

Title

Noncognitive Skills Profiles and Student Satisfaction in Higher Education

Research Overview

Student satisfaction is crucial in the context of higher education (HE) as it reflects how satisfied HE students are with various aspects affecting their tertiary education experiences. High levels of student satisfaction have been linked to better academic achievement, improving motivation and higher retention rates (Mihanović et al., 2016; Nastasić et al., 2019). Higher levels of student satisfaction with university life have also been associated with lower levels of depression and anxiety among college students (Liu & Wang, 2024). This in turn can have positive impact on students' mental health.

While many factors affecting student satisfaction have been identified within HE literatures, students' noncognitive factors are generally not as extensively studied as compared to other factors. Hence, it is vital to examine how students' noncognitive factors in contributing to student satisfaction as in HE setting.

Purpose of Study

One key student factor that play a crucial role in the context of HE is students' cognitive skills and attributes. Its contribution to academic success is well documented in the HE literature. Noncognitive skills and attributes such as motivation, self-regulation, and self-efficacy were identified as predictors of student satisfactions in a few recent studies (see Gernal, et. al., 2024; Lysitsa & Mavroeidis, 2024; Prifti, 2022).

As noncognitive skills and attributes are often interrelated, examining them in isolation may not capture their contributions on student satisfaction adequately.

The aim of the present study was to examine the *collective* effects of noncognitive skills and attributes on student satisfaction in the context of HE. Instead of examining the contribution each noncognitive skill or attribute, the study focused how different noncognitive profiles, with each profile represents a group of noncognitive characteristics, relate to the levels of student satisfaction in the context of HE. The study hence provides further insights on student satisfaction in HE by uncovering the link between noncognitive readiness and student satisfaction in the context of HE.

Research Methods

The study used 119 participants who were students enrolled in one of the private HE institutions in Singapore. Their noncognitive profiles were determined in a separate study (Wong & Chapman, 2024) using six noncognitive skills and attributes crucial for HE success: academic motivation; self-regulated learning; learning approaches; growth mindsets; career aspirations; and resilience. From the study, participants were categorised into three distinction noncognitive readiness groups: High, Moderate and Low.

Eight items with a 7-point rating scale were used to measure the participants' satisfaction on three main areas: academic ("Program" and "Teaching of lecturers"), institutions ("Institution", "Campus facilities", "Student support provided") and university life ("My own learning", "My overall university experience" and "My life as a university student in general"). The score indicated for each aspect represents the level of satisfaction for that specific aspect.

Descriptive analysis and one-way Analysis of Variance (ANOVA) were used to examine the link between the different noncognitive profile groups and different aspects of student satisfaction.

Results and Discussion

Of the 119 participants, 40 (33.6%) were identified as High, 64 (52.1%) as Moderate and 17 (14.3%) in Low Noncognitive Skills. The High Noncognitive Skill group reported the highest satisfaction levels across all the eight items measuring student satisfaction, followed by the Moderate Noncognitive group and lastly the Low Noncognitive Skills group.

Overall, the ANOVA showed that the satisfaction mean scores for all the eight aspects were significantly different across the three non-cognitive groups. The difference in the satisfaction on aspect of "My Own Learning", with $F(2,116) = 19.59, p < .0001$. The Tukey tests indicated that there was least one significant pairwise difference in satisfaction mean scores among the three groups. Most significant differences were found between the High and Low Noncognitive groups. Significant differences were found in the satisfaction mean scores in seven of the eight aspects studied.

The descriptive analysis shows that all the three noncognitive profile groups were most satisfied with "Program". While the High Noncognitive group was least satisfied with "Student support provided", both the Moderate and Low Noncognitive groups were least satisfied with "My life as a university student in general". Satisfaction on this aspect was the second lowest for the High Noncognitive group.

Using these profile groups, the results confirmed significant links between non-cognitive readiness profiles and student satisfaction of HE students. Students entering HE with inadequate noncognitive readiness can potentially lead them to be less satisfied with their educational experiences, especially in terms of their own learning. Consequently, this may cause them to be less inclined to embark on lifelong learning in the future, preventing them from attaining crucial skills later in life.

To raise student satisfaction, HE institutions can focus on developing students' noncognitive skills and attributes. For instance, HE institutions can encourage the students to adopt the right learning approaches, help them to adopt better learning approaches or nurture them to be more resilient.

Keywords

Student satisfaction, higher education, noncognitive skills and attributes.

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