Motivational Variables, Academic Self-Concept and Learning Styles as Predictors of Academic Achievement among Underachieving High- Ability Students in Oyo State, Nigeria

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Abstract

The high ability learners do confronted with a lots of problems, especially as it relates to their academic achievement which later resulted into underachievement. Attaining a high level of academic achievement is what every parent or guardian as well as teacher wishes for their children and wards. Thus, this study investigated motivational variables, academic self-concept and learning styles as predictors of academic achievement of underachieving high-ability students in Oyo State, Nigeria. The study adopted the descriptive design of the correlational type. A total of 180 underachieving high ability Senior Secondary School Students in Oyo State were purposively selected from nine schools in three senatorial districts of Oyo State. Instrument used were Students academic record, Slosson Intelligence test (r=0.81), Academic motivation scale (r=0.75); Academic self-concept scale (r=0.75), Learning style questionnaire (r=0.75) and English language (r=0.75) and Mathematics achievement (r=0.65) tests. Data were analysed using multiple regression at 0.05 level of significance. The result revealed that academic achievement had significant correlation with extrinsic motivation (r=0.79), motivation (r=0.27), academic self-concept (r=0.35), auditory learning style (r=0.28), visual learning style (r=0.38) and kinesthetic learning style (r=0.42). The relative contributions of the independent variables revealed that Extrinsic motivation (β=1.215, t=14.066) is the most potent predictor followed by the kinesthetic learning style (β=0.193, t=2.245); motivation (β=-0.093; t=1.085), visual learning style (β=0.066; t=1.491), academic self-concept (β=0.061; t=2.897), intrinsic (β=0.006; t=1.343) and auditory learning style (β=0.005; t=0.078). Motivation is significant in controlling academic underachievement among high ability learners, students should develop an inner enthusiasm and inherent satisfaction or pleasure in learning. Teachers, parents and guardians should organise extra-classes for high ability students in order to increase their academic skills as his is a more effective means to boost their academic self-concept. Also, the teaching styles of the teachers should suit the preferred learning styles of the students to correct the underachievement patterns in them.

Introduction

Students attend schools so that they would acquire the knowledge that would lead to their academic achievement. This academic achievement results in the mental liberty and social freedom thereby ensuring a good living in the present and future of the high ability students and the nation as a whole. Academic achievement can be described as the major purpose of schooling from the crèche to the tertiary level. Academic achievement of students, especially at the secondary school level is not only a pointer to the effectiveness or otherwise of schools but a major determinant of the future of youths in particular and the nation in general (Muraina and Oydeyi, 2014).

Attaining a high level of academic achievement is what every parent or guardian as well as teacher wishes for their children, wards and students. Academic achievement is generally regarded as the display of knowledge attained, or skills developed in the school subject. It is the level of performance in school subjects as exhibited by an individual. Test scores or marks assigned

by teachers are indicators of this achievement. It is the school's evaluation of the pupils' class work as quantified on the basis of marks or grades. It is the expectation of every society and every school that their high-ability students make significant and outstanding positive contributions to their society. This perhaps is the reason why most countries of the world deliberately identify and nurture their high-ability students with the aim of making them positive contributors and agents of development. Nigeria is not an exception among these nations. The Nigerian government's major objective in respect of the education for all students is to provide opportunities for them to learn and become patriotic citizens and particularly for high-ability students to develop their talents, and natural endowments/traits in the interest of the nation's economic and technological development (FGN, 2004).

No Child is Left Behind (NCLB) (2002) considered the high-ability individuals as children or youths who give evidence of high capability in areas such as intellectual, creative, artistic, leadership or specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities. However, some high ability students who show great academic promise fail to perform at a level commensurate with their previously documented abilities, frustrating both parents and teachers (Whitmore, 2006). This poor academic achievement can be referred to as academic underachievement which is generally conceptualized as a severe discrepancy between a student's expected achievement and his or her actual achievement (Reis and McCoach, 2000). An underachieving high-ability student is a student who demonstrates high-ability in his or her area of identification, but does not perform at that level in the classroom- (an underachiever falls short of fulfilling their potential). Underachievement is an area of concern to parents, teachers and counselors as they can see the child's possibilities occasionally.

To be classified as an underachiever, the discrepancy between expected and actual achievement must be the direct result of a diagnosed learning disability. Underachieving high-ability students are those who exhibit superior scores on measures of expected achievement (standardized achievement test scores or cognitive or intellectual ability assessments). Sousa (2002) posited that underachievement is a behaviour, and not an attitude or set of work habits. Behaviour changes over time can be more directly modified. Also, Delisle and Berg (2000) noted that underachievement is content and situation specific, that is, those who may not be successful at school, for example, are often successful in outside activities such as sports, music or after- school jobs. Therefore, underachievement can be seen to be concerned with subject areas or domains. For example, a student may be performing below expectation in Mathematics or Science. Apart from any serious physical, mental or emotional issue, underachievement can be caused by some psychological/ personal factors. A combination of factors both in the home and at school can cause underachievement. Gallagher (1991) also contended that personal/ psychological factors can cause underachievement in high- ability students. Some of these psychological/ personal factors are low motivation, low academic self-concept and ineffective learning styles.

Motivation has received much attention from many researchers with different psychological and philosophical perspectives in different fields of study, especially psychology and education due to its significant effect on students' learning, persistence and academic

achievement. It has been operational sized from the perspective of different theoretical approaches over the past decades. For instance, Maslow, 1970 (in Coetzer, 2011) described human motivation from both intrapersonal and environmental perspectives as the driving force that causes people to work towards a goal and is essentially the power of hierarchy of human needs. Pintrich and Schunk (2002) also observed that motivation can be described from a cognitive perspective, as "the process whereby goal-oriented activity is activated and sustained". Overall, motivation is the psychological process that arouses, directs, and sustains a person's behaviour (that is, an internal or external force that is acting on or within a person that directs him/her to engage in a goal-oriented behaviour and maintains that behaviour). It can be noted that motivation is one of the basic factors for academic performance. It is described as "the cognitive, emotional, and behavioral indicators of students' investment in and attachment to education" (Tucker, Zayco and Herman, 2002). Motivation is also known as an academic engagement that affects student's academic performance.

When high-ability students engage in learning tasks in which they are motivated intrinsically, they tend to exhibit a number of pedagogically desirable behaviours including increased time on task, persistence in the face of failure, more elaborate processing and monitoring of comprehension, selection of more difficult tasks, greater creativity and risk taking, selection of deeper and more efficient performance and learning strategies, and choice of an activity in the absence of an extrinsic reward. Moreover, intrinsic motivation is related to the self-perceptions of the competence of underachieving high-ability students, to whether they are motivated by curiosity or by grades, and to whether their orientation towards academic achievement can be characterized as a mastery orientation. Researchers have found that although achievement, ability, and perceived competence each contributes to students' desire to learn, intrinsic motivation is more complex than the additive effects of these domains. When students see themselves as capable of doing well in school, they tend to value academic work more than students who do not see themselves as capable of doing well, but these expectations of success also influence short term strategy use, thereby inhibiting or augmenting achievement. It is likely that students must feel comfortable with their academic work, must be challenged to achieve, and must expect to succeed before the development of intrinsic motivation can begin (Eccles, Wigfield and Reuman, 2008).

Intrinsic motivation, extrinsic motivation and a motivation plays a prominent role in the academic achievement of underachieving high-ability students. A higher level of motivation in learning has consistently been linked to a reduction in the number of underachievement and to increase levels of students' success. In an academic setting, whether it be elementary, secondary or higher education, a student's motivation for learning is generally regarded as the most common determinants of academic achievement. Mnyandu (2001) asserted that both intrinsic and extrinsic motivation, are prerequisites to academic achievement. The author considered it imperative that educators acquire a broad understanding of these different forms of motivation in order to help high ability learners to make use of the specific type of motivation that will facilitate his or her success in achieving the set goals. Coetzer (2011) posited that motivation should also include a combination of effort plus desire to achieve the goal of learning with

favourable attitude towards learning. For a student to be motivated to learn, all of these elements have to be linked to achieve the academic goal. Mnyandu (2001) has indicated that there exists a positive relationship between intrinsic motivation and academic achievement.

Self-concept is the set of attributes, abilities, attitudes, and values that an individual believes define who he or she is (Berk, 2000). Self-concept is divided into academic self-concept and non-academic self-concept. Academic self-concept is defined as the individual's assessment of his or her ability to learn in the school context in comparison to relevant others in the school (Fin and Ishak, 2012).Academic self-concept represents how students feel about themselves as learners in school contexts and has implications for both student achievement and well-being. As a measure of students' confidence in their abilities, it informs their opinions about not only their current tasks and school-related activities, but also their future goals and academic aspiration.

Red, Brooks and McGarvey (2001) posited that academic self-concept is an individual's perception of his or her level of competence or ability within the academic realm. Similarly, Trautwein, Ludtke, Marsh, Koller, and Baumert (2006) suggested that academic self-concept is a person's self-evaluation regarding a specific academic domain or ability. Academic self-concept involves a description of one's perceived academic abilities. Academic self-concept encompasses global beliefs of self-worth associated with one's perceived academic competence. Academic self-concept is a multi-dimensional construct that involves both internal and external comparisons. Students compare their own performance with that of their classmates (an external comparison), as well as with their own performance in other areas (an internal comparison). Social comparison theory suggests that when people compare favourably to those around them in a particular domain, they are more likely to maintain high self-concepts in that domain. Therefore, high-ability students should maintain high academic self-concepts because their academic abilities compare favourably to those of their fellow students. There is an evidence to suggest that high-ability students possess higher academic self-concepts than the average students especially when they are placed in mixed-ability or heterogeneously grouped classes or schools (Marsh, Chessor, Craven and Roche, 2004).

Educational psychology has been concerned with analyzing different types of relationships, both associative and predictive, that exist between self-concept and academic achievement. Academic self-concept is a significant predictor of academic achievement (Marsh, Chessor, Craven and Roche, 2005). Research suggests that as much as one-third of the variance in achievement can be accounted for by academic self-concept alone. Furthermore, positive self-concept appears to be linearly related to subsequent academic achievement (Marsh et al., 2005), although a flow of causality for this relationship has not been established. Previous literature suggests that underachievers often exhibit low academic self-concept or low motivation (Dowdall and Colangelo, 2002). The academic self-concept and motivation of high-ability students reflects upon their academic achievement as they exhibit individual differences in their preferences to employ different phases of the learning cycle. This now bring us to the study of the learning styles of the underachieving high-ability students as it relates to the self perception of their self-competence.

Learning styles refer to common ways that an individual learn. Everyone has a mix of learning styles, that is,

everyone has a mixture of strengths and preferences. No one has exclusively one single style or preference. One's preferred learning styles guide the way one learns. They also change the way one internally represents experiences, the way one recalls information, and even the words one chooses. Remali, Ghazali, Kamaruddin and Kee (2013) has confirmed that learning style is how a student deals with his or her study approaches through perception towards his or her surroundings and how they can adapt the task given into producing good end result. Kolb and Kolb (1985) asserted that the concept of the learning style describes individual differences in learning based on the learners' preference for employing different phases of the learning cycle. Deryakulu, Buylkozturk and Ozanar (2009)suggested that learning styles are the cognitive, affective, and physiological behaviours that perform as relatively stable indicators of how people perceive, interplay with, and respond to their environment in learning situations Curry (2000) postulated that learning styles are individual consistencies in perception, memory, thinking, and judgment across any stimulus condition.

Learning styles are inborn character traits. They have effects on each moment and dimension in the life of an individual. They affect individuals while walking, lying down, sitting, talking, playing, writing and individuals carry out these actions according to this trait (Baydak, 2006). Determining the learning styles of individuals and arranging their learning mediums will undoubtedly increase their success (Dunn & Dunn, 2002). Learning style is the method with which students learn best. The perception of a student, his/her relationship with other people and the cognitive, auditory and physiological structures that affect his/her behaviour define the learning style. There is no good or bad learning style. What matters is to arrange learning activities that are in accordance with the learning style of the student. If the learning styles of individuals are determined, it can be better estimated as how they can learn and what kind of a learning activity should be applied. Thus, the teacher can prepare mediums that are suitable primarily for themselves and secondarily for their students (Sunbul, 2004).

Literature have confirmed that learning style preference refers to the premise that people learn in different ways .Underlying the concept is the idea that people learn more effectively and efficiently when they can take advantage of their preferred ways of learning. Rayneri, Gerber, and Wiley (2006) also asserted that understanding individual learning styles may be crucial to dealing with underachievement. They concluded that learning style plays a role in classroom achievement and until teachers understand the needs and learning styles of high-ability students and make efforts to appropriately differentiate the curriculum, underachievement and unfulfilled potential will continue to be a problem in classrooms. In the light of the above background, this study finds it a matter of urgency and educational need to investigate the relationship (associative and predictive) existing between motivational variables, academic self-concept and learning styles as they relate to the academic achievement of underachieving high-ability students.

Statement of the Problem

The academic achievement of students is an important indicator of the academic success in school. However, some high ability students who show great academic promise fail to perform at a level commensurate with their previously documented abilities, frustrating both parents and teachers. Underachievement is an area of concern for parents,

teachers and counselors as they can see the child's possibilities occasionally, they are given a glimpse of the brilliance, but then it is gone, replaced by a wall of apathy or seeming unconcern. Some high-ability students exhibit a discrepancy between their potential (or ability) and performance (or achievement) thereby demonstrating negative abilities and low achievement in one school subjects or the other. It has however been noted that some cognitive and psychological factors contribute to academic success or otherwise of high-ability students. Factors commonly associated with academic under-achievement among high-ability students includes intrinsic and extrinsic motivation, motivation, academic self-concept and learning styles.

Research Questions

1. What is the joint contribution of the independent variables – Intrinsic motivation, Extrinsic motivation, Academic self-concept and Learning styles to academic achievement among underachieving high-ability students?
2. What is the relative contribution of the independent variables- Intrinsic motivation, Extrinsic motivation, Academic self-concept and Learning styles to dependent variable of academic achievement among underachieving high-ability students?
3. What is the relative contribution of a motivation (negative motivation) to Academic achievement among Underachieving high-ability students?

Methodology

The research adopted the descriptive design of the correlational type to explore the prediction of academic achievement from motivational variables, academic self-concept and learning styles among underachieving high-ability students in Oyo State. In other words, it measured the level at which the independent variables predict the academic achievement among underachieving high-ability students. The study measured the strength of associations among independent variables and dependent variables using multivariate correlations. This involves studying the situations as they are without any form of manipulation of the variables of interest. The population of the study comprised all underachieving high-ability students in senior secondary schools in Oyo state.

The sample for this study consisted of 180 underachieving high-ability Senior Secondary School Students in Oyo state. The sample of nine Secondary schools were selected in three Senatorial Districts in Oyo state using purposive sampling techniques while twenty underachieving high-ability senior secondary school students were selected from each of the schools.

A multi-dimensional approach were used to identify underachieving high-ability students. The following instruments were used in gathering data for the study:

i. Students' Academic Record (To screen for underachieving high-ability students).
ii. Slosson Intelligence Test (SIT) (To screen for high ability students).
iii. Academic Motivation Scale (AMS) by Vallerand et al., (1992). (This is a standardized instrument that were used in measuring intrinsic and extrinsic motivation and amotivation among the respondents).
iv. Self- description Questionnaire (SDQ-III): A measure of academic self-concept by Marsh (1999).
v. Learning Styles Questionnaire were used to assess the learning styles of the students.

vi. English Language Achievement Test (ELAT) and Mathematics Achievement Test (MAT) for the dependent variables of academic achievement.

All the instruments used in this study were adopted except for Mathematics Achievement Test (MAT) and English Language Achievement Test (ELAT) which were adapted and revalidated. The data collected from this study were analysed using Multiple regression analysis. All the hypotheses were tested at 0.05 level of significance. Pearson product moment correlation was employed to establish the relationship between the independent and dependent variables.

Results

Three research questions were answered using correlation and multiple regression analyses.

Research Question 1: What is the relationships that exist among extrinsic motivation, intrinsic motivation, amotivation, academic self-concept, auditory learning style, visual learning style and kinaesthetic learning style on academic achievement among underachieving high-ability students.

Table 1: Summary of Correlation Matrix showing the Relationship between the Independent and Dependent variables among Respondents

	1	2	3	4	5	6	7	8
Extrinsic	1.000							
Intrinsic	0.015	1.000						
Amotivation	0.284**	-.012	1.000					
Self-concept	0.265**	0.043	0.567**	1.000				
Auditory	0.211**	0.023	0.426**	0.752**	1.000			
Visual	0.422**	-.026	0.486**	0.550**	0.502**	1.000		
Kinaesthetic	0.456**	-.078	0.331**	0.189*	0.243**	0.617**	1.000	
Academic achievement	0.789**	0.073	0.266**	0.353**	0.276**	0.380**	0.424**	1.000

Note: ** Significant at p<0.01 *Significant at p<0.05

The results from the Table 1 showed that academic achievement had significant correlation with extrinsic motivation (r= 0.79), motivation (r = 0.27), academic self-concept(r = 0.35), auditory learning style (r = 0.28), visual learning style (r = 0.38) and kinaesthetic learning style (r = 0.42) of the respondents. However, intrinsic motivation (r = 0.07) is not significant with academic achievement.

Research Question 2: What is the joint contribution of extrinsic motivation, intrinsic motivation, amotivation, academic self-concept, auditory learning style, visual learning style and kinaesthetic learning style on academic achievement among underachieving high-ability students?

Table 2: Summary of Regression Analysis of the combined Prediction of Academic Achievement among Participants by the Seven Independent variables

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.812	0.659	0.646	3.40304

Summary of Regression (ANOVA)

	Sum of Squares	Df	Mean Square	F	P	Remark
Regression	3856.125	7	550.875	47.568	0.000	Sig
Residual	1991.875	172	11.581			
Total	5848.000	179				

Table 2 showed a coefficient of R of 0.81 and R^2 as 0.65. This means that 64.6% of the variance in the academic achievement among participant is accounted for by all the seven variables. The table also shows that the analysis of variance for the regression yielded a F-ratio of 47.57. This implies that the joint contribution of the independent variables to the dependent variables was significant and that other variables not included in this model may have accounted for the remaining variance.

Research Question 3: What is the relative contribution of extrinsic motivation, intrinsic motivation, amotivation, academic self-concept, auditory learning style, visual learning style and kinaesthetic learning style on academic achievement among underachieving high-ability students?

Table 3: Relative contribution of the independent variable to the dependent variable (Test of significance of the Regression coefficients).

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	13.900	1.872		7.425	0.000
	Extrinsic	1.215	0.086	0.726	14.066	0.000
	Intrinsic	0.006	0.005	0.060	1.343	0.181
	Amotivation	-0.093	0.086	-0.061	1.085	0.280
	Selfconcept	0.061	0.021	0.228	2.897	0.004
	Auditory	0.005	0.065	0.005	-0.078	0.938
	Visual	-0.066	0.044	-.0103	-1.491	0.138
	Kinaesthetic	0.193	0.086	0.139	2.245	0.026

Table 3 reveals the relative contribution of the seven independent variables to the dependent variable, expressed as beta weights. Using the standardized regression coefficient to determine the relative contributions of the independent variables to the explanation of the dependent variables extrinsic motivation (β = 1.22, t= 14.07) is the most potent contributor to the prediction followed by the kinaesthetic learning style (β = 0.19, t=2.25) followed by amotivation (β = -0.09, t = 1.09) followed by visual learning style (β = -0.07, t = 1.49), academic self-concept (β = 0.06, t = 2.90), intrinsic (β = 0.01, t = 1.34) and auditory learning style (β = 0.01, t= 0.08).

Discussion of Findings

Direct relationship exists between intrinsic motivation, extrinsic motivation amotiviation academic self-concept, learning styles and academic achievement among underachieving high-ability students. Findings from the study show that the joint relationship of the independent variables on the dependent variable is significant. Deci and Ryan's (2001) study confirmed that there exists a positive relationship between intrinsic amotivation and

academic achievement. Giving credence to the findings of this study, Cokely, Bernard (2001), confirmed that the role of intrinsic motivation as predictors of academic achievement is significant. Areepattamannil and Freeman (2008) insisted that students who are more extrinsically motivated experience greater anxiety and a poorer ability to cope with failure. This is confirmed by the results of this study as the underachieving high ability students possess a high level of anxiety and a poor ability to cope with failures in their academic endeavor. The findings of this study indicate that a significant correlation as found between extrinsic motivation and academic underachievement among underachieving high-ability students. This result is in consonance with previous studies (Barron and Harackiewicz, 2001, Elliot and McGregor, 2001) who found that students who are particularly focused on the extrinsic consequences of their behaviours will do partially well on objective indicators of performance. On another hand, Dornbusch, Ritter, Leiderman, Robertsn and Fraleigh (2007); Ginsburg and Bronstein (2003) found that students who reported a desire for easy work and aim to please their teachers performed worse on both standardized tests and in regular classroom assessment. The findings of this study indicated that some underachieving high-ability students are mostly extrinsically motivated therefore, their performance falls below expectation in one or more school subjects. This contradicts the report of the study by Arrepattaqnmannil and Freeman (2008) which contended that there is a weak correlation between academic achievement and motivational variables.

The findings from the study also indicated that amotivation correlates negatively with academic achievement among underachieving high ability students. Therefore, when amotivation is high, academic achievement among high-ability students decreases. Research in the area of motivation and underachieving high-ability students has focused on the relationship between amotivation and academic achievement of these students. This study confirms that the underachieving students who is motivated lacks motivation which could be due to frequent and repeated exposure to controlling strategies, for example, including students to learn by promising punishment if they did not. The findings of this study is consistent with the notion that amotivation is on the opposite side of the continuum in comparison to intrinsic motivation. The finding is corroborated by the report of Ryan and Deci (2000) that stated that an amotivated student lacks intentionally in his or her academic behavior.

There is a significant relationship between academic self-concept and academic achievement among underachieving high-ability students. The findings of this study confirmed that a high-ability students' needs a good academic self-concept in order to be successful academically. Vialle, Heaven and Ciarrochi (2005) also supported that a positive academic self-concept leads to desirable behaviour for high-ability students while a negative self-concept equates undesirable outcomes. Some of the participants of this study (underachieving high-ability students) affirmed that they have trouble solving some mathematical problems even though they are good at most academic subjects. The findings of this study confirmed that some underachieving high-ability students possess a negative mathematics academic self-concept due to failures or low performance; they lose their self-confidence in respect of learning. Lui's (2010) study supported the findings that students in the lower ability-level had a significantly lower perceived academic self-concept than

their average and high-ability counterparts. The results showed that there is a significant relationship between auditory learning style and the academic achievement among underachieving high-ability students. The study by Dunn, Beaudry and Klavas (2009) affirmed that both low and average achievers earn higher scores on standardised achievement and aptitude tests when they are taught within the realm of their learning styles. A study carried out by Chong-Cheng (2008) concluded that students retain 10.0% of what they read, 26.0% of what they hear, 30.0% of what they see, 50.0%n of what they see and hear, 70.0% of what they say, and 90% of what they say as they do something. Dunn and Dunn (2002) affirmed that underachieving high-ability students tend to have poor auditory memory. Although they often want to do well in school, their inability to remember information through lecture, discussion, or reading causes their low achievement especially in traditional classroom environment where teachers dominate and students mostly listen or read.

The results showed that there is a significant relationship between visual learning style and academic achievement among underachieving high ability students. In a study by Delisle (2002), students' performances have increased when learning and teaching suits their learning styles. In the findings of this study, some participants affirmed that written numbers problems or words are easier for them to remember than spoken or orals ones. The study of Thompson and McDonald (2007) corroborated the findings of this study that underachieving high ability students in essay assignments were teacher constructed. When assignments were student-constructed, the underachievers turned in a creative project that evidenced "his commitment to self-selected tasks and choice in assignment endeavours".

The result also showed that there is a significant relationship between kinesthetic among underachieving high ability students. The study conducted by Chon-Cheng affirmed that students retain what they read, hear, see, see and hear, say, and what they say as they do something. This study corroborated the findings of this study as some of the respondents indicated that they understand what they learn well when they are involved in the practical aspect and creative work with their hands. However, the study by Kagan and Kagan (2007) contradicted the findings of this study when they asserted that underachieving high –ability students are impulsive and they show poor academic achievement in some creative work.

Conclusion

Academic underachievement among high-ability students has created a situation of great concern for parents, guardians and teachers. Hence, there is urgent need to address the issues causing academic underachievement. The need to put an end to inconsistencies between potential and ability in the performance of high-ability students should be the concern of professionals in the field of education. This is necessary so as to maximise the academic potential of the individual students and the nation in general. Intrinsic and extrinsic motivations are related to the perceptions of the competence of underachieving high-ability students. They need to possess the desire to learn to be motivated by the internal drive to excel or by the desire to gain the approval of parents, guardians and peers.

Furthermore, students who have been exposed to frequent and repeated controlling strategies for example inducing students to learn by promising punishment if they did not, often experience a loss of enthusiasm to learn

resulting in amotivation. For example, if an underachieving high-ability student fails an examination, the amotivated students will ascribe the failure to a lack of ability over which he or she has no control, rather than to factors that he or she has control over. Thus, these students accept the situation and believe that there is nothing that they can do to change, improve or to rectify it. Also students with negative academic self-concept often underachieve because of his or her perception of his or her level of competence or ability within the academic realm. This study showed that academic self-concept functions as a significant predictor of students' academic achievement. From this study, it is evident that learning styles also influence how students learn and each student learn differently from each other. However, a combination of the learning styles leads to academic achievement.

As a result of the afore-mentioned reasons, the researchers noted that the teacher of the high-ability students should create awareness of the importance of motivation and academic self- concept of the underachieving high-ability students through counselling and developing their interests by creating a sense of good valuation in these students. The underachieving high-ability students should also be guided by teachers through the employment of appropriate learning styles to suit the learning materials.

Recommendations

Intrinsic motivation is significant in controlling academic underachievement among underachieving high-ability students. Therefore, it is recommended that underachieving high-ability students should develop an inner enthusiasm and inherent satisfaction or pleasure in learning. Parents, teachers and guardians of high-ability students should help the students to develop a sense of future ambition that should be stream-lined in setting of goals in the academic endeavour. The underachieving high-ability students would endeavour to please their parents, guardians, teachers and peers when they perform well in their study. Thus, the development of extrinsic motivation in the underachieving high-ability students would enhance their academic achievement.

Also government should introduce grants and scholarships into the schools to encourage or assists students whose performances are above average. Thus, the high-ability students would desire to excel to their utmost ability and potential. Teachers, parents and guardians should also reduce the use of punishment as control measures so as to reduce amotivation among underachieving high-ability students.

Teachers, parents and guardians should organise extra-mural classes for high-ability students in order to increase students' academic success as this is a more effective means to boost their academic self-concept. Also school authorities, principals, teachers, parents, guardians and the public should build good values into students' scholastic experiences by providing role models that exhibit good morals in the academic and behavioural patterns. This can be done by inviting community members into the classroom. Such individuals can tie the school curriculum to their career activities.

Moreover, teachers should guide the use of appropriate learning styles by the underachieving high-ability students. The teaching style of the teachers should suit the preferred learning style of the students to correct their underachieving patterns.

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