4. Discussion

This study was designed to contribute to the international literature on achievement motivation by adopting an exploratory, mixed-method approach to understanding the motivational processes of Rwandan secondary students. We administered open-ended questionnaires to a sample of 153 students to elicit the factors that they perceived to facilitate or undermine their motivation during classroom activities. Within questionnaires, we also asked students to list those subjects they associate with (a)motivation. We combined the listing data with end-of-year school to perform correlational analyses, which allowed us to quantitatively examine whether or not associating a school subject with (a)motivation predicted school grades. In this section, we briefly highlight how the findings from this study compare to the extant literature on achievement motivation within the international context and to the literature on education in Rwanda.

*4.1. Motivation an educationally relevant but multidimensional construct in the Rwandan school context?*

To our knowledge, no systematic investigation into achievement motivation within Rwandan classrooms has been conducted to date. However, our study findings suggest that achievement motivation could indeed constitute a useful framework to look at students’ education even within the Rwandan school context. Our correlational analyses of the listing exercise revealed that motivation was a positive predictor of end-of-year grades in several high-stakes subjects. This implies that Rwandan students that experience motivation are more likely to achieve higher learning outcomes as well—an observation consistent with findings from other regions of the world (Köller et al., 2019; Kriegbaum et al., 2018; Lauermann et al., 2020; Lavrijsen et al., 2021; Lotz et al., 2018; Meyer et al., 2019; Steinmayr et al., 2018, 2019; Wu et al., 2021). This finding may not only be of academic but also of practical relevance. After all, motivationally informed education interventions have been found to be both cost-efficient and impactful, something of interest to resource-constraint nations that struggle with student learning outcomes such as Rwanda.

However, our qualitative study findings do not suggest (a)motivation is a mono-dimensional phenomenon. Our qualitative analyses of students’ statements on the reasons for the experiences of (a)motivation suggest a range of different cognitive-affective factors that may shape achievement motivation within Rwandan classrooms. Using a coding frame derived from the expectancy-value model of achievement motivation, and discussed below in detail, we find that students imply expectancy, school utility, and affective states in particular as reasons for experiencing motivation during classroom activities (see table 2). We also find evidence that goals that students feel committed seem to shape their motivational experiences in class. Thus, in line with mainstream expectancy-value and goal theory, motivational processes within Rwandan classroom-contexts are best described as a multidimensional phenomenon as well. It is for this reason that our quantitative findings on the motivational effects on school grades are rough estimates at best. However, they warrant additional research into potential link between achievement motivation and educational outcomes such as learning attainment within the Rwandan context. For example, future studies should explore to what extent the different motivational facets associated with Rwandan students’ expectancy, value, and cost beliefs predict school grades. Our discussions next may provide some insights into what motivational factors may be of relevance.

*4.2. Expectancy beliefs as necessary but insufficient prerequisite for motivation?*

As shown in Table 2, student statements coded as reflecting expectancy beliefs were notably prominent in both the motivation and amotivation data. These beliefs were associated with 77.80 percent of the 153 respondents whose motivation and amotivation statements were analysed—significantly more than those associated with value (61.40 percent) and cost (39.20 percent) statements. At face value, these findings highlight the high relevance of expectancy beliefs in explaining the experience of (a)motivation in classroom contexts. This aligns with motivational literature on self-beliefs, which emphasizes the central role of expectancy beliefs—and related constructs—in fostering motivation and learning (Marsh et al., 2019). Additionally, Table 2 reveals that expectancy beliefs were more strongly associated with amotivation data than with motivation data. While 55.68 percent of motivated respondents linked their motivation to expectancy beliefs, a much higher proportion (89.16 percent) of amotivated respondents identified a lack of expectancy beliefs as a reason for their amotivation. In contrast, 88.64 percent of motivation respondents were found to imply value as a reason for their experience of motivation whereas only about .89 percent of amotivation respondents were found to imply the lack of value as a reason for their experience of amotivation in class. According to expectancy-value theory, expectancy beliefs play a foundational role in shaping value beliefs (Eccles & Wigfield, 2002). This suggests that students are unlikely to assign value to tasks for which they do not develop any success expectations. Interpreting our study findings through this lens suggests that, within the Rwandan school context, expectancy beliefs may indeed not be a sufficient condition for experiencing motivation in classroom activities, but they appear to be a necessary condition for not experiencing amotivation. The quote of male S1 student may illustrate this. As he explained, he experiences motivation within classroom activities because “I don’t give them value because I am not capable of studying them”.

Within the motivational literature, it has been argued that children, especially at younger age, do not distinguish between competence self-perceptions such as expectancy beliefs as well as task difficulty (e.g., Eccles & Wigfield, 2020). Within our data, we interpreted task difficulty as effort cost. Within our data, we also found that statements we associated with effort cost were raised in particular by those students that also implied expectancy beliefs. Across both samples, we linked it with around 19.00 percent of respondents. This suggests that within the Rwandan school context students may consider expectancy beliefs and effort cost as related. Thus, on its own any educational intervention designed to tackle amotivation amongst students could target students’ expectancy beliefs or effort self-perceptions.

*4.3. School utility as a driver of motivation?*

Within the motivational literature, the subjective reasons for task engagement can be associated with both value as well as goals. Within the motivation data, we associated around 92.00 percent of respondents with either value or goal statements. This is a significantly larger proportion than the percentage of respondents we associated with expectancy statements. It aligns with our reading of the data that expectancy beliefs may be a necessary condition for no experiencing amotivation, but it may not be a sufficient condition for experiencing motivation in classroom activities. Our findings suggest that students associate the experience of motivation especially with value and/ or goals. We considered goals and utility perceptions as purpose-driven reasons for task engagement. We found that around 79.60 percent of motivation respondents were associated with statements that implied utility value and/ or goals. Within those purpose-driven reasons, school and learning utility were found to be the most common coding categories with about 57.95 percent of motivation respondents. Even though learning utility was a rather generic, and probably a conceptually not helpful coding category, we considered it closely related to school utility. The prevalence of school utility within the data is in line with the Rwanda-specific literature. Based on extended periods of fieldwork at Rwandan schools, Honeyman (2015) concluded that “[Rwandan] students thus had a fairly explicitly instrumental understanding of the purpose of schools. […] What counted for them, crucially, was school’s role in preparing them for examinations, the hurdle they had to pass in their objective of getting a university degree and finding a high-paying job”. Her conclusion implies that school utility may partly overlap with general utility. This may be particularly true for students in the lower age ranges like the ones we covered in our study. This in turn may also explain general utility was less common within our data. Higher age groups may exhibit higher levels of general utility perceptions.

The predominantly instrumental value that Rwandan students associate with school may also explain the absence of evidence for attainment value in our data. Considering the central role of attainment value within expectancy-value theory (e.g., Eccles & Wigfield, 2020), this finding is noteworthy. One possible explanation may be that universal access to education is a relatively recent development in Rwanda. As a result, many Rwandan families might not have had sufficient exposure to formal education to develop those education-related roles and identities that could have shaped the attainment value of those children that are now attend school. To some extent, however, perceived uselessness might have been related to attainment value. Within quantitative research, Math-related attainment value is partly measured through items such as “To be honest, I don’t care about math” (Gaspard et al., 2015, p. 668), which resembles statements on perceived uselessness we collected such as “I am wasting my time” or that “I don't care” (see table 1). Thus, achievement motivation within the Rwandan context might not be fully void of attainment value after all.

*4.4. Affective factors relevant for (a)motivation?*

Perceived effort cost was the only cost factor that we wound to be present in both the motivation and amotivation data. Within the amotivation data, emotional cost was the most common coding category applied. Conceptually it is related to intrinsic motivation. Both describe affective experiences as is illustrated amongst others by the sample quotes in table 1. Whereas emotional cost is amongst others associated with “hate” (male S3 student) for an activity or subject, intrinsic value describes amongst others “love” (female S3 student) for a lesson or subject. Across both samples, around 55.60 percent of respondents were found to imply affective experiences. It is in line with the general relevance ascribed to achievement emotions within education. Achievement emotions such as enjoyment or anger are defined as those “emotions that occur in response to events and actions that are judged according to competence-based standards of quality” (Pekrun et al., 2023, p. 146). The theory of achievement emotions distinguishes between at least 12 different types of educationally relevant emotions. We, too, found in our data indications of different types of emotions. In terms of positive emotions, students expressed to “like/ love” what they were studying. They also reported experiencing “enjoyment” during their studies. In some instances, motivation respondents also indicated the experience of pride or interest. As for amotivation, respondents often expressed negative emotions as the absence of enjoyment or as not liking a subject. In some cases, students also made references to other emotions such as anger, hate or boredom. A comment is warranted here. At times, it appeared that the line between the consequences of motivation as well as emotions as reasons for motivation were blurry. For example, a male S1 student wrote into a motivation questionnaire that “I understand that subject and I get excited about it”. We coded this statement as implying both expectancy beliefs (i.e., I understand that subject) as well as intrinsic value (i.e., I get excited about it). However, one could have argued that the fact that the student became excited about the classroom activity was a consequence of his motivation and classroom engagement. Both interpretations do not necessarily contradict each other. As the theory of achievement emotions highlights, students may not only experience emotions during school activities. They may also experience emotions before (e.g., anxiety) or after school activities (e.g., pride). Our data suggests that within the Rwandan school context this temporal dimension of emotions during motivational processes appears to hold true as well.

*4.5. The validity of the study results*

Our findings and results are of substance only to the extent that they appear to be credible and trustworthy.

validity of the research design can be established. As outlined in appendix S3, reliability of coding results were established amongst others through processes of negotiated agreement. To establish validity, we took into account its different sources (e.g., Krippendorff, 2004; Schreier, 2012).[[1]](#footnote-1) The discussions on the meaning of ishyaka with both university students as well as some of the study participants revealed that Rwandan students did indeed access the meaning of motivation we wanted to convey through our open-ended questionnaires. We took this as evidence of the face validity of our questionnaire wording. As table 6 highlights, the term motivation within the listing exercise we carried out helped to predict end-of-year school marks. We considered this as evidence for criterion validity of wording strategy.

The use of open-ended and self-administered questionnaires encouraged students to list their cognitive-affective experiences in class openly. The administration of both a motivation and amotivation questionnaire across a sample of 153 students should thus help to uncover a broad range of different cognitive-affective factors that may shape (a)motivation. A coding frame derived from the expectancy-value model, which is an eminent representation of the different cognitive-affective reasons of why students engage with activities, and applied by two coders, including a Rwandan one, thus helped to adequately summarize and categorize the themes within the raw data collected. Altogether, we take this as evidence of the content validity of the data analysis strategy. Given the nascent stage of motivational research in Rwanda it was not possible to explore the construct validity of our research insights over and beyond the other sources of validity. However, the partial associations between the different motivational facets reported in table xxx and xx could be taken as evidence of construct validity as well. In sum, due to the reliability and the validity being established, we concluded the coding results as credible.

Limitations

* Additional studies are necessary to explore if designs not shaped by expectancy-value theory find additional motivational facets.

1. Even though qualitative research findings are often evaluated in terms of its credibility and trustworthiness, qualitative content analysis is generally discussed in terms of validity and reliability, nonetheless (e.g., Drisko & Maschi, 2016). [↑](#footnote-ref-1)