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THE RELEVANCE OF STUDENTS' DIGITAL MEDIA BEHAVIOUR AND SELF-EFFICACY FOR ACADEMIC ACHIEVEMENT IN VIEW OF THEIR SOCIO-ECONOMIC BACKGROUND

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ABSTRACT

Research suggests a link between students' social background, e.g. educational background of parents, academic self-efficacy expectations and study behaviour. Often, lower academic achievement is expected of those students' whose parents are characterized by lower educational background. Although digital media are prevalent in several areas of everyday life, their relevance for academic achievement is not satisfactorily explored. Furthermore, it remains largely unknown in this context whether media usage is related to social background factors. In consequence, it is important to investigate if existing inequalities in higher education are stable, further enhanced or even reduced by means of "digitalisation". The present study explores the relationships between individual, contextual as well as social background factors, with a special focus on academic and digital media self-efficacy expectations. Data was collected at four German universities in summer 2018 (n = 2039). Currently, data is analysed by means of structural equation models.

KEYWORDS

Socio-economic background; digital media self-efficacy; digital media in higher education

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1 INTRODUCTION

Although digital media are prevalent in several areas of everyday life, their role in academic settings and their relevance for academic achievement are not satisfactorily explored. Research concerning academic attainment is often focused on the link between students' self-efficacy expectations and motivation (e. g. Komarraju & Dial, 2014; Pajares & Schunk, 2001; Putwain, Sander, & Larkin, 2013; Zimmerman, 2000), stating that self-efficacy expectations are an important predictor for academic goal setting and achievement.

Based on Bandura's social cognitive theory (SCT) (e. g. 1977, 2012), self-efficacy beliefs are expectations regarding one's capabilities to successfully master individual or study-related tasks and situations. The higher the self-efficacy belief, the higher the effort people will put into an activity, the longer they will preserve when confronted with obstacles (Pajares, 1996, p. 544). Thus, the SCT and self-efficacy expectations may be used as a theoretical framework to analyse thoughts, motivation and behaviour in academic contexts and, therefore, appear to be well suited to the aim of the study at hand.

In addition to the self-efficacy-achievement-relation, academic achievement varies between different social groups, such as migrants, students with children or low socio-economic status (SES) (Röwert, Lah, Dahms, Berthold, & Stuckrad, 2017). In this regard, research suggests that students' SES may affect academic achievement via self-efficacy (Weiser & Riggio, 2010). Surprisingly, whether media usage resp. certain types of media usage are relevant for academic achievement and their relation to social background factors remains largely unknown in this context.

Previous work on digital media at universities is predominantly based on empirical studies that describe different types of media usage patterns. These studies show that students with different characteristics (e.g. age, family status or ambitions) show differing patterns of digital media use in academic settings (Grosch, 2012; Zawacki-Richter, 2015; Zawacki-Richter, Dolch, & Müskens, 2017). However, the impact of digital media on studying itself as well as factors such as underlying motivations, emotions, self-evaluations, self-efficacy or students' social background are hardly considered in these studies. In consequence, it is unknown if existing inequalities in higher education are stable, further enhanced or even reduced by means of "digitalisation".

As academic self-efficacy expectations are deemed relevant for academic behaviour and achievement and certain types of digital media usage are supposedly relevant in terms of successful studying as well, self-efficacy expectations regarding digital media use (DMSE) should also be taken into account.

Apart from that, in other research on academic achievement, evidence for the association with the following constructs were often found: gender; previous academic performance (Talsma, Schüz, Schwarzer, & Norris, 2018); motivation and goal orientation (Hsieh, Sullivan, & Guerra, 2007) because of its relevance for interest and self-regulation and its dependence on self-efficacy (Honicke & Broadbent, 2016); emotions like anxiety (Hsieh, Sullivan, Sass, & Guerra, 2012); perceived control over actions and outcomes (Pekrun, 2006) and certain personality traits like conscientiousness due to its link to self-discipline (Lievens, Ones, & Dilchert, 2009).

A sketch of the assumed relationships is shown in Figure 1. Next to these often found connections, we aim to explore the relevance of digital media and of the associated self-efficacy expectations for academic achievement (highlighted), in order to fill this research gap and to supplement current research on learning in higher education institutions.

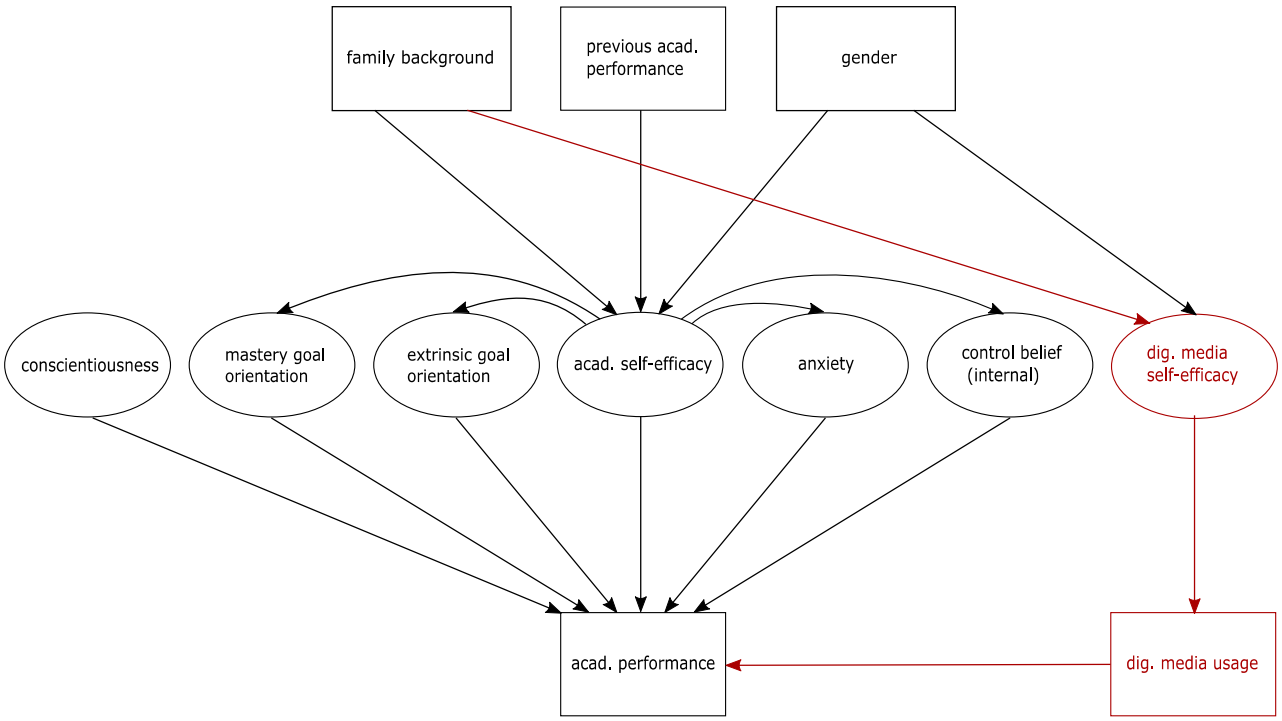

Figure 1: Path diagram of theoretically assumed relationship of constructs.

2 Data & Methods

In order to analyse the above mentioned relationships, data was collected by using a recently developed survey instrument that allows addressing the multi-faceted character of academic studies and digital media behaviour (Pumptow & Brahm, under review).

The scales of the questionnaire are based on approved scales taken from instruments in current research in the subject area (Brahm & Jenert, 2015; Grosch & Gidion, 2011; Jerusalem & Schwarzer, 2002; Lang & Hillmert, 2014; Leichsenring, 2011; Zawacki-Richter, 2015). Additionally, based on the general self-efficacy scale by Schwarzer and Jerusalem (2010), a scale for self-efficacy in terms of digital media was newly constructed to capture students' media-related self-efficacy. Data collection took place at four German universities from May to July 2018. In total, 3342 students participated in the online-survey of which 2039 cases remain after excluding cases due to missing data. Currently, data is analysed in terms of the above mentioned relationships by means of structural equation models.

3 Results

Initial multiple regression analyses indicate that the expected relationships between the above mentioned constructs (see Figure 1) can be confirmed with our empirical data. Results of the in depth-analyses will be presented at the conference.

4 Conclusion

The results will show first insights into the relevance of certain types of digital media behaviour for academic success in higher education. Furthermore, it is shown how digital media self-efficacy is linked to this observable media behaviour and to students' social backgrounds. In this regard, our research contributes to the important question of the relation between students' digital media use, their social background and their study success.

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