

Academic Self-concept and Academic Achievement: An Empirical Evidence from Kumbhakar Community Students at Secondary Level

Prasenjit Das[®], Payel Paul[®], Pranab Barman[®], Rituparna Acharyya[®] and Niloy Pramanick

The study aims to evaluate the secondary-level academic achievement and self-concept of the pupils belonging to the traditionally impoverished potter caste of the Kumbhakar Community. A self-made questionnaire evaluates the impact of academic self-concept on academic achievement in schools. The sample consists of 100 secondary school students from three schools. Results reveal that Kumbhakar community students have a moderate academic self-concept in academic achievement, with no significant gender-based differences, guardian's occupation, and educational level. A substantial disparity exists in academic self-concept among secondary-level students based on family type and Residence, as well as a low positive correlation between academic selfconcept and achievement. Moreover, this study highlights how attaining Sustainable Development Goal 4 (Inclusive Education for All) can improve students' academic self-concept and performance in impoverished or socioeconomically backward communities by developing positive attitudes within an elusive environment and crucial interventions facilitating robust acculturation.

Prasenjit Das 🖂

Department of Education, Raiganj University, West Bengal, India. Email: pdas1534@gmail.com. ORCID: https://orcid.org/0000-0003-0578-8792

Payel Paul

Department of Education, Raiganj University, West Bengal, India. Email: payelpaul964@gmail.com. ORCID: https://orcid.org/0009-0004-0852-0059

Pranab Barman

Assistant Professor, Department of Education, Raiganj University, West Bengal, India. Email: pbarmanskbu@gmail.com. ORCID: https://orcid.org/0000-0002-3783-0097

Rituparna Acharyya Faculty of Geographical Sciences, Kazimierz Wielki University, Bydgoszcz, Poland. Email: ra@ukw.edu.pl. ORCID: https://orcid.org/0000-0002-5410-0408

Niloy Pramanick Asian Institute of Technology, Chang WatPathum, Thailand. Email: niloy.pramanick@yahoo.com



This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

KEYWORDS: Academic Self-Concept, Academic Achievement, Kumbhakar Community Students, Secondary Level, Sustainable Development Goal 4

INTRODUCTION

Education refers to imparting knowledge to foster personal development and discover one's undiscovered skills (Dagnew, 2018; Huang, 2011). An excellent academic self-concept is beneficial, especially in motivating pupils to enhance their academic performance (Meshkat & Hosseini, 2015). An array of variables impact pupils' academic performance, including variables relating to learners, educators, and schools (Sharma & Sharma, 2021). An individual's self-concept is a key factor in shaping his/her personality since it influences behaviour, success, and other positive aspects of life (Sen, 2018; Zheng et al., 2014). Various factors such as motivation, desire, self-confidence, and self-concept can influence a pupil's academic achievement (Mahato & Barman, 2019; Sikhwari, 2014).

In addition, several factors can impact a student's academic performance, including personality traits, learning styles, I.Q., and attitudes towards education (Li et al., 2020). In contemporary culture, academic success is crucial in determining one's overall potential and capabilities. As a result, academic success is crucial to learning and Education (Bhat, 2013; Igbo et al., 2015). Academic self-concept influences academic achievement, in line with a perspective According to proponents of the self-improvement of self-improvement. paradigm, academic self-concept is a significant factor in academic success, proving that academic self-concept enhances academic achievement (Cokley, 2000; Jaiswal & Choudhuri, 2017). Self-concept also incorporates the response to the question, "Who am I?" A person's past, present, and future selves, as well as their self-schemas, make up their self-concept (Green et al., 2006). Self-concept is distinct from self-awareness, implying clarity, consistency, and applicability in understanding one's attitudes and dispositions (Lone & Lone, 2016; Parker et al., 2014).

The scholastic development of secondary-level school students worldwide is significantly influenced by their self-concept (Chevalère et al., 2023; Wahab et al., 2023). Since their self-concept is more academically focused, students will perform better in their educational experiences (González-Nuevo et al., 2023; Yang et al., 2023). As a result, the current study focuses on secondarylevel students from the Kumbhakar community, which is a substantial, sizable, and growing community with multiple variations in academic achievement. This study is aimed to determine how much their academic achievement

and self-concept are significantly affected. Thus, this research focused on the academic self-concept and academic achievement among secondary-level students.

This research aims to ascertain if (and to what degree) there are meaningful relationships between secondary school student's academic achievement and their self-concept (Awan et al., 2011). The current study's findings are also significant for parents, teachers, and educational authorities to understand how children's self-concept affects their academic achievement. It will assist pupils in establishing their self-concept if they pursue their education carefully and intellectually. On the other hand, parental support incentivises students to enhance their performance since parents are crucial in guaranteeing their children's academic achievement (Bhat, 2013).

RATIONALE OF THE STUDY

The present study is driven by the imperative need to explore the relationship between academic self-concept and academic achievement within the unique socio-cultural context of the Kumbhakar community (Huang, 2011). This study stems from the realization that academic achievement is strongly connected with an individual's view of their academic ability and is not only controlled by external variables such as school facilities or teaching approaches (Marsh & Martin, 2011).

The Kumbhakar community, being an integral part of the diverse fabric of Uttar Dinajpur, presents a distinctive set of cultural nuances that may influence students' self-concept and academic performance (Barai, 2020). Understanding how academic self-concept, defined as an individual's perception of their academic abilities and worth, impacts the academic achievements of Kumbhakar community students is crucial for developing targeted interventions and support systems that cater to the specific needs of this demographic.

This study explores a vital crossroads in secondary-level students' academic journey when self-concept can considerably affect educational outcomes. It is anticipated that the findings of this research will not only contribute to the academic literature but will also inform educators, policymakers, and community leaders about the factors influencing the educational experiences of Kumbhakar community students (Mohajerzad et al., 2021).

Furthermore, the study aligns with the broader educational discourse that recognizes the importance of a holistic approach to academic success. By examining the interplay between academic self-concept and achievement, the research seeks to provide actionable insights that can be used to design effective interventions, foster a positive learning environment, and promote the academic empowerment of Kumbhakar community students (Sewasew &

Schroeders, 2019). In doing so, it aspires to enhance educational outcomes and opportunities for this community in Uttar Dinajpur, West Bengal.

LITERATURE REVIEW

This section reviews the most relevant research conducted on self-concept and academic achievement in secondary school students. Ghazvini (2011) investigated the correlation between academic self-concept and academic success in high school students and revealed that a positive and robust academic selfconcept highly reflects overall achievement in mathematical concepts and literature subjects. When Kumari and Chamundeswari (2013) examining the relationship between students' academic achievement and self-concept at the higher secondary level, they found that central board students performed better than peers from other boards. Bhat (2013) observed the correlation between parental support, self-esteem and academic achievement in secondary school children. He observed that the correlation between female students' academic achievement and their fathers' support is nil. Emmanuel et al. (2014) studied high school student's academic achievement, self-concept, and achievement motivation. The results showed that these students were highly motivated, had positive self-perceptions, and performed well on the Mathematics Performance test. Emmanuel et al. (2014) also discovered a relationship between academic success and achievement motivation; however, it was not statistically significant. Gupta (2014) discovered that there was no statistically significant gender difference and when the father's education and employment were considered, highly significant differences were found for academic success and achievement motivation. According to a study by S. K. Das et al. (2014) on attitudes toward education and academic achievement, a weak negative correlation exists between the former and the latter. As per Agrawal and Teotia (2015), urban students have superior temperamental traits, emotional inclinations, and mental health compared to rural students. The above-mentioned study also revealed a strong correlation between the variables, academic success and self-concept. Meshkat and Hosseini (2015) investigated the correlation between academic self-concept and academic performance in English as a subject and discovered a significant correlation between academic self-concept and measures of intellectual accomplishment in both English and Grade Point Average.

On the other hand, Oommen (2015) discovered a strong association between upper-secondary students' self-concept and academic success and indicated that male and female learners will have very different self-concepts. In another study, Gunasekar and Pugalenthi (2016) found that students' self-concept is far more significant based on academic achievement than it is based on their probabilities. Lone and Lone (2016) observed a significant correlation between self-concept and academic achievement, considering a sample size of 248 students. Dagnew (2018) revealed no statistically significant difference in academic accomplishment between males and females regarding negligent parenting style. According to Jaiswal and Choudhuri (2017), there is a correlation between academic self-concept and academic achievement, which is positively skewed toward female students (r =0.28) as opposed to male students (r =0.17). In another study, Sen (2018), found that self-concept and academic performance in English for male and female students of urban areas are not significantly different; however, male and female students from rural areas have similar self-concepts but quite distinct performance levels in English. On the other hand, Herrera et al. (2020) focus on academic success, self-concept, and emotional intelligence on a primary level based on two cultural groups (European vs. Amazigh). The study revealed that the self-concept, emotional intelligence, and personality changed depending on the cultural group (European vs. Amazigh). Ivengar et al. (2021) examined the academic achievement and academic self-concept of Indian C.B.S.E. ("Central Board of Secondary Education") board high-school students. According to the findings, there is a positive correlation between academic success and academic self-concept (r=117), and for male students, the correlation is more significant (r=0.125) than for female students (r =0.091). According to Sharma and Sharma, (2021) Sharma and Sharma (2021), there is a significant (P< 0.01) positive relationship between Academic Self-Esteem and Performance. Puertos and Puertos (2022) found that enhancing the students' academic accomplishment in English is essential to improving their academic self-concept and giving them more self-confidence to express their ideas and engage actively in the classroom.

According to the review of the literature, none of the studies have integrated or discussed how learning achievement and self-concept contribute to achieving the SDG (Sustainable Development Goals) – 4, or Education for All – approved by the United Nations in 2015. As a result, a research gap has been addressed in this study by examining how the secondary academic achievement and academic self-concept of Kumbhakar Community students contribute to the attainment of SDG 4. This study aims to thoroughly scrutinize the academic self-perception and success of high-school students hailing from the Kumbhakar community, as it is also a research gap. The objective is to gain a more profound understanding of their challenges while attempting to integrate these aspects into their educational pursuits.

Research Objectives

This study aims to address the following objectives:

1. To assess the academic self-concept level in Kumbhakar Community Students' academic achievement at the secondary level.

2. To compare mean scores of their academic self-concept in academic achievement regarding gender, family type, Residence, guardian's occupation, and guardian's educational qualification.

3. To study the relationship between academic self-concept and academic achievement among the Kumbhakar Community students at the secondary level.

4. To highlight the academic self-concept in academic achievement and sustainable development goals (SDG 4).

Research Hypotheses

In this study, the following hypotheses were formulated:

 H_0 1: There exists no significant difference in the mean scores of academic self-concept in academic achievement of boy and girl students.

 H_0 **2**: There exists no significant difference in the mean scores of academic self-concept in academic achievement of urban and rural school students.

 H_0 **3**: There exists no significant difference in the mean scores of academic self-concept in academic achievement of joint and nuclear family students.

 H_0 4: There exists no significant difference in the mean scores of academic self-concept in academic achievement based on their guardian's occupation.

 H_0 5: There exists no significant difference in the mean scores of academic self-concept in academic achievement based on their guardian's educational qualification.

 H_0 6: There exists no significant relationship between academic selfconcept and academic achievement among the Kumbhakar community students at the secondary level.

Delimitations of the Study

The present study is delimited in the following manner:

• This study is limited to only secondary-level students in the Kaliyaganj block of Uttar Dinajpur district under West Bengal.

• In the current study, the researchers chose only 100 Kumbhakar Community students from three selected secondary schools in the Kaliyaganj block at Uttar Dinajpur district in West Bengal, India, as a sample.

• The present study has been carried out based on some selected demographic variables of the students, like Gender, Course, Stream, etc.

• The investigator collected data using a descriptive method and analysed the data accordingly.

Methods and Participants

Nature of the Study

The present investigation is characterised by a descriptive approach, utilizing a descriptive survey methodology. As a result, the current study used a range of descriptive survey-style tools to gather and assess the data.

Population and Sample of the Study

All the secondary-level students under the Kaliyaganj Block in the Uttar Dinajpur district, W.B. have been treated as the population for the present study. The sample comprised 100 Kumbhakar community secondary level students, acquired from three W.B.B.S.E (West Bengal Board of Secondary Education) affiliated secondary schools located in the Kaliyaganj Block under Uttar Dinajpur district, West Bengal, India. This study utilizes a random sampling technique to ensure adequate representation of all grades and genders of secondary-level students from three selected W.B.B.S.E. schools. First, the current study selected different kinds of secondary schools in the Kaliyaganj block of the Uttar Dinajpur district in West Bengal, India. Then, a random selection of 100 students from the secondary level was made by lottery to obtain exact, objective, and impartial data. The selected sample was mapped using geospatial analysis, illustrated in Figure 1.

Table 1

S.No.	Name of the School	Sample	Boys	Girls
1	Kunoir K. C. High School	40	20	20
2	Tarangapur N. K High School	40	25	15
3	Kaliyaganj Parbati Sundari High School	20	15	5
Total		100	60	40

Distribution of the Sample.



Figure 1. The Location Map of the Area Under the Current Study Shows the Distribution of Samples Collected from the Respective Education Institutes.

Figure 1 and Table 1 depict the representation of examined samples representing Kumbhakar community students (under current study) obtained from secondary schools (Table 1) from the Kaliyaganj block of the Uttar Dinajpur district in West Bengal, India.

Tools Used For The Study

For the current study, one self-constructed questionnaire was employed to analyse secondary school students' academic self-concept to investigate their academic achievement.

Scale on Academic Self-Concept (ASCQ)

To evaluate the academic self-concept of secondary-level learners in the Indian context, especially in the Bengali language, the researchers created a new scale. Before developing the Academic Self Concept Scale, the researchers reviewed a few instruments in this field based on the Likert Five Point Scale, from 1 to 5, much like those employed in earlier studies by Ghazvini (2011); Bustos et al. (2015); Garcia et al. (2018); Guerrero-Barona et al. (2019); Herrera et al. (2020); Cortazar and Calvete (2022). Considering all these aspects, the current study created a revised version of the Academic Self-Concept Scale and reverse scoring was used for harmful items. Then, a pilot survey was conducted on 50

secondary school students (who were not included in the final survey) before completing the scale and its questions for try-out and item analysis. At the 0.01 level, significance was observed for each item. The final scale was created with 11 items that were subdivided into four dimensions: self-regulation (3 items), intellectual abilities (3 items), self-motivation (3 items), and creativity (2 items). The scale was found to be a useful tool for predicting academic self-concept and success in school. Four items on this scale were negative, while seven were positive. The Cronbach Alpha was calculated to determine the internal consistency of the test items. The Academic Self-Concept Scale's assessed score of Cronbach's Alpha was 0.88, which suggests the instrument has excellent internal consistency.

Academic Achievement

To measure the academic achievement of the Kumbhakar community students at the secondary level, they were directed to report the percentage of total marks obtained in their final examination of the previous academic year. This method was similar to that used in previous studies by Bhat (2013); Gupta (2014); Emmanuel et al. (2014); Gunasekar and Pugalenthi (2016) Jaiswal and Choudhuri (2017); Herrera et al. (2020); Iyengar et al. (2021); Puertos and Puertos (2022).

Results of the Study

This study examines the academic self-concept and academic achievement of secondary-level students from the Kumbhakar community. Therefore, what is the academic self-concept level of Kumbhakar community secondary-level students? and how does academic self-concept influence their academic achievement? What is the contribution of academic self-concept to sustainable development goals (SDG 4)? Answers to these questions are discussed below.

In Table 2, the demographic information of the sample is presented. The study involved 60% boys and 40% girls, as well as family type and school location. The study included 91% of nuclear family students and 9% of joint family students. It was also decided to study 80% rural students and 20% urban students. Additionally, the occupation of the guardian, as well as their educational background, were included in the demographic variables. In the study, 38% of guardians were from business, 54% from farming, and 4% from the service sector background. A total of 46% of guardians were below the M.P. level, 26% were at the M.P. level, 16% were at the H.S. level guardians, and 12% were graduate-level guardians.

Table 2

Demographic Information of the Students.

Demographics	Sample (%)			
Gender				
Boys	60 %			
Girls	40 %			
Family Type				
Nuclear	91 %			
Joint	9%			
Residence				
Rural	80%			
Urban	20%			
Guardian's Occupation				
Business	38%			
Farmer	54 %			
Service	4%			
Guardian's Educational Qualification				
Below MP	46%			
MP	26 %			
H.S	16 %			
Graduation	12 %			
N-100				

Level Of Academic Self-Concept Of The Kumbhakar Community Secondary Level Students Regarding Academic Achievement

Table 3

Mean, SD of the Level Of Self-Concept.

Group	Number	Mean	SD
Secondary Level Students	100	66.82	10.93

For determining the level of self-concept, the current research has employed the basic normal distribution principle as given in Table 3 (Garrett, 2017; Mangal, 2002).

M±
$$\sigma$$

M + σ =66.82 +10.93 = 77.75
M - σ = 66.82-10.93= 55.89

Table 4

Estimated Levels of Academic Self Concept of Kumbhakar Community Students at the Secondary Level.

Scores	Percentage	Level of Academic Self-Concept And Academic Achievement
≥ 77.75	31.80%	High
Between 55.89 to 77.75	51.00%	Moderate
≤ 55.89	17.20%	Low
Total	100%	

Based on the results in Table 4, it can be observed that out of the total 100 Students, 31.80% of students have scored above 77.75, 51.00 % of Students have scored between 55.89 to 77.75, and 17.20% of students have scored below 55.89 on the level of academic Self Concept of Kumbhakar Community Students at Secondary Level. Therefore, most students (51.00 per cent) scored between 55.89 and 77.75, indicating the level of self-concept is moderate with academic achievement among Kumbhakar community secondary level students.

Testing of H0₁ **Based on Gender (Male & Female)**

Table 5

Mean, SD and t-Test Regarding Different Demographic Variables.

Demographic		Ν	Mean	SD	df	MD	SED	t	Sig.
Variables			(111)						
Condor	Boys	60	107.30	11.05	00	1.25	1.92	0.65	0.05 *
Gender	Girls	40	106.05	6.11	90				
Family	Nuclear	91	107.64	8.70	00	0.20	2 15	2.04	0.05 *
Туре	Joint	9	98.33	12.10	90	9.50	5.15	2.94	0.05
Pasidanca	Rural	80	104.21	7.79	79 08	12 02 1	1 06	6.60	0.05 *
Residence	Urban	20	117.15	8.01	20	12.90	1.90	0.00	

MD: Mean Difference SED: Standard Error





Figure 2. Research Model of Academic Self-Concept on Academic Achievement of Kumbhakar Community Students. (Source: Primary data collected by Researcher, 2023)

Table 5 and Figure 2 shows that the t-value is 0.65, which is not significant at a 0.05 level with 98 degrees of freedom (df). This indicates that academic self-concept in academic achievement does not differ significantly. Thus, the null hypothesis is accepted, implying the result is not significant. Further, the mean score of academic self-concept in academic achievement of male students, (107.30) is significantly higher than that of female students, whose mean score is 106.05. Therefore, it can be said that male students were found to have significantly higher academic self-concept in academic achievement compared to female students.

Testing of H0₂ based on Family Type (Nuclear and Joint)

Data in Table 5 and Figure 2 shows that the t-value is 2.94, which is significant at a 0.05 level with 98 degrees of freedom (df). This shows that academic self-concept in academic achievement differs significantly. Thus, the null hypothesis is not accepted, and it implies the result is significant. Further, the mean score of academic self-concept in academic achievement of nuclear family students is 107.64, which is significantly higher than that of the joint family students, whose mean score is 98.33. Therefore, it can be said that nuclear family students were found to have significantly higher academic self-concept in academic self-con

Testing of H0₃ based on Residence (Rural and Urban)

Results in Table 5 and Figure 2 show that the t-value is 6.60, which is significant at a 0.05 level with 98 degrees of freedom (df). This shows that academic selfconcept in academic achievement differs significantly. Thus, the null hypothesis is not accepted, and it implies the result is significant. Further, the mean score of academic self-concept in academic achievement of urban students is 117.15, which is significantly higher than that of rural students, whose mean score is 104.21. Therefore, it can be said that urban students were found to have significantly higher academic self-concept in academic achievement compared to rural students.

Testing of H0₄ based on their Guardian's Occupation

Table 6

Summary of the Mean and S.D. in Academic Self-Concept Based On The Guardian's Occupation And Guardian's Educational Qualification.

Variables	Ν	Mean	SD
	Business	38	106.47
Guardian's Occupation	Farmer	54	106.81
	Service	8	108.25
	Below MP	46	105.57
Guardian's Educational	MP	26	108.00
Qualification	H.S	16	106.63
	Graduation	12	109.08

Table 7

The Significant Mean Differences Regarding Academic Self-Concept Based on Guardian's Occupation and Educational Qualification.

Result of ANOVA based on their Guardian's Occupation								
Sum of S	F	Sig.						
Between	Within	Between	Within	0.117	NS			
Groups	Groups	Groups	Groups					
20.878	8683.122	10.439 89.517						
Result of ANOVA based on Guardian's Educational Qualification								
170.619	8527.971	56.873	88.833	0.64	NS			

From Table 6, 7 and Figure 2, it can be observed that the calculated F-value is less than the critical value at the 0.01 level of significance. Therefore, the null hypothesis failed to be rejected at both levels of significance. Hence, it can be interpreted that there is no significant mean difference among secondary-level students based on their guardian's occupations concerning their academic self-concept.

Testing of H05 based on their Guardian's Educational Qualification

From the above Table 7 and Figure 2, it can be observed that the calculated Fvalue is less than the critical value at a 0.01 level of significance. Therefore, the null hypothesis failed to be rejected at both levels of significance. Hence, it can be interpreted that there is no significant mean difference among secondarylevel students based on their guardian's educational qualifications concerning their academic self-concept.

Testing of H0₆: Relationship Between Academic Self-Concept And Academic Achievement.

From Table 8 and Figure 2, it can be observed that the calculated value of 'r' is 0.208 is significant at a 0.01 level of significance. The value shows a low positive correlation between academic self-concept and academic achievement among the secondary level students in the Uttar Dinajpur, W.B. district, India. Hence, the null hypothesis is rejected, and it can be said that when one's academic self-concept is high, that student's academic achievement will also be high.

Table 8

Showing the RelationshipBetween Academic Self-Concept and Academic Achievement Among the Kumbhakar Community Students.

Variables	Ν	′r′	Table Value		Sig.	Interpretation	
Academic	100	0.208	0.088	at	0.05	p<0.01	Low
Self-Concept			Level				Positive
Academic			0.115	at	0.01		Correlation
Achievement			Level				

Figure 3 shows that the Self-Concept implication has recently been a part of Target 4.1 of Sustainable Development Goal 4. Indicator 4.1.2 of Target 4.1 has been matched and represents how to enhance Self-Concept through SDG 4 (Sustainable Development Goals, n.d.). Similarly, indicators 4.5.1 of target 4.5 and 4.7.1 of target 4.7 have just been matched with academic self-concept



Figure 3. Enhancing Academic Self-Concept and Academic Achievement through Sustainable Development Goal 4.

(Goal 4). Hence, all these (Goal, target, indicators) summarised in the above diagram, fulfil the goal and objectives of the study.

DISCUSSION AND CONCLUSION

It was found that the level of academic self-concept in academic achievement of Kumbhakar community students is moderate. It is also found that 31.8% of students' self-concept level is high, 51%Students' Self-Concept level is moderate and 24.1% of students' self-concept level is low based on their obtained scores. The study revealed that there is no significant difference in secondary level students concerning their academic self-concept in academic achievement based on gender (0.65, p> 0.05) supported by (Agrawal & Teotia, 2015) and contradicted by (Jaiswal & Choudhuri, 2017; Oommen, 2015). However, the male students have comparatively higher academic achievement than the female students based on their obtained mean score. Additionally, the results have shown that there was a significant difference in secondary-level students concerning their academic self-concept in academic achievement based on family type (2.94, p < 0.05), Residence (6.60, p < 0.05) supported by (Agrawal & Teotia, 2015). Also, it was found that there is no significant difference in secondary-level students based on their guardian's occupation (0.117, p> 0.01) and guardian's educational qualification (0.640, p> 0.01) concerning their academic self-concept in academic achievement which was supported by (Gupta, 2014). The study also revealed that low positive correlation (0.208, p<0.01) between academic self-concept and academic achievement in academic achievement among secondary-level students, which was supported by (Ghazvini, 2011; Iyengar et al., 2021; Jaiswal & Choudhuri, 2017; Kumari & Chamundeswari, 2013; Meshkat & Hosseini, 2015) and contradicted by (Lone & Lone, 2016). Therefore, when one's academic self-concept is high, that student's academic achievement will also be high.

On the other hand, SDG 4 is an important goal to achieve to increase academic self-concept. Academic self-concept is an important measure of academic success and a good indicator of students' mental health (Han, 2021). Therefore, SDG 4 must be actively pursued to ensure future generations' success and mental well-being. The results indicated that there was a positive correlation between the indicators of SDG 4 and academic self-concept. The findings of the study also suggest that academic self-concept can be improved through a better understanding of the indicators of academic performance (Valero-Valenzuela et al., 2021). This can help students identify the Kumbhakar Community's weaknesses and take corrective measures to improve their learning outcomes (Zhao et al., 2022). This, in turn, can help students become more confident and motivated, leading to improved academic performance (Almulla & Al-Rahmi, 2023). Furthermore, educators can use this information to design and implement appropriate interventions to support students' learning (P. Das & Barman, 2023).

As a result of the facts mentioned above, it can be stated that academic self-concept and academic achievement among the school students in the district of Uttar Dinajpur are relatively low and show a moderate degree of self-concept. Regarding self-concept, boys' and girls' students do not significantly vary. Rural school students perform better in terms of self-concept than urban school students. The results of the current study demonstrate a strong positive relationship between academic achievement and self-concept, making it evident that students with high academic self-concept also have high academic achievement. The power of academic achievement would increase if every aspect of this intelligence were vital among students. This would help students' performance and promote a long, healthy life.

In general, the instructor should seek out the causes of the students' troubles after identifying those with low academic success, poor parental environments, and poor self-concept. To overcome challenges, the instructor should maintain a solid rapport with the students' parents and seek their feedback as needed. In other words, the teacher should provide every opportunity for the students to improve their self-concept and academic achievement. We need to expand positively; every field that wants to perform better needs a society with an integrated personality. The need of the hour is for healthful, practical, creative, and inventive education. For secondary-level academic performers to do better in their professional careers and handle challenges, they need a good attitude, a sense of self-worth, self-confidence, and self-esteem (Gunasekar & Pugalenthi, 2016). Additionally, family, school, and society greatly influence a student's self-concept development.

In contrast, the above model (Figure 3) indicates that many barriers have made "Education for All" not fully feasible for students from the Kumbhkar

community. As a result, policymakers should take responsibility for ensuring that the National Education Policy 2020 is implemented properly (P. Das & Barman, 2023). If policymakers work at the local or grassroots level, the implementation will be very strong. They should also ensure adequate resources are provided to the poor and marginalized Kumbhakar community students to take advantage of the educational opportunities.

Further research could be conducted on self-concept and academic achievement among primary and higher-level students from different parts of the country through additional items and more extensive samples. Furthermore, using longitudinal studies could provide further insight into the role of self-concept among the students of the Kumbhakar community in academic achievement.

References

- Agrawal, M., & Teotia, A. K. (2015). Academic achievement and self-concept of secondary level students. *International Education & Research Journal*, 1(3), 26-33.
- Almulla, M. A., & Al-Rahmi, W. M. (2023). Integrated social cognitive theory with learning input factors: The effects of problem-solving skills and critical thinking skills on learning performance sustainability. *Sustainability*, 15, 1-26. https://doi.org/10.3390/su15053978
- Awan, R. N., Ghazala, N., & Anjum, N. (2011). A study of the relationship between achievement motivation, academic self-concept and achievement in English and Mathematics at secondary level. *International Education Studies*, 4(3), 72-79. https://doi.org/10.5539/ies.v4n3p72
- Barai, S. (2020). Contribution of Zamindars in the Socio-Cultural and Educational Life of Uttar Dinajpur. *Journal of People's History and Culture*, 6(2), 32-39.
- Bhat, M. A. (2013). Academic achievement of secondary school students in relation to self-concept and parental encouragement. *International Journal of Recent Scientific Research*, 4(6), 738-741.
- Bustos, V., Oliver, A., & Galiana, L. (2015). Validation of the self-concept form 5 in Peruvian undergraduates: A tool for positive psychology. *Psicologia: Reflexão e Crítica*, 28, 690-697. https://doi.org/10.1590/1678-7153.201528406
- Chevalère, J., Cazenave, L., Wollast, R., Berthon, M., Martinez, R., Mazenod, V., ... Huguet, P. (2023). The influence of socioeconomic status, working memory and academic self-concept on academic achievement. *European Journal of Psychology of Education*, 38(1), 287-309. https://doi.org/10.1007/s10212-022-00599-9

189 | Das et al.

- Cokley, K. (2000). An investigation of academic self-concept and its relationship to academic achievement in African American College students. *Journal of Black Psychology*, 26(2), 148-164. https://doi.org/10.1177/0095798400026002002
- Cortazar, N., & Calvete, E. (2022). Dispositional mindfulness, self-concept and psychological symptoms: Bidirectional predictive associations in children and adolescents. *Behavioral Psychology*, *30*, 359-372.
- Dagnew, A. (2018). The relationship among parenting styles, academic self-concept, academic motivation and students' academic achievement in Fasilo secondary school, Bahir Dar, Ethiopia. *Research in Pedagogy*, 8(2), 98-110. https://doi.org/10.17810/2015.76
- Das, P., & Barman, P. (2023). Does ICT contribute towards sustainable development in education? An overview. *International Journal* of Research Publication and Reviews, 4(7), 544-548. Retrieved from https://www.researchgate.net/publication/372235204
- Das, S. K., Halder, U. K., Mishra, B., & Debnath, D. (2014). Study on the relationship between attitude towards education and academic achievement in secondary level minority students. *Indian Streams Research Journal*, 4(10), 1-6.
- Emmanuel, A. O., Asante, E., Josephine, B., & Forkouh, S. K. (2014). Achievement motivation, academic self-concept and academic achievement among high school students. *European Journal of Research and Reflection in Educational Sciences*, 2(2), 24-37.
- Garcia, F., Martínez, I., Balluerka, N., Cruise, E., Garcia, O. F., & Serra, E. (2018). Validation of the five-factor self-concept questionnaire AF5 in Brazil: Testing factor structure and measurement invariance across language (Brazilian and Spanish), gender, and age. *Frontiers in Psychology*, 9. https://doi.org/10.3389/fpsyg.2018.02250
- Garrett, H. E. (2017). *Statistics in psychology and education*. India: E.B.H. Publishers.
- Ghazvini, S. D. (2011). Relationships between academic self-concept and academic performance in high school students. *Procedia - Social and Behavioral Sciences*, 15, 1034-1039. https://doi.org/10.1016/j.sbspro.2011.03.235
- González-Nuevo, C., Postigo, A., García-Cueto, E., Menéndez-Aller, A., Muñiz, J., Cuesta, M., ... Fernández-Alonso, R. (2023). Grade retention impact on academic self-concept: A longitudinal perspective. *School Mental Health*, 1-11. https://doi.org/10.1007/s12310-023-09573-2
- Green, J., Nelson, G., Martin, A. J., & Marsh, H. (2006). The causal ordering of self-concept and academic motivation and its effect on academic achievement. *International Education Journal*, 7(4), 534-546.
- Guerrero-Barona, E., Sánchez-Herrera, S., Moreno-Manso, J. M., Sosa-

Baltasar, D., & Durán-Vinagre, M. A. (2019). Self-concept and its relation to emotional intelligence and anxiety. *Behavioral Psychology*, *27*, 455-476.

- Gunasekar, N., & Pugalenthi, N. (2016). A study on self-concept and academic achievement of students at secondary level. *Shanlax International Journal of Education*, 5(1), 1-6.
- Gupta, R. (2014). Study on self-concept, academic achievement and achievement motivation of the students. *I.O.S.R. Journal Of Humanities And Social Science*, 19(5), 88-93.
- Herrera, L., Mohamed, M., & L. (2020). Academic achievement, self-concept, personality, and emotional intelligence in primary education. Analysis by gender and cultural group. *Frontiers in Psychology*, *10*, 1-13. https://doi.org/10.3389/fpsyg.2019.03075
- Huang, C. (2011). Self-concept and academic achievement: A meta-analysis of longitudinal relations. *Journal of School Psychology*, 49(5), 505-528. https://doi.org/10.1016/j.jsp.2011.07.001
- Igbo, J. N., Onu, V. C., & Obiyo, N. O. (2015). Impact of gender stereotype on secondary school students' self-concept and academic achievement. SAGE Open, 5(1), 1-10. https://doi.org/10.1177/2158244015573934
- Iyengar, R. G., Gouri, G. P., Kumar, M., & Yanjana. (2021). Academic self-concept and academic achievement of Indian C.B.S.E. school students. *National Journal of Community Medicine*, 12(12), 405-410. https://doi.org/10.5455/njcm.20211127044355
- Jaiswal, S. K., & Choudhuri, R. (2017). Academic self-concept and academic achievement of secondary school students. *American Journal of Educational Research*, 5(10), 1108-1113. https://doi.org/10.12691/education-5-10-13
- Kumari, A., & Chamundeswari, S. (2013). Self-concept and academic achievement of students at the higher secondary level. *Journal of Sociological Research*, 4(2), 105-113. https://doi.org/10.5296/jsr.v4i2.3909
- Li, S., Xu, Q., & Xia, R. (2020). Relationship between S.E.S. and academic achievement of junior high school students in China: The mediating effect of self-concept. *Frontiers in Psychology*, 10, 1-7. https://doi.org/10.3389/fpsyg.2019.02513
- Lone, P. A., & Lone, T. A. (2016). A study on the relation between self-concept and academic achievement among secondary school students of Jammu district. *Journal of Education and Practice*, 7(31), 19-23.
- Mahato, A., & Barman, P. (2019). Academic achievement motivation and academic performance of S.C., S.T. community students in the district of Purulia. *American Journal of Educational Research*, 7(11),

872-877. https://doi.org/10.12691/education-7-11-18

- Mangal, S. K. (2002). *Statistics in psychology and education* (and others, Ed.). PHI Learning Pvt. Ltd.
- Marsh, H., & Martin, A. (2011). Academic self-concept and academic achievement: Relations and causal ordering. *The British Journal of Educational Psychology*, 81, 59-77. https://doi.org/10.1348/000709910X503501
- Meshkat, M., & Hosseini, S. M. (2015). The relationship between academic self-concept and academic achievement in English and General subjects of the students of high school. *International Journal* of Language and Applied Linguistics, 1(Special Issue: Challenges in Foreign Language Teaching in Iran), 1-6.
- Mohajerzad, H., Martin, A., Christ, J., & Widany, S. (2021). Bridging the Gap Between Science and Practice: Research Collaboration and the Perception of Research Findings. *Frontiers in Psychology*, *12*, 1-12. https://doi.org/10.3389/fpsyg.2021.790451
- Oommen, N. M. (2015). Self-concept and academic achievement among students at higher secondary level. *International Journal of Scientific Engineering and Research*, 3(7), 28-30.
- Parker, P. D., Marsh, H. W., Ciarrochi, J., Marshall, S., & Abduljabbar, A. S. (2014). Juxtaposing math self-efficacy and self-concept as predictors of long-term achievement outcomes. *Educational Psychology*, 34(1), 29-48. https://doi.org/10.1080/01443410.2013.797339
- Puertos, L. G., & Puertos, J. D. (2022). Academic self-concept and self-regulation: Predictors of English academic performance. *Psychology And Education*, 1-13. https://doi.org/10.6084/m9.figshare.19407488.v1
- Sen, S. (2018). A study on self-concept and academic achievement in English of secondary school students with special reference to Purba Medinipur. *International Journal of Research and Analytical Reviews*, 5(3), 329-335.
- Sewasew, D., & Schroeders, U. The developmental (2019). interplay of academic self-concept and achievement within and domains among school across primary students. Contemporary Educational Psychology, 58, 204-212. https://doi.org/10.1016/J.CEDPSYCH.2019.03.009
- Sharma, P., & Sharma, M. (2021). Relationship between selfesteem and achievement of secondary school students. XIlkogretim Online - Elementary Education Online, 20(1), 3208-3212. https://doi.org/10.17051/ilkonline.2021.01.361
- Sikhwari, T. D. (2014). A study of the relationship between motivation, self-concept and academic achievement of students at a university in Limpopo Province, South Africa.

International Journal of Educational Sciences, 6(1), 19-25. https://doi.org/10.1080/09751122.2014.11890113

- Valero-Valenzuela, A., Huescar, E., Juan, L. N., Conte, L., Jaime, L., & Moreno-Murcia, J. A. (2021). Prediction of adolescent physical selfconcept through autonomous motivation and basic psychological needs in Spanish physical education students. *Sustainability*, 13, 1-12. https://doi.org/10.3390/ su132111759
- Wahab, A., Ismail, I., Zaid, R., Afsar, Z. A., & Rafique, S. (2023). Effects of depression, aggression, and self-concept on the academic achievement of university students. *Journal of Positive School Psychology*, 7(1), 1427-1439.
- Yang, L., Yan, Z., Zhang, D., Boud, D., & Datu, J. A. (2023). Exploring the roles of academic self-concept and perseverance of effort in self-assessment practices. Assessment in Education: Principles, Policy & Practice, 1-26. https://doi.org/10.1080/0969594x.2023.2191161
- Zhao, L., Li, W., & Zhang, H. (2022). Career adaptability as a strategy to improve sustainable employment: A proactive personality perspective. *Sustainability*, 14, 1-20. https://doi.org/10.3390/su141912889
- Zheng, C., Erickson, A. G., Kingston, N. M., & Noonan, P. M. (2014). The relationship among self-determination, self-concept, and academic achievement for students with learning disabilities. *Journal of Learning Disabilities*, 47(5), 462-474. https://doi.org/10.1177/0022219412469688