teachers. This makes sense, as both groups of students see the media portrayals of entrepreneurs as heroes and jesters (Anderson & Warren, 2011). While amidst the group of entrepreneurship students the attributes of distant role models were mostly congruent with the profession-specific role models (ambition and persistence, creativity and innovation), this was less the case for student teachers, who less frequently mentioned these attributes (ambition and persistence, social skills and empathy). This finding is not surprising, as teachers are usually not figures of public interest and, therefore, are not represented in the media.

A further intriguing result relates to the dominance of personality-related attributes over skills-related attributes. While at least 32% of student teachers emphasized that their close role models should have didactical skills, the overall focus for both groups was on personality. However, for our sample, the dominance of personality-related attributes over skills changes slightly when considering abstract, profession-specific role model attributes. Personality traits are still dominant, but skills, such as student orientation or effective management and leadership, are nearly as important.

We believe that, in contrast to when students consider an abstract role model, their existing relationships or bonds with a close role model and the familiarity they have with distant role models via media coverage prevent students from expecting close and distant role models to be highly skilled and encourage them to focus on personality traits.

## IMPLICATIONS FOR EDUCATION AND EDUCATORS

The results of this study suggest that close and professional role model attributes are often congruent. While university educators, as people who directly and frequently interact with their students, clearly could be close role models, they are rarely perceived as such. The discussed findings suggest that this might be ascribed to a lack of role model attributes incorporated by the educator. While skills are most likely not the problem, the study revealed the high importance of certain personality traits to fulfill a role model function for students. Student teachers named the personality traits social skills and empathy, ambition and persistence, and commitment and engagement as crucial for their choice of a role model. Consequently, those attributes should be represented by university educators involved in teacher education, especially because university educators are teachers themselves (Blume, 1971; Lunenberg et al., 2007). The same is true for university educators in entrepreneurship education, as they should also embody some sort of entrepreneurial mindset, e.g., the personality traits ambition and persistence as well

as creativity and innovation, which were mentioned by the participants of this study. These aspects should be considered in the design of training courses for university educators in the disciplines of entrepreneurship and teacher education.

The results of this study also hold some didactical implications for including role models in educational programs: The findings show that distant role models are as important if not more important than close role models. This was especially apparent for entrepreneurship students, who nearly unanimously said that an international public figure was their role model. Due to the noticeably strong influence of public figures on the mindsets of entrepreneurship students and student teachers, university teaching programs may benefit from including distant role models by means of multimedia (Fellnhöfer, 2015). Nowadays, since using social media is a key didactical instrument that can be used to reach students (Manca & Ranieri, 2016), we encourage educators to carefully select which practical examples to use in classrooms, since exposing students to certain public figures can impact their perception and choice of a role model. In a similar context, our results also provide practical implications for university educators in terms of the attributes they should consider when including role models in the learning process, e.g., when choosing guest speakers or matching the right mentors and mentees in classrooms.

## LIMITATIONS AND IMPLICATIONS FOR FURTHER RESEARCH

This study strived to identify relevant role model attributes with the purpose of providing didactical implications for higher education. In this context, it is necessary to mention that the list of attributes for entrepreneurial and teacher role models we identified here should not be considered exhaustive. Therefore, we highly recommend future studies to replicate our approach, i.e., by extending the investigation of role model attributes onto other forms of learning arrangements. For instance, Van Mens-Verhulst et al. (2015) found that attributes people expect of their (educational) role models depend strongly on the educational context, e.g., lectures for a large audience as opposed to small group seminars. Thus, we assume that different types of learning arrangements require educators to demonstrate different role model attributes. Relating to this, we also suggest considering students' perceptions of professions. While most studies have focused on teachers' perspectives toward certain subjects, students' perceptions of the teaching profession have received little attention (Pavlina et al., 2011).

Furthermore, since our study chose a rather qualitative explorative approach, there is a limitation regarding the generalization of the results. The identified attributes provide implications for future studies to quantitatively approach the construct role model by testing the legitimization of the attributes in different learning settings of entrepreneurship education and teacher education.

Additionally, our findings suggesting interplay between having a role model and the intention to pursue the career options (e.g., entrepreneur, teacher) should be cautiously evaluated, as our study does not provide causation or any related effects of this relationship. We strongly suggest that the relationship between these two constructs be investigated through experimental design or intervention studies. Furthermore, our study does not address whether the students we surveyed would assign the attributes that they consider to be relevant for role models to themselves. As this, according to role model research (Gibson, 2003; Lockwood & Kunda, 1997; Marx & Ko, 2012), might be a relevant factor, we recommend investigating the extent to which students see these attributes in themselves, as this should enable one to identify whether shared values and personality are responsible for students' decisions to choose a role model, as the literature suggests that having a shared identity increases sympathy toward another (Stevens

et al., 2019; Bosma et al., 2012; Karimi et al., 2012).

## CONCLUSION

Research results suggest that role models have an empowering influence on aspiring professionals. However, the key components that define a role model are not well understood. Our study strived to explore the concept of role models within the entrepreneurship and the teaching professions. Through the perspective of aspiring entrepreneurs and teachers, we sought to identify the relevance of having a profession-specific role model as well as to identify what constitutes this role model in terms of the critical attributes. Our results show that, generally, having a role model is highly important for students and that most students were influenced by somebody from their close social environment in their career choice, i.e., close and professional role models were equal. Furthermore, students from both disciplines evaluated personality-related attributes as being more important in a role model than skills-related attributes. As those personality-related attributes revealed a lot about the students' image of their aspired profession, they should be represented by university educators. Yet, skills should not be underestimated, as they were mentioned more frequently in regard to the attributes a person must have to serve as a profession-specific role model.

Interestingly, the surveyed students indicated that public figures (distant role models) play a much more important role in their lives than suggested by research on role models and career education and learning.

This study provides implications for future empirical studies (e.g., experimental design, intervention studies) as well as didactical implications for higher education, in that, e.g., higher education programs could consider students' expected attributes of role models when selecting visiting professionals and speakers and when matching role models to aspiring professionals.

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