

The Influence of Course Types on Study Duration: An Analysis of Module Types, Course Formats, and Examination Forms

Key Contribution

The results of the study show that institutional curricular conditions can lead to delays in the progress and duration of studies, regardless of student performance. Different types of modules lead to different patterns of study, depending on how they are embedded in framework courses and how they function in the model curriculum. Courses with more interactive elements, such as seminars and project work, are associated with earlier registration and participation in examinations, leading to less study time delay. In addition, the results of the study suggest that making registration and participation in examinations more compulsory could help to reduce the number of long-term students. Further research is needed to assess the impact of these changes on educational goals and student outcomes. Overall, this research provides an important basis for institutions to consider how appropriately designed module types and courses and formats can support timely completion.

The Importance of Institutional Rules

Institutional rules play an important role in shaping student behaviour and progression in higher education (Vossensteyn et al., 2015; Kleimann, 2019). They are not only based on examination regulations and rules of the country, state or higher education institution, but also include decisions made at the level of professors and institutes regarding the regulation of teaching and learning, and can have a profound impact on curriculum and programme design (Schomburg et al., 2012). If well designed, these regulations can be effective in mitigating delays in study and helping students to complete their studies successfully and on time (Jansen, 2004; Prince, 2004). Conversely, poorly designed regulations can inadvertently contribute to prolonged study periods and hinder the achievement of educational goals. However, there is still limited empirical evidence on how different types of courses and module designs can influence academic progress.

Data and Methods

The data for this study are administrative records of two cohorts of social science bachelor programmes, "SoSci A" (N=282) and "SoSci B" (N=328), over eight semesters at a large German university. Both programmes allow students to register for exams manually, with a flexible option to postpone exams even after registration. The programmes "SoSci A" and "SoSci B" have comparable introductory, statistics and bachelor thesis modules with the same course formats and examination forms, with the exception of the statistics module. Although students in both programmes have to attend lectures given by the same lecturer, in "SoSci A" it consists only of lectures and an exam, while in "SoSci B" it includes optional lectures,

seminars and exercises and is assessed by a project report. The programmes also differ in that 'SoWi A' has two examination periods per semester, while 'SoWi B' has only one examination period per semester. Mean comparisons were made to analyse differences in initial enrolment and initial participation in the modules, using the recommended semester of the model curriculum as a reference point for centering. The specialisation modules in "SoSci A" offer students a choice between written assignments and oral examinations. Differences between first-time registration and participation by examination form were also analysed using mean comparisons.

Study delays by module type and course format

The results show systematic differences in study behaviour between the module types in both "SoSci A" and "SoSci B" at first registration and first participation. In "SoSci A", the first participation in exams takes place significantly ($p=0.003$) later than in the sample study plan than in the introductory module, both in the statistics module ($p=0.002$) and in the bachelor thesis module. The average delay is 0.52 semesters more for the statistics module and 0.36 semesters more for the dissertation module than for the introductory module. With regard to the delay in first-time participation in examinations, the first-time registration for the bachelor thesis module is on average significantly more delayed for "SoSci B" than for the other two module types. This means that participation is delayed by 0.61 semesters compared to the introductory module ($p=0.000$) and by 0.57 semesters compared to the statistics module ($p=0.000$). The bachelor thesis modules show a smaller range and fewer outliers, but a higher dispersion around the mean. This could be due to the lower embedding in courses, students use greater temporal flexibility with the bachelor thesis, but that the delay always remains within a predictable range. The significant differences between the delays in the statistics module in "SoSci A" and "SoSci B" show that, with the same subject content, a more interactive course in the form of group work with the examination form of a project report leads to students registering for and taking examinations earlier than in the course type of lecture with a final examination. This is probably due to the high degree of initiative and self-organisation required of students, as well as their involvement in long-term learning and working groups.

Figure 1: Study delays for "SoSci A" and "SoSci B" by module type

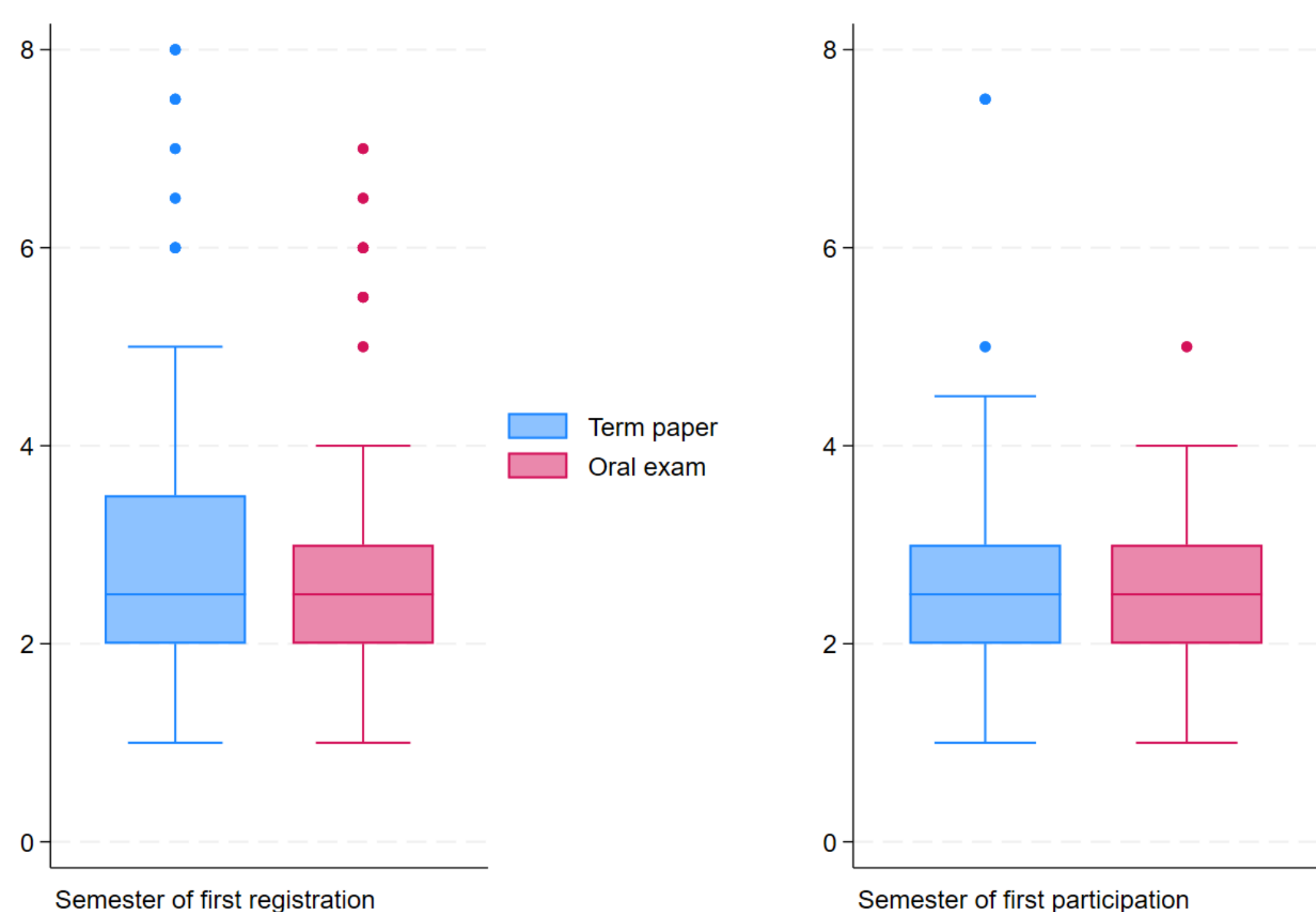
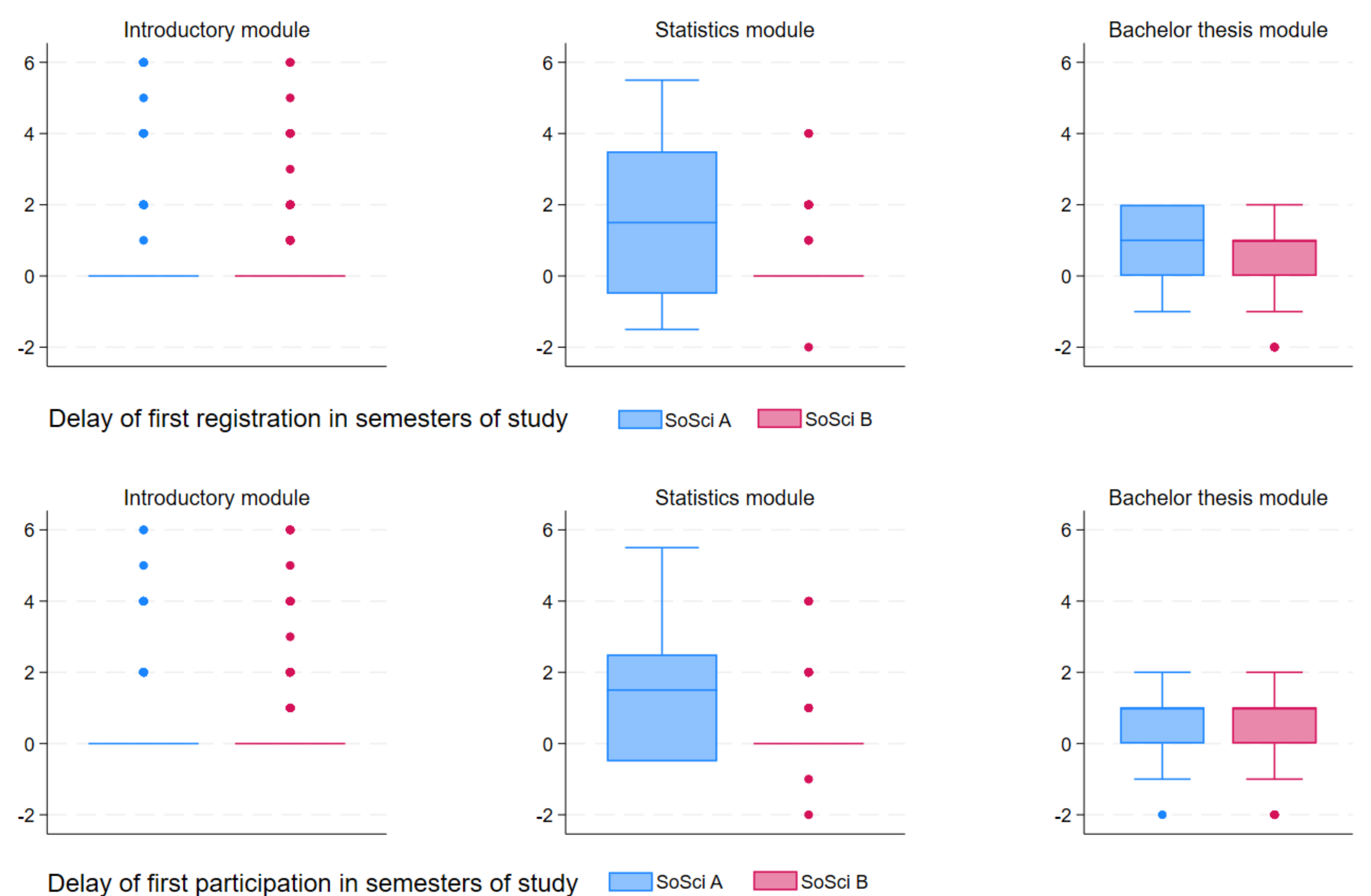


Figure 2: First participation in specialisation modules in "SoSci A" according to examination form

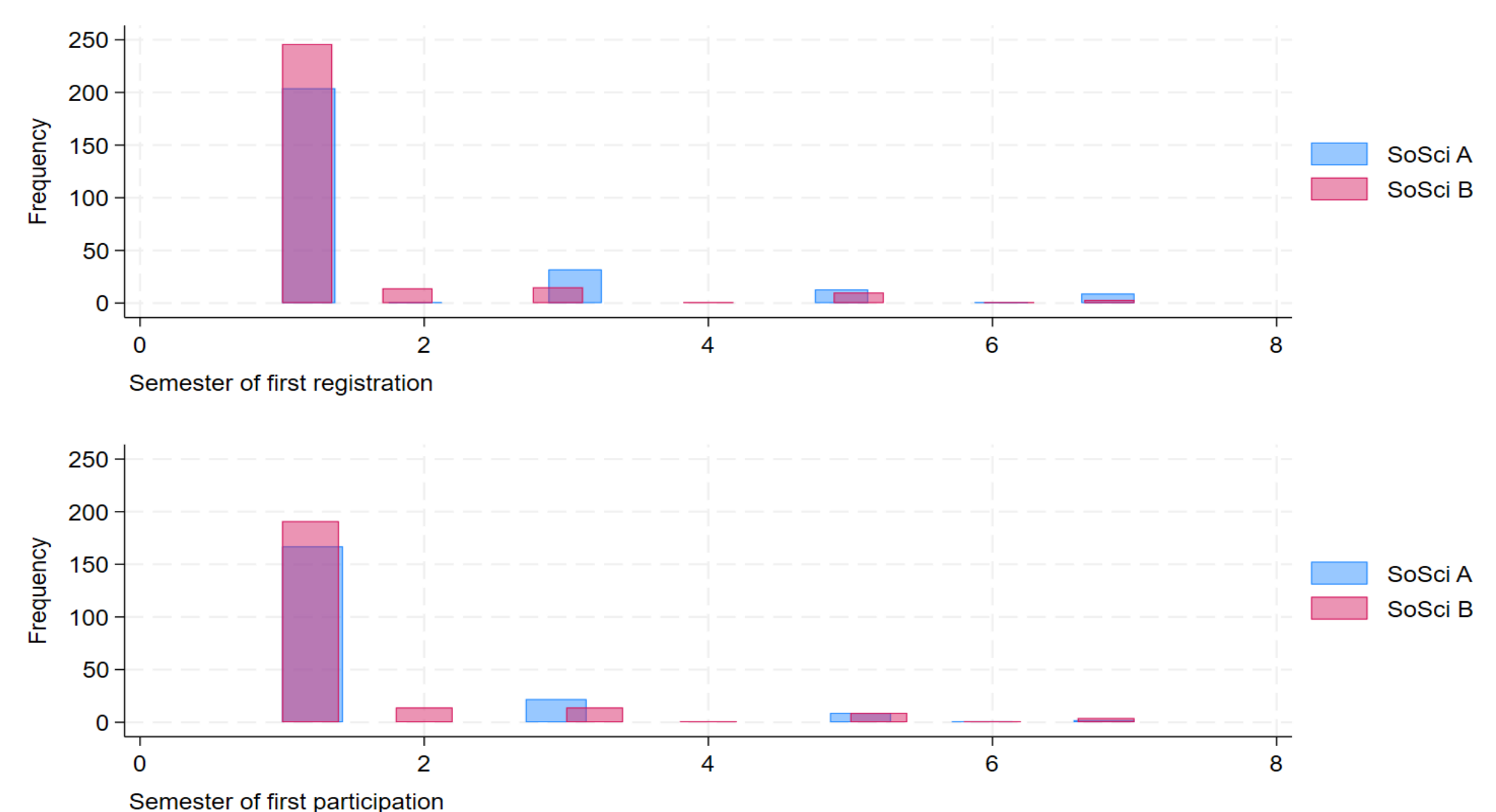
Study delays by type of examination

With regard to examination forms, there are no significant differences in the mean value between the examination forms term paper (N=161) and oral examination (N=158) in the specialisation modules of the degree programme "SoSci A", neither in the delay of a first registration ($p=0.201$) nor in the first participation ($p=0.910$) (Fig. 2). Therefore, the type of examination form does not make a difference to the time of first registration and first attendance at examinations if the form and content of the course remain the same.

Study delays by variation in number of examination periods

In both programmes, the introductory module shows hardly any dispersion around the median, despite a high range that extends over the entire period (Fig. 1). Although the module is included in the sample curriculum in the first semester in both programmes, 21.54% of the students in "Sowi A" and 15.17% of the students in "Sowi B" take it later (Fig. 3). As the pedagogical concept in both programmes requires that basic skills for the respective programme are learned in this module, this can lead to didactic problems in other modules. However, there are no significant mean differences between the programmes in the delay of the first interaction, neither in exam registration ($p=0.783$) nor in exam participation ($p=935$). In conclusion, the variation in the number of examination periods between one and two per semester does not make a difference.

Figure 3: Patterns of study behaviour by deadline for introductory module assignment



References

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