

Help-seeking types in different stages of writing a *Matura*-thesis



THEORETICAL AND EMPIRICAL BACKGROUND

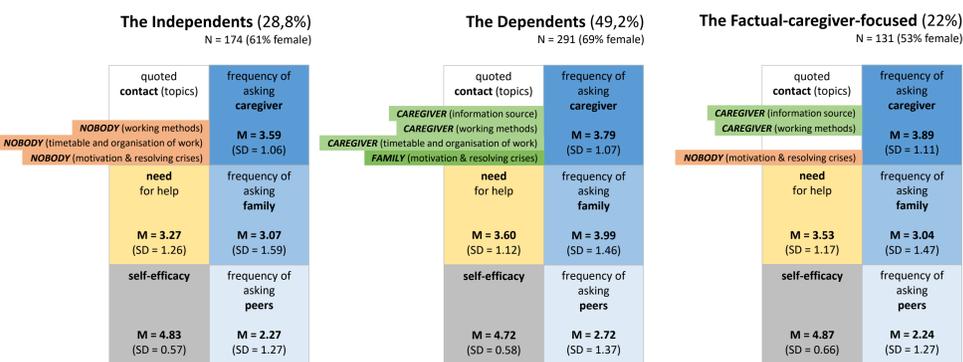
The process of writing a school leaving certificate paper (also called *Matura-thesis*) on upper secondary school level can contribute to the acquirement of self-regulation-competences, such as being able to use help-seeking strategies effectively (Huber et al., 2008). Those help-seeking strategies can fund in-depth learning (Karabenick & Newman, 2006). The *Matura*-thesis consists of three stages: development of concept (preparation stage), realisation of the thesis (realisation stage), and completion of the work (final stage). As the *Matura*-thesis is the first autonomously written academic paper beyond the instruction-context in Swiss grammar school, help-seeking strategies might play a major role in the writing process.

Help-seeking is an extern resource strategy which contains a social transaction with teachers, parents and peers (Karabenick & Newman, 2010). Referring to this, help-seeking studies in the context of classroom have shown that the older the students are, the less they ask for help (Ryan, Pintrich & Midgley, 2001), and to a lesser extent ask peers for help (Sparks, 2015). Further, girls are more likely to search help than boys (Nadler, 1998). Also, a lower self-efficacy can lead to less searching for help, because the need for help is experienced as threatening (Ryan & Pintrich, 1997).

RESULTS: HELP-SEEKING TYPES IN DIFFERENT STAGES

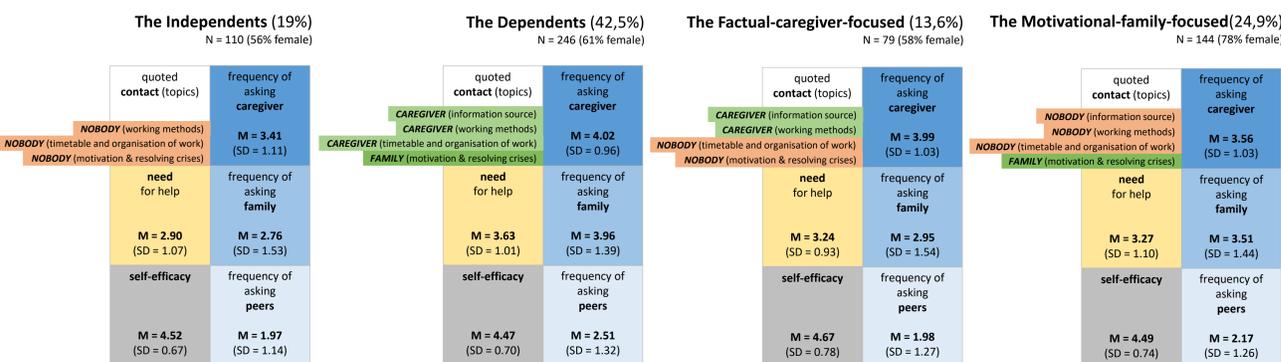
The following graphics illustrate the mean of the need for help, the mean of the frequency of asking different contacts for help, the mean of the self-efficacy and the quoted contacts (per topic) for each stage of writing the *Matura*-thesis (preparation, realisation, and final stage).

Preparation stage (N = 596, 63% female): 3-class-solution



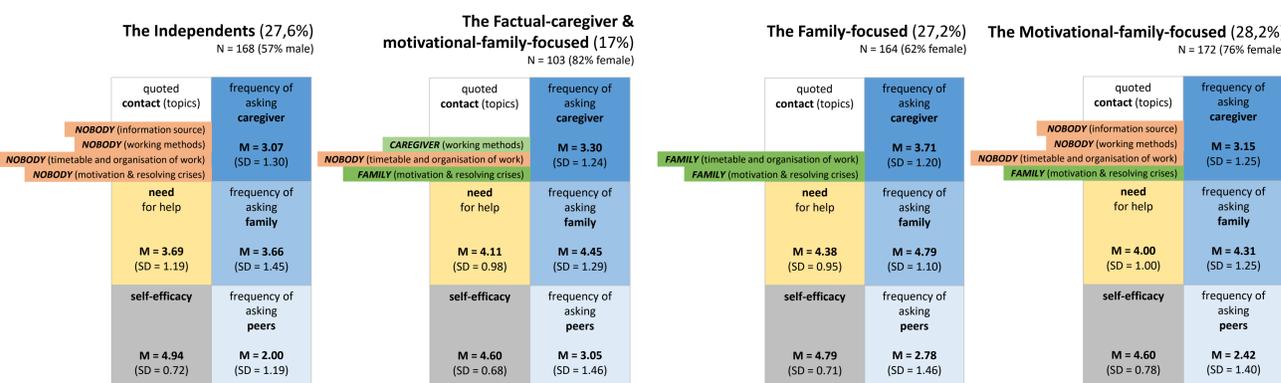
*self-efficacy: no sign. differences between help-seeking types.

Realisation stage (N = 579, 64% female): 4-class-solution



*self-efficacy: no sign. differences between help-seeking types.

Final stage (N = 607, 64% female): 4-class-solution



DESIDERATA & EXPECTATIONS

Currently, innovative research which links help-seeking types to specific stages of the learning process is sparse. To better understand help-seeking processes it is important to analyse these processes in relation to different learning stages. Each stage of the *Matura*-thesis contains different key activities (e.g. finding adequate literature). Therefore, it is expected that a variety of persons with different skills will be asked for help depending on each stage of the learning process and that students who are female or with a higher self-efficacy rather ask for help than students who are male or with a lower self-efficacy. These preliminary assumptions should also be reflected in the estimated clusters. In sum, the results could lead to a better understanding of the help-seeking behaviour and consequently improve supporting processes.

RESEARCH QUESTION

Which types of help-seekers can be identified in different stages of writing a *Matura*-thesis?

METHOD

Dataset N_{t1-t5} = 1229 (42% male, M_{t1} = 17.5 years old, SD = .84) students from 14 grammar schools in the German-speaking part of Switzerland (non-randomized).

Sample N_{t1-t4} = 634 (36% male) students from 14 grammar schools in German-speaking part of Switzerland (non-randomized), *Matura*-thesis as individual work.

Variables Single items: Sex (1 Item), contact persons and topics (5x4; multiple choice), frequency of asking (3 items; 1 = never, 6 = very often), need for help (1 Item, 1 = not at all, 6 = fully rely on help).
Scale: Self-efficacy ($\alpha = .80$; 3 Items; 1 = does not apply at all, 6 = fully applies).

Analyses LCA (MPlus7); significance test: Kruskal-Wallis, Dunn-Bonferroni and Chi2.

Stage	BIC	AIC	Entropy	Average latent class probabilities	LMR	BLR
Prep.	20911.061	20537.891	0.976	1 = 0.974, 2 = 0.992, 3 = 1.000	p = 0.00	p = 0.00
Real.	19891.471	19403.005	0.952	1 = 0.988, 2 = 0.968, 3 = 0.990, 4 = 0.969	p = 0.00	p = 0.00
Final	20100.351	19606.596	0.982	1 = 0.989, 2 = 0.986, 3 = 1.000, 4 = 0.995	p = 0.00	p = 0.00

DISCUSSION & CONCLUSION

Each stage (preparation, realisation, and final stage) of the *Matura*-thesis-process includes one type of help-seekers, which indicates a low need of help, a low frequency of asking for help and no quoted contacts compared to the other types. We call this type "**The Independents**". Contrary to expectations these students show high values for self-efficacy, particularly in the final stage. Moreover, as expected, they show the lowest share of female students with the exception of the preparation stage. Similarly represented by the preparation and the realisation

on stage are "**The Dependents**". They are characterised by their comparatively high need for help, their comparatively high frequency of asking for help, and their variety of quoted contacts. Moreover, this type up the largest group of students in both stages. Also represented in the first two stages are "**The Factual-caregiver-focused**". This type of help-seeker asks his/her caregiver for help regarding to information sources and working methods. The need for help in this type is relatively low. Represented in the last two stages (realisation and final stage) is "**The Motivational-family-focused**". This students ask their family for help in case of motivational crises and the need for help is comparatively low.

The final stage includes two help-seeking types which in this way didn't appear in the preceding stages: the first, "**The Family-focused**" help-seekers, refer to their family regarding to timetable and organisation of work, but also regarding to motivational concerns. Accordingly this help-seeking type has the highest mean in the frequency of asking the family for help. The mean of the need for help for this type reached the highest value over all types. The second newly identified type in the final stage, "**The Factual-caregivers & motivational-family-focused**", also show a relatively high need for help-value and they ask the family for help only on motivational requests. If there are questions about working methods, they consult their caregiver. Further investigation should analyse to what extent students stay or change a specific help-seeking type over time. Based on these help-seeking types the practice might have to be adapted.