



# HELP-SEEKING WHILE WRITING A SCHOOL-LEAVING CERTIFICATE PAPER

## Theoretical and Empirical Background

All students on upper secondary level in Switzerland have to autonomously write a school leaving certificate paper called *Matura*-thesis during the course of one year outside of the classroom context. This process requires high self-regulation competences such as metacognition, regulation of strategies and motivation. Writing a *Matura*-thesis can be divided into three phases: 1) concept phase 2) implementation phase and 3) final phase.

Studies show that targeted help-seeking makes a significant contribution to successful learning (Karabenick & Newman, 2006). The process of help-seeking is complex and places different demands on students' metacognition: For example, students have to recognise that they need help in order to solve a specific problem. Furthermore, a suitable person must be identified and asked for help. Finally, this assistance must be evaluated (Makara & Karabenick, 2013). Various studies have shown that persons are consulted depending on the context in which a problem arises (H1). Close persons, such as the family and peers, are mainly asked for help related to personal challenges (Boldero & Fallon, 1995; Rickwood, 1995) (H2). Sparks (2014) showed that students tend to turn to their peers less often as they get older (H3). Huber et al. (2008) have shown that the supervisor is an important contact for students who are writing a *Matura*-thesis, especially with regard to the structure and content of their work (H4).

## Methods

### Quantitative Questionnaire Data

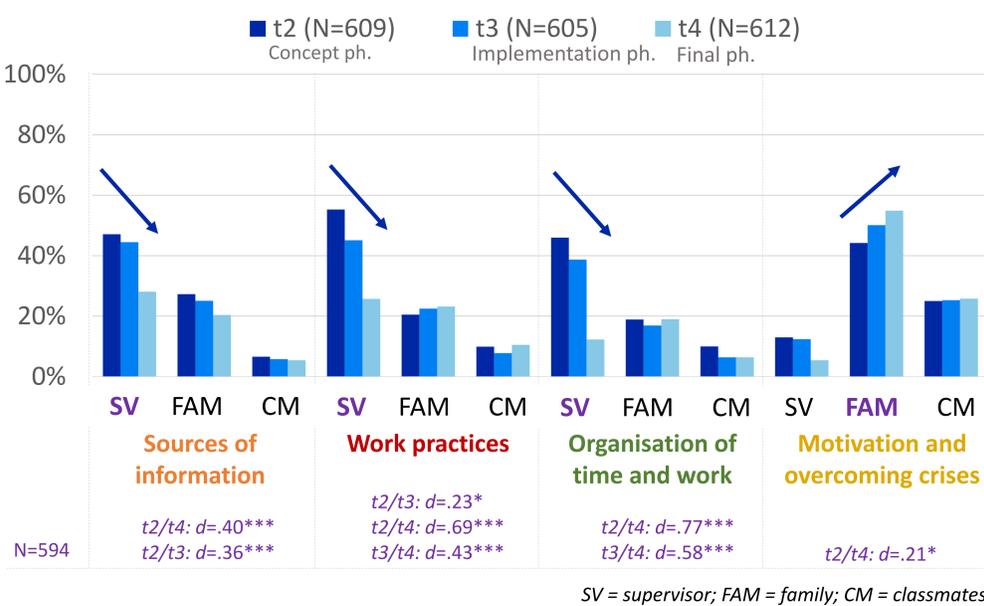
- Database** N = 1250 students (43,3% male,  $M_{t1} = 17,5$  years old,  $SD_{t1} = .81$ ), 12 upper secondary schools<sup>1</sup>.
- Sample**  $N_{t2-t4} = 616$  students (37,5% males,  $M_{t1} = 17,3$  years old,  $SD_{t1} = .71$ ), upper secondary schools, *Matura*-thesis individually written, longitudinal data from three time-points.
- Variables** Topics and contact persons: 3 Items per measurement time, (supervisor, family, classmates), 1 = quoted, 2 = not quoted.
- Analysis** IBM SPSS Statistics 24, Friedman-Test (Post-hoc: Dunn-Bonferroni-Test)

<sup>1</sup> All schools in this study are located in the German-speaking part of Switzerland.

## Results

### Quantitative

"Who did you contact when it came to the following aspects? Click on all the people you have consulted per aspect." (multiple answers possible)



## Discussion and Conclusion

According to the quantitative results, **H1 to H4 can be confirmed**. The analyses show that help-seeking changes over the phases of writing a *Matura*-thesis (H1). Specifically, seeking help from the family increases during the *Matura*-thesis process and is above all related to the aspect of motivation and overcoming crises (H1 & H2). Classmates are hardly consulted during the entire process of writing the *Matura*-thesis (H3), whereby help is most frequently sought in the aspect of motivation and overcoming crises. Seeking help from the supervisor tends to decrease in the course of the *Matura*-thesis creation and refers primarily to aspects concerning the content of the thesis (H1 & H4).

In contrast to the results of the quantitative analysis concerning motivational aspects, we could not find any concrete help-seeking on **motivational aspects** with the qualitative content analysis of the LD so far. Thus, based on the LD, a drop in motivation is not a reason for help-seeking – but the LD reveal that a successful search for help in other aspects can motivate students to continue their work. As with the quantitative results, qualitative analysis shows that the **supervisors** are very important contacts for **various aspects** throughout the entire creation process. They are especially asked for help during the **implementation phase**, concerning the preparation of data collection. Questions are often clarified within the framework of prearranged

## Research Gap

Up to now, it has been unclear to what extent the help of other persons besides the supervisor is consulted in the preparation of the *Matura*-thesis, for which aspects the students seek help and to what extent the contact persons and aspects change in the course of the *Matura*-thesis creation process.

## Research Question

*From whom and for which aspects do students seek help in preparing their Matura-thesis and to what extent do the contact persons and aspects change during the different creation-phases of the Matura-thesis?*

## Hypotheses

- H1:** Help-seeking is context-specific and therefore changes over the phases of writing the *Matura*-thesis.
- H2:** The family is consulted when it comes to personal challenges (here motivation and overcoming crises).
- H3:** Classmates are not asked much for help.
- H4:** The supervisor is sought for help with educational aspects (here sources of information, work practices, organisation of time and work).

### Qualitative Learning Diary Data (LD)

- Database** N = 242 LD (38 % male authors), 4 upper secondary schools.
  - Sample** N = 36 LD\* (47% male authors), 4 upper secondary schools.
  - Analysis** Structuring qualitative content analysis according to Kuckartz (2016)
- \*Sampling strategy: *Matura*-thesis individually written, LD with time marks, LD written during the whole process (all 3 phases documented, see table below), all LD of the 2nd and 3rd quartile of the distributional statistics of the following variables concerning LD length: number of signs, number of words, number of entries, number of signs per entry.

### Qualitative (preliminary results)

Remark: black = Complementation and deepening of quantitative results

Person	Concept phase	Implementation phase	Final phase
<b>Supervisor</b> 157 passages	<ul style="list-style-type: none"> <li>Finding and limiting topics</li> <li><b>Organisation of time and work:</b> next steps</li> </ul>	<ul style="list-style-type: none"> <li><b>Work practices:</b> help with the research design; development of data collection instruments like questionnaires, interviews, experiments; data evaluation and presentation</li> <li><b>Organisation of time and work:</b> work status, next steps</li> <li><b>Sources of information:</b> Mediation of contacts</li> <li>Setting a focus; finding the main thread</li> </ul>	<ul style="list-style-type: none"> <li>Feedback on reading samples</li> <li>Clarifying structure, content and formalities of the thesis</li> </ul>
<b>Family</b> (parents, older siblings) 53 passages	<ul style="list-style-type: none"> <li>Finding topics</li> <li><b>Sources of information:</b> Literature tips</li> </ul>	<ul style="list-style-type: none"> <li>Realisation (product thesis)</li> <li><b>Sources of information:</b> Mediation of contacts</li> <li><b>Work practices:</b> Handling of IT-programs (Microsoft Word, Citavi)</li> </ul>	<ul style="list-style-type: none"> <li>Proof-reading</li> <li>Clarifying formalities</li> </ul>
<b>Peers</b> 13 passages	<ul style="list-style-type: none"> <li>Finding a topic</li> </ul>	<ul style="list-style-type: none"> <li>Feedback on tools of data collection in form of pretests</li> <li><b>Work practices:</b> Research tips</li> </ul>	---
<b>Further Persons</b> (representatives of organisations, test subjects, experts) 223 passages	<ul style="list-style-type: none"> <li><b>Sources of information:</b> content knowledge</li> <li><b>Organisation of time and work:</b> Organisation of data collection</li> </ul>	<ul style="list-style-type: none"> <li><b>Work practices:</b> Data collection: support with data collection, providing personal information</li> <li><b>Sources of information:</b> mediation of contacts, content knowledge and literature</li> </ul>	<ul style="list-style-type: none"> <li>Proof-reading</li> </ul>

meetings, during which the status of the work and the next steps are discussed. Help-seeking within fixed meetings might be easier than if a student had to actively approach his/her supervisor. It could therefore be said that these meetings serve supervisors as an instrument for co-regulating the learning-process of students in critical phases.

According to the LD, **families** are consulted in fewer aspects than supervisors, but play a central role in the **final phase** of proof-reading the *Matura*-thesis, even if in exceptional cases other people are called in. LD data additionally revealed that students seek help from **further persons**, especially when they write an empirical *Matura*-thesis. These students are dependent on getting in direct contact with test persons or representatives of organisations (e.g. of companies, schools, homes) for their data collection. External experts are often interviewed to acquire specialist knowledge. The present study makes it clear that help is needed in different aspects depending on the work phase. Further investigations should analyse which types of help-seeking lead to a high quality *Matura*-thesis and in this context have a closer look on the relationship between students help-seeking and metacognition (e.g. knowledge about a task, knowledge about oneself, strategy-knowledge). In order to gain a more holistic picture it makes sense to combine different measuring instruments.