

THE MEASUREMENT OF STUDENT WORKLOAD

1. PROBLEM

The workload of students is crucial for the organization and the (international) comparability of curricula. In spite of the existence of corresponding administrative regulations the measurement of workload and the necessary methodological knowledge at German universities is barely existent. Hence, the focus of this pilot study is of methodological nature.

Objectives

- Comparison between measurement via conventional paper diary and the measurement via a smartphone app diary
- Comparison of the measured diary workloads with the prospective and retrospective self assessments of the respondents
- Determine whether short observation periods result in robust workload estimations

2. APPROACH & SAMPLE

- Population: active students who major in sociology
- Two observations: **O1** in July 2014 (exam period) & **O2** in November/December 2014
- Duration: 3 weeks per observation (2 weeks per respondent)
- Realized sample: 109 (**O1**) and 127 (**O2**)
- Prospective self assessment on first page of the paper diary/after first start of the app
- Retrospective self assessment via online questionnaire after the survey finished (matching via "Token")
- Incentivation: all participants took part in a raffle (prizes: smartphones and tablets)

6. CONCLUSIONS

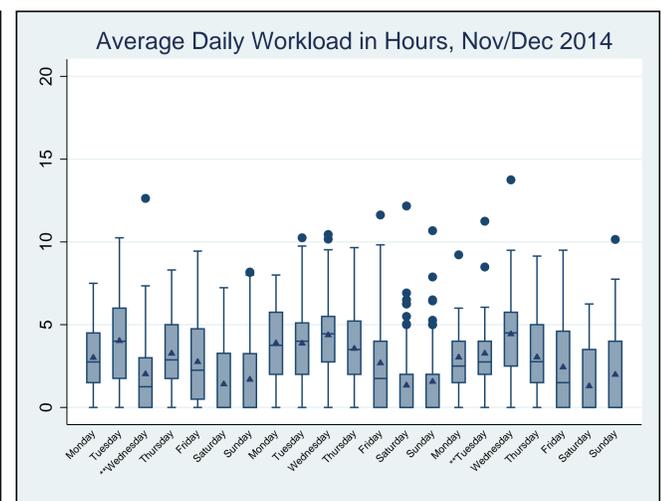
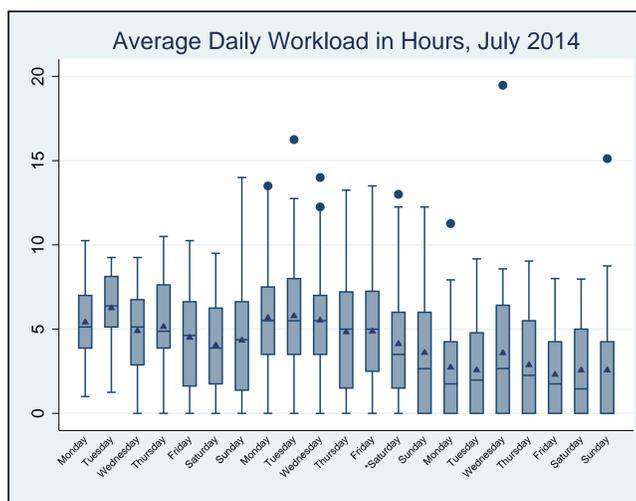
- Concerning sociology majors, there is no evidence that supports the frequently expressed thesis of "overworked students"
- Two short observation periods in the mid-semester and during the exam period provide surprisingly accurate workload measurements
- Retrospective self assessments provide good estimates, however further (experimental) research is necessary to confirm these results
- After initial problems the app produces data of good quality, yet the measurement via paper diary is still more accurate
- Since smartphones and tablets become more widespread, further research is advisable
- Smartphone apps may provide superior possibilities for future studies (e.g. geo-tracking)

REFERENCES

- [1] Schulmeister, R. & Metzger, C., 2011: *Die Workload im Bachelor: Zeitbudget und Studierverhalten*. Münster: Waxmann.
- [2] Berger, R. & Baumeister, B., 2015: *Messung von studentischem Workload: Methodische Probleme und Innovationen*. To be published in: Großmann, D. & Wolbring, T. (Ed.): *Evaluation von Studium und Lehre. Grundlagen, methodische Herausforderungen und Lösungsansätze*. Wiesbaden: Springer VS.

We would like to thank the company appPlant for providing the workload app!

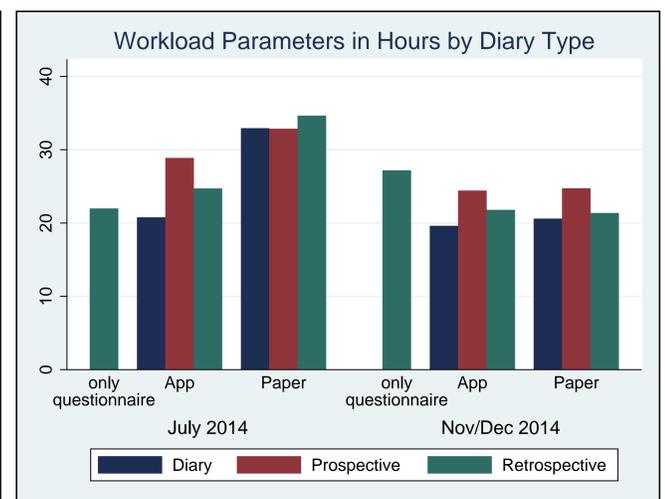
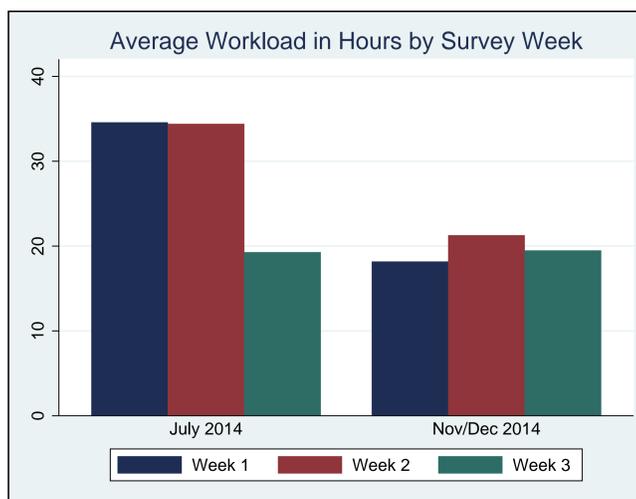
3. DESCRIPTIVE OVERVIEW



▲: means, *: beginning of semester break, **: lecture free

During the first two weeks of **O1** the measured workload is close to the administratively projected workload of 40 hours per week. Unsurprisingly, this changes with the beginning of the semester break. However outside the exam period the measured workload is only about 50% of the projected value.

4. METHODOLOGICAL FINDINGS: WORKLOAD



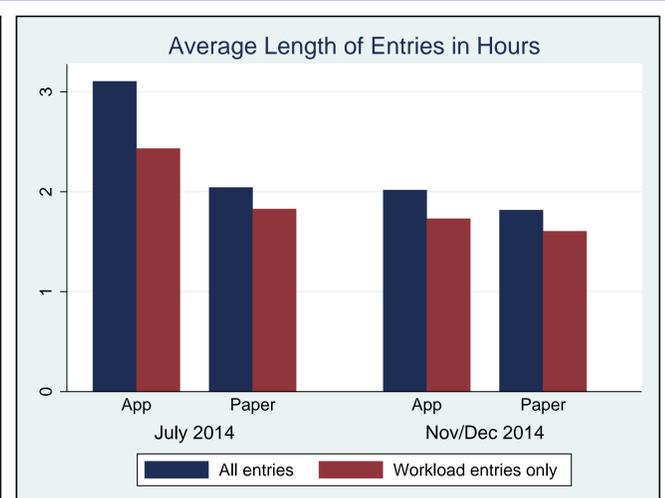
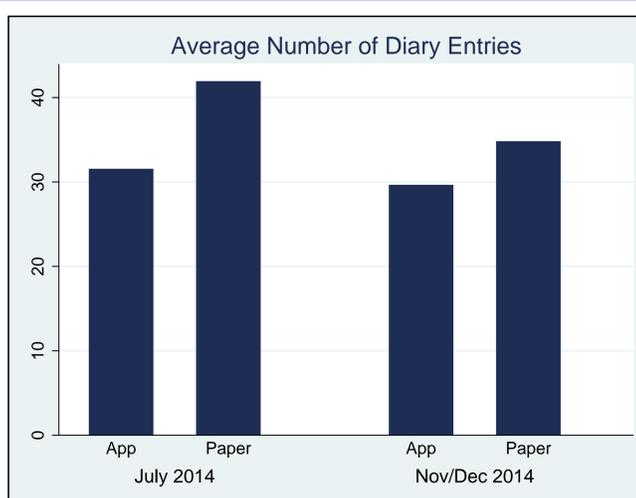
The first two weeks of **O1** coincided with the exam period, explaining the high workload. The differences between the average weekly workloads in non-exam-weeks are strikingly small. It is therefore advisable to refrain from conducting lengthy (and expensive!) workload assessments over several months. Measurement during a usual and during a "busy week" seems to be sufficient for getting an accurate overview of the workload distribution.

Technical difficulties caused a low number of valid cases that used the app in **O1** (n=11),

thus the stark differences between the two methods. In **O2** the measurements are almost identical.

The prospective and retrospective self assessments of the participants are surprisingly close to the values measured via diary. But: the respondents knew about the (imminent) survey, which in turn influenced their self assessment. The retrospective self assessment of those who only completed the questionnaire differs significantly from those that did participate in the study (→ may also be selection bias).

5. METHODOLOGICAL FINDINGS: ENTRIES



Rule of thumb: diaries with a comparatively large number of short entries are usually more accurate [1]. Less entries of longer duration hint towards technical or usability problems with the app. According to this assumption the dis-

crepancies in data quality in **O1** are comparatively high. Although the picture isn't as bad in **O2**, the data measured with a paper diary are still of higher quality than the data measured with the app.