



Entrepreneurial Attitude Among Doctoral Students: An Empirical Study

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Introduction and Motivation

There are quite a number of studies on the entrepreneurial orientation and attitudes towards founding new business among university students. Most of these studies, however, focus on students in bachelor and master programs and often neglect doctoral students – even though these students are an important student group in higher education and have the potential to generate excellent business ideas, due to the fact that they spend a significant amount of time on in-depth analysis of a specific topic.

In addressing this need for more information about the attitudes towards entrepreneurship among doctoral students, we analyzed the responses of PhD-students to a questionnaire that had been sent to approximately a 1,000 doctoral students enrolled at the University of Osnabrueck. Based on the sample of 251 responses, the study explores these students' entrepreneurial orientation and attitudes towards founding their own new business and compares the results with those of studies with a focus on other student groups.

The results of this study will be helpful for universities in getting a realistic view of the present situation of entrepreneurial attitude of doctoral students. This could open up a new perspective and a starting point to improve the entrepreneurship support of the universities. Based on our results the efforts of the universities to encourage their high qualified doctoral students to further develop their business ideas could be advanced. This would lead to carry out more business ideas on a high knowledge level, create more successful entrepreneurs, and drive the economy.

Purposes

1. Are doctoral students interested in founding their own businesses?
2. Are doctoral students more interested in founding their own businesses than bachelor/master students are?
3. Have more doctoral students or more bachelor/master students already founded their own businesses?
4. Are male doctoral students more interested than female students in founding their own businesses?
5. Have more male or more female doctoral students already founded their own businesses?
6. What type of entrepreneurship assistance do doctoral students expect from their university?
7. Do we need gender-related entrepreneurship support?

Materials and Methods

study design	questionnaire
target group	doctoral students at the Osnabrueck University
gross sample	1,121
undeliverable questionnaires	120
net sample	1,001
Response rate	25.07 % (251 doctoral students)
Date of the study	November 2010

Results

The majority of doctoral students are interested in starting their own businesses.

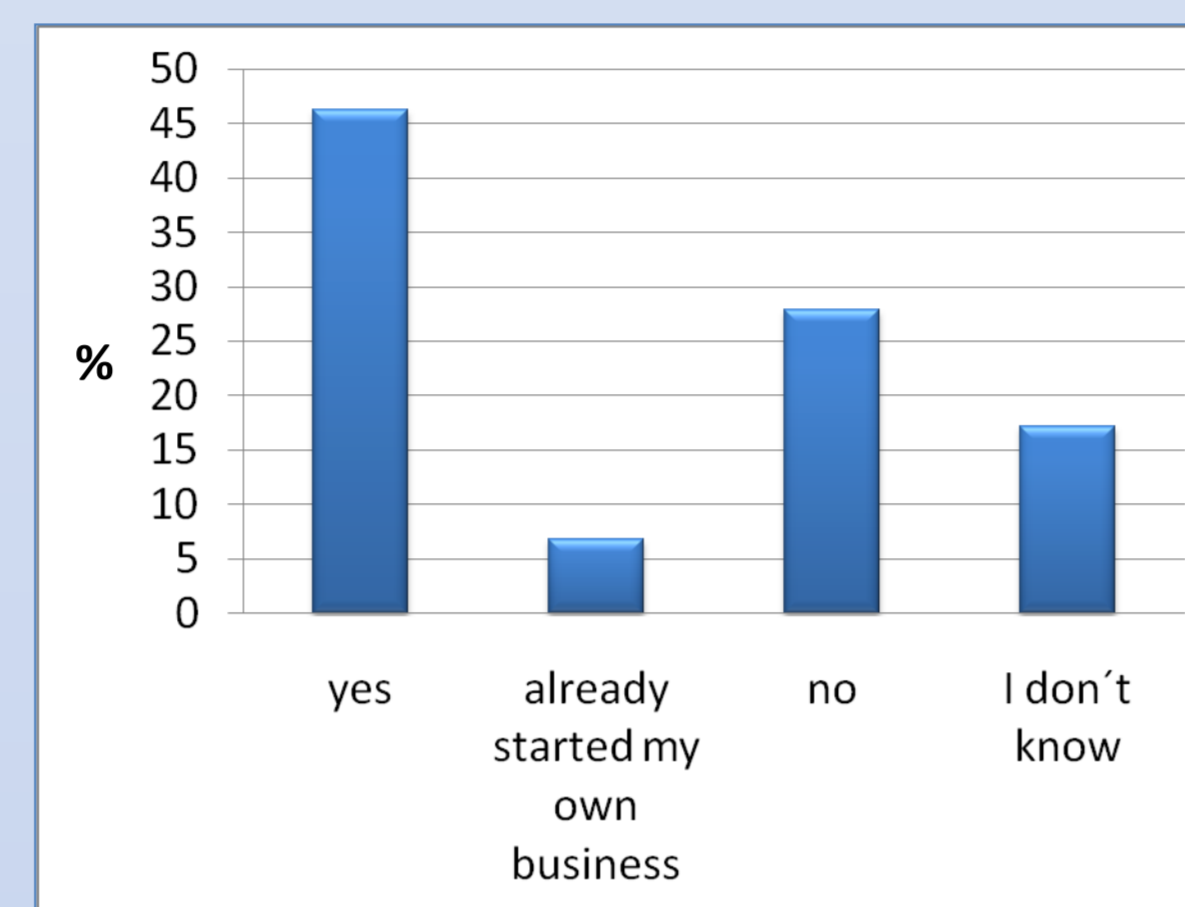


Figure 1: "Could you generally imagine yourself to start your own business?"

Bachelor and master students versus doctoral students
A higher number of doctoral students are interested in founding their own business than is the case amongst other student groups.

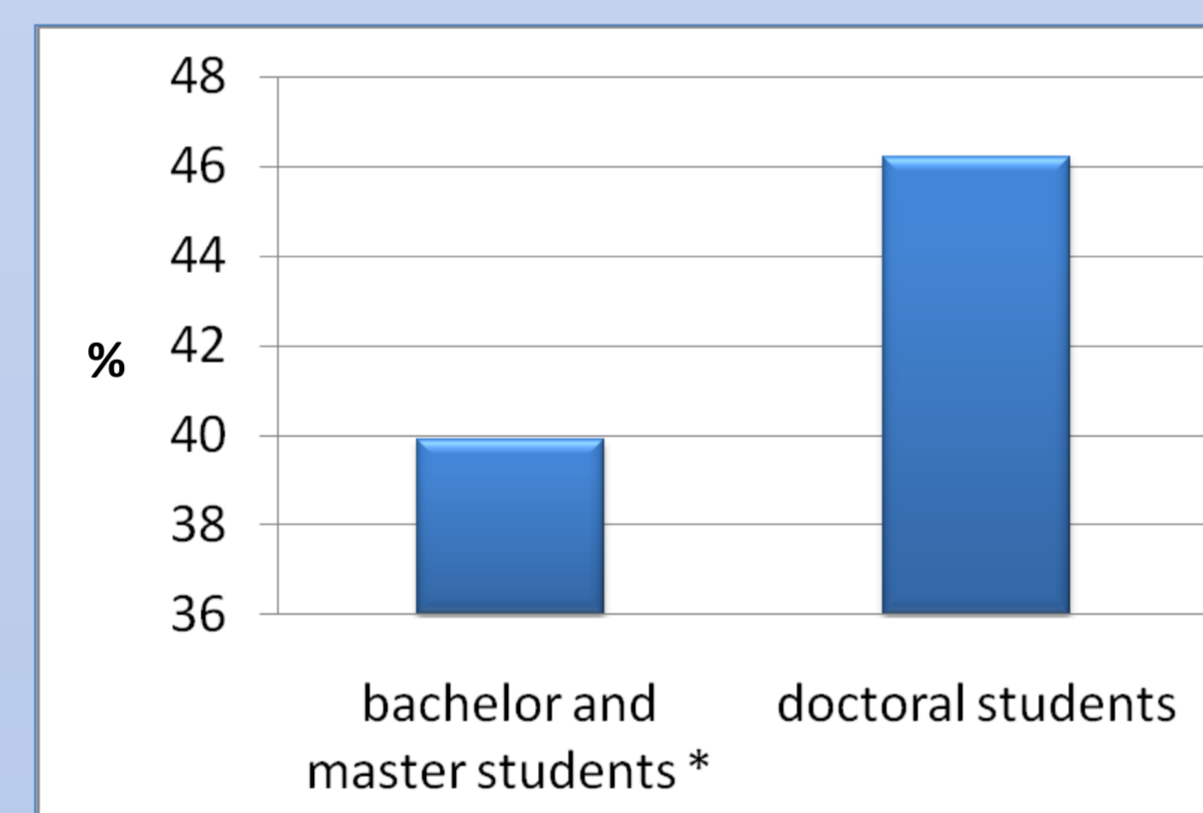


Figure 2: Students who are generally interested in founding a business: Bachelor and master students versus doctoral students

* Bundesministerium fuer Bildung und Forschung, „Studierende und Selbststaendigkeit“, EXIST-study 2002, page 18.

The number of doctoral students who already had started a business is much higher than amongst other student groups.

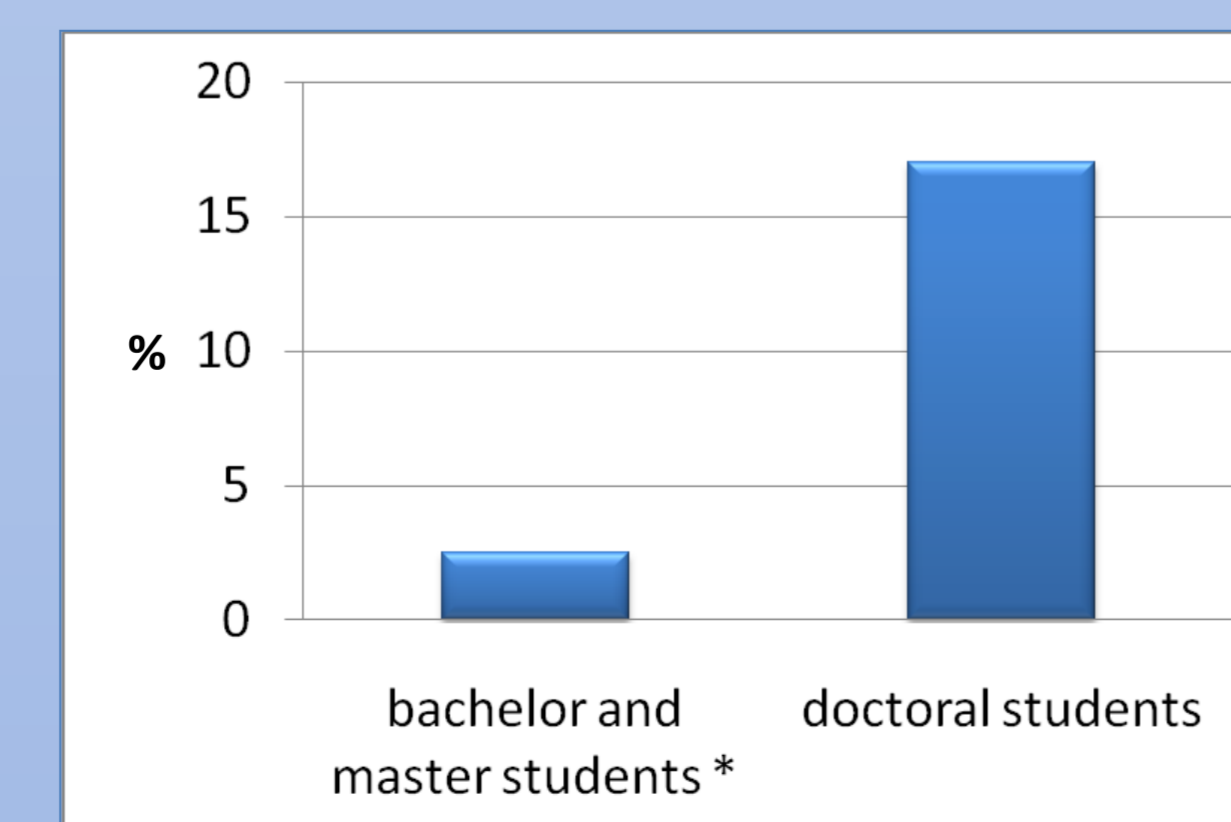


Figure 3: Students who already had started a business: Bachelor and master students versus doctoral students

* Bundesministerium fuer Bildung und Forschung, „Studierende und Selbststaendigkeit“, EXIST-study 2002, page 18.

Female versus male doctoral students: Gender-related patterns
Female doctoral students have a strong interest in starting a business.

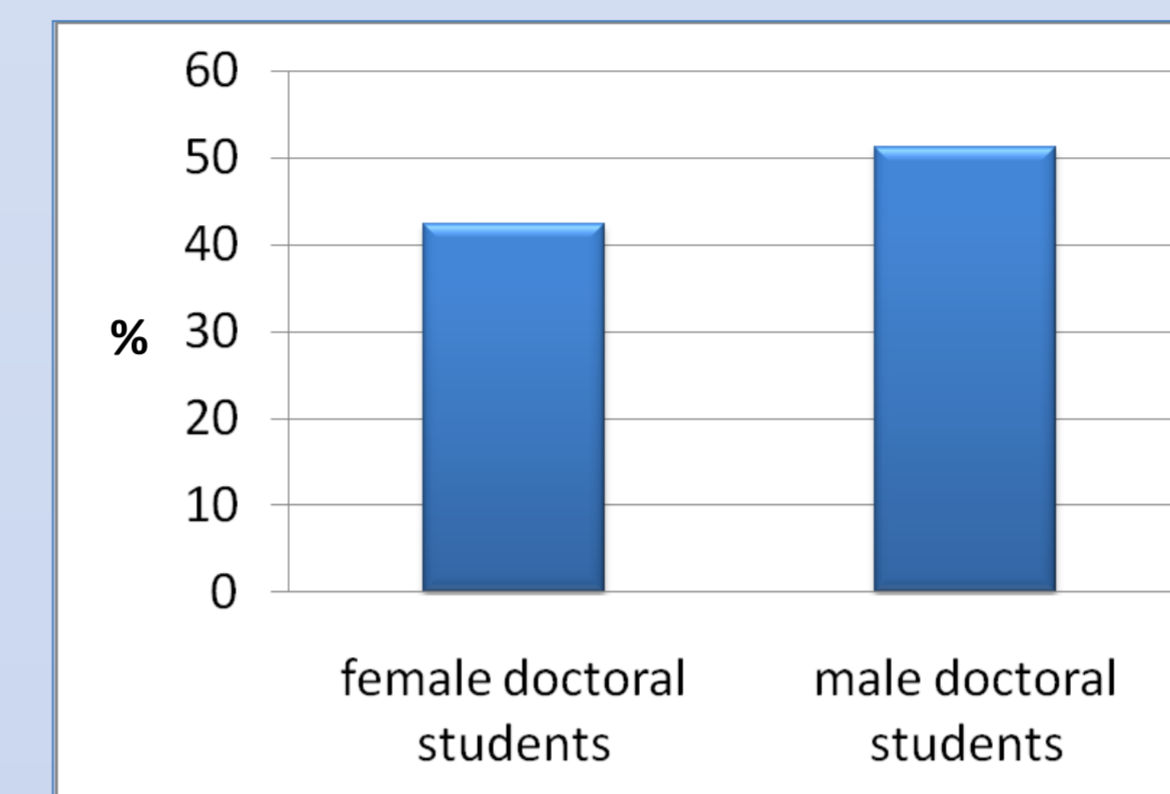


Figure 4: Doctoral students who are generally interested in founding a business: female versus male doctoral students

Female doctoral students are underrepresented as business founders.

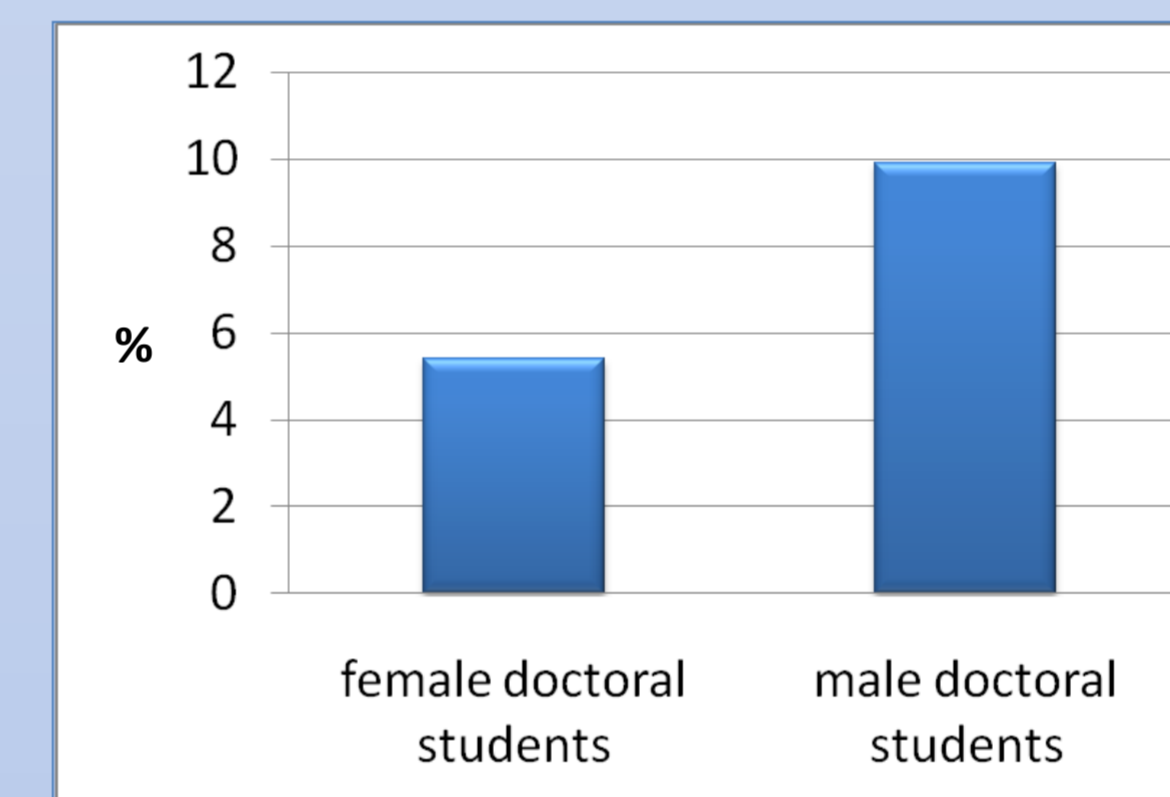


Figure 5: Doctoral students who already had started a business: female versus male doctoral students

Doctoral students have particularly clear – but gender-related – ideas in terms of the type of assistance they expect from their university.

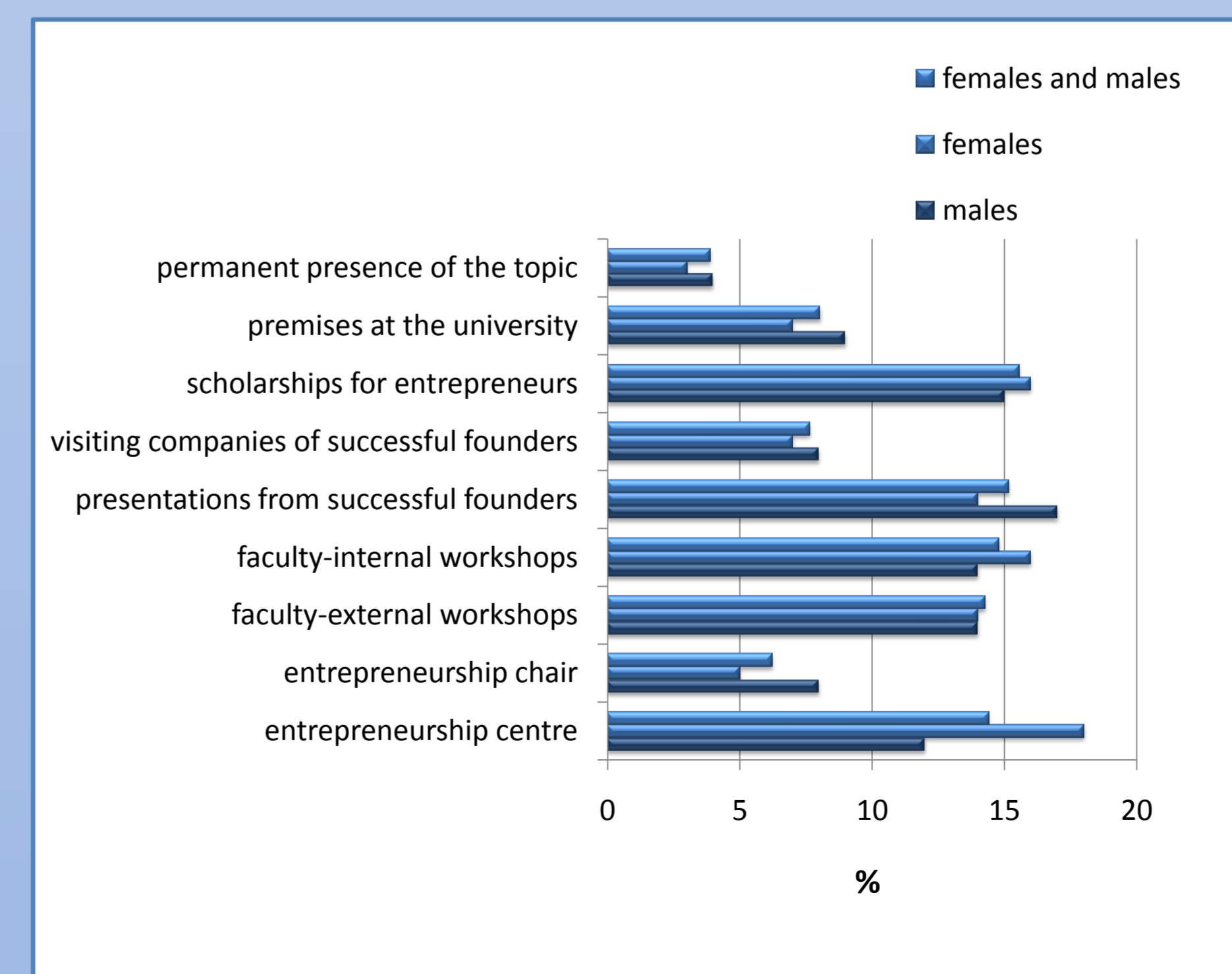


Figure 6: Type of entrepreneurship-assistance doctoral students expect from their university: females and males; female versus male doctoral students

Conclusions

1. Most doctoral students are interested in starting their own businesses.

Bachelor and master students versus doctoral students

2. Doctoral students are more interested in founding a business than bachelor/master students.
3. More doctoral students than bachelor/master students have already founded a business.

Female versus male doctoral students: Gender-related patterns

4. Female doctoral students have approximately the same strong interest towards starting a business than male doctoral students.
5. But: More male doctoral students have already founded a business than female doctoral students.

➤ Female doctoral students are underrepresented as business founders.

➤ Female doctoral students need to receive special encouragement and support from universities in becoming entrepreneurs.

starting point
to improve entrepreneurship support

Entrepreneurship support at the university

6. Type of entrepreneurship-assistance doctoral students expect from their university:

- a) scholarships for young entrepreneurs
- b) presentations of successful founders
- c) faculty-internal workshops
- d) internal entrepreneurship centre

7. We need a gender-related entrepreneurship support:

➤ females expect an advisor

➤ males expect role models

starting point
to improve entrepreneurship support

females	Males
a) internal entrepreneurship centre	1. presentations from successful founders
a) scholarships for young entrepreneurs	1. scholarships for young entrepreneurs
a) faculty-internal workshops	1. visit firms of successful founders
a) presentations from successful founders	1. faculty-external/internal workshops

Discussion and Outlook

➤ Should we really have a gender-related entrepreneurship support at the university?

➤ What are the reasons for the gender-related differences?

Are our results country-related?

➤ Further research study: international comparison

References

• Bundesministerium fuer Bildung und Forschung, „Studierende und Selbststaendigkeit“, EXIST-study 2002.

For further information

More information on this and related projects can be obtained at:

Technology Transfer Office Universities Osnabrueck

<http://www.wt-os.de/tks>