

Predicting Academic Achievement Motivation: Possible Selves of Undergraduate Students in Selected Universities in Kenya

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Abstract The role of motivation in enhancing students' academic achievement cannot be gainsaid, more so intrinsic motivation. International discourses attribute students' academic achievement to their perceived possible selves. However, most studies on possible selves have largely been conducted among students in high schools outside Africa. Thus, the concept of possible selves remains under-researched in the African context. This study investigated possible selves of undergraduate students from selected universities in Kenya. It explored possible selves' differences between male and female students, private and public universities, and profession-vowed Catholic students versus those that are not. The study sampled 167 students in five universities; two public universities and three private universities. Questionnaires were piloted to 31 students and validated by experienced educational psychologists. The reliability of the questionnaires, measured using the Cronbach statistic, was 0.78. The study found higher achievement possible selves among female students than male students. Students in both public and private universities held similar possible selves for achievement; however, female students had higher physical health possible selves than male students. Higher physical health possible selves were also found among students from private universities than in public universities. However, there was no significant difference in possible selves' between students who were profession-vowed Catholics (fathers, brothers, and sisters) and the non-profession vowed students. Implication arising from the findings is that universities can build on the relatively high achievement possible selves of students to enhance their academic achievement. Universities may use the findings to interrogate student motivation hence improve academic advising accordingly.

Keywords: *academic achievement, feared-for possible selves, hoped-for possible selves, motivation, possible selves*

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1. Introduction

University education is viewed by many young people as a gateway to a better future- good jobs, high earnings, independence and good social standing in the society. Such beliefs become strong predictors of young people's academic achievement at the university. Consequently, young people hold high ambitions, on the one hand, and perceived fears about the consequences of not achieving these ambitions. Therefore, preparing university students for the future is an important role for universities amidst the growing level of competitiveness and the rapid rate of change in the job market. In order to effectively perform this role, universities have to, among other things, understand the intrinsic and extrinsic motivators of students' pursuit for university education. One of such factors is students' perceived possible selves.

Possible selves, conceptions of self in the future, incorporate future goals into self-concept [1]. Ideally, they are mental representations of what people hope to become, expect to become, or fear becoming in future [2,3]. Thus, possible selves are viewed positively and negatively. Negatively, they are feared- that is selves that people want to avoid, while positively, they are hoped for- personal goals that provide incentives for specific behaviors. Indeed, [2] argues that a person's perceived possible self is a powerful motivator to performance, regardless of whether it instills enduring hope of becoming or fear of not becoming in the person.

Studies suggest a positive correlation between possible selves theory and academic achievement [4]. This correlation is echoed by [5] who opine that individuals with high hopes and expectations for academic success and fear academic failure are more likely to achieve higher than their counterparts. For instance, a study by [6] found that students with a clear construction of their

possible selves exhibit higher levels of task persistence and school achievement. Similarly, [7] found that students who with a positive academic future self are likely to show academic improvement. The foregoing demonstrates that possible selves' conceptions are relevant in understanding motivation and self-regulatory processes, including academic achievement. Thus, this study sought to predict academic achievement by describing the possible selves of students of higher learning in selected institutions in Kenya. Possible selves have been studied heavily in Western countries but quite scantily in Africa.

Motivation holds the key to understanding human behavior [8]. According to [9], academic motivation is an important concept in classroom learning and is linked to increased levels of academic achievement. A student who is academically motivated is seen as self-determined to succeed in academic work [10]. In the last thirty years, achievement motivation has been studied extensively. Much of this research has, however, exclusively been in Western countries, hence, need for a study that investigates possible selves of students studying in universities in Africa.

A comparative study by [11] is perhaps the closest to this need. In investigating possible selves of East African students living in the United States, the study found significant differences in racial ethnic identity, academic goal orientations and motivation between East African students and African Americans in the United States. They also found that the more East African students lived in the United States the more balanced their possible selves became. However, as pointed out, the study targeted students in universities outside Africa. Thus, the dearth of African literature and in particular, Kenyan, on undergraduate student possible selves, prompted the current study. The current study was guided by the following research questions:

1. What are the dominant possible selves of students in universities in Kenya?
2. Are there gender differences in students' possible selves when they are categorized by gender?
3. Are there differences in students' possible selves when universities are categorized as public or private?
4. Are there differences in students' possible selves when they are categorized as profession-vowed Catholic students and those who are not?

In particular, the study investigated possible selves based on students' gender, type of university attended, and religious lifestyle and their effect on students' academic achievement at university. Religious lifestyle was dichotomized into profession-vowed Catholic students and non-profession vowed students. Profession-vowed Catholic students comprised religious workers namely fathers, brothers and sisters whose pursuit for higher education may not be triggered by the desire for employment, getting married or becoming independent. The study investigated students' perceived possible selves for achievement, interpersonal relationships, personality traits, material and lifestyles, physical and health-related categories.

Understanding the possible selves of students in Kenyan universities has implications to faculty, counselors, administrators and Ministry of Education, Science and Technology. Firstly, the latter can use the results to enact

relevant policies in higher education and education at large. Secondly, faculty, administrators and counselors can use findings of the study to interrogate student motivation and improve academic advising accordingly. Finally, the close similarities between Kenya and other African countries means that the findings may prototypically, generate discourses on student achievement in other African countries.

2. Literature Review

2.1. Empirical Review

Imagining what is possible for one's future can increase optimism, but articulating a possible self is not enough to produce sustained effort and behavior change. For that to occur, possible selves need to be linked with specific strategies [12]. Strategies are concrete behavior actions such as studying, planning ones day or setting an alarm clock. Strategies help one to focus on goals while anticipating and planning for setbacks by developing plans of action and fall back plans. In one study, by the end of the school year, students whose school-focused possible selves included detailed strategies reported feeling more efficacious; results were not limited to positive feelings, according to school records, students with strategies attained better grades than those without them [12].

Possible selves is therefore, a motivational construct that examines the extent to which individuals think about and conceptualize what their future holds and the extent they create strategies to act on their future goals. The possible selves theory has been used successfully cross-culturally [13], and has been shown to be a strong predictor of academic success [4,14,15], and persistence [6]; and is relevant to young people who spend a lot of time thinking about their future [16]. The construct has been used with students as a motivation tool. Reference [17] asked students to think about and describe their hoped-for possible selves, expected selves and feared possible selves. They then set goals, create plans and work towards their goals. Results revealed that students in the possible selves condition scored significantly higher than students in the control group on measures of goal identification.

Possible selves have been found to develop in three processes; (a) construction of possible selves, based on past experiences and future ideas (b) developmental context and (c) social context [18,19,20]. Past failure in an area makes one less likely to generate many strategies whereas past success in a domain makes one believe it is attainable. It also makes it possible for one to not only picture how success would look like but also to develop strategies to achieve the possible selves. College students and young adults are focused on occupational, educational, and interpersonal possible selves. Socially, some contexts provide easy access to role models and reminders to focus on school while other contexts rarely provide appropriate cues. As social origins ones historical and sociopolitical backgrounds serve to develop a sense of self. For example, the social context can provide role models that would be constant reminders of school while others do not. The presence of role models or lack thereof would then originate positive or negative educational possible selves.

This happens as one navigates through school, relationships and negotiates on positive and negative selves. Thus, whereas college students focus on educational, career and relational possible selves, the young and middle adults focus on parenting and family possible selves. Physical health becomes an important focus thereafter in late adulthood.

Although, according to the Control theory, people work to maintain existing identities, possible selves have been found to be unstable. Reference [21] found that important possible selves are fluid and unstable when adolescents receive discrepant feedback. They interpreted this instability to mean that the adolescents were still exploring their identities as they received feedback that was different from current views. Age studies have suggested that there are differences in possible selves as far as number, content and dynamics are concerned [22]. According to [23] a majority of the oldest of people are limited by their own health declines which constrain them from achieving their goals. Above all, the awareness of deaths' closeness and eminence seems to reduce the future foresight thus influencing their goal orientation.

This study compared students from public and private higher institutions of learning. The intention was to examine if there were differences in possible selves between them. Reference [24] found differences in identity styles between girls who schooled in private and those who schooled in public institutions. A study by [25] showed that religious commitment was a factor in academic success among African American males. Moreover, studies suggest that academic possible selves are affected by racial and gender stereotypes [1,26]. According to [27], girls are more likely than boys to value their hopes, to think of these as likely to come true and to be motivated by them. Reference [28] hold that girls attain ego-development milestones earlier than boys hence they may be both more concerned about future selves and concerned at earlier ages than boys. In addition, girls tend to work harder than boys in their studies and participate in a wider range of curricular and co-curricular activities [29]. This is because they perceive effort to be more important than ability while boys perceive ability to be more important than effort [30,31]. On the contrary, boys seek successful experiences hence they spend significantly more time thinking about their negative possible selves; strategizing about how to avoid the realization of these negative possible selves [30,32].

Private and public schools have been compared in past research. Possible selves of private and public institutions of higher learning students have also been compared. For example, researchers have found a positive correlation between attending private Catholic high schools and school performance. Moreover, [33,34] found that attending private Catholic schools raised the probability of graduating from high school and attending college. Studies by [35] and [36] revealed higher performances among students who attended Catholic high schools than those who attended public high schools.

Several studies have been done to examine gender differences in possible selves. They found that adolescent males defined themselves in material possession terms while females defined themselves in relationship terms [35,37,38]. They also found that males had more lifestyle

fears than females. For example adolescent males feared being homeless and poor while females mainly feared losing relationships. Other studies have described the value females attach to relationships [36,37,39,40].

Studies further show that open-ended measures of possible selves elicit different sets of individual responses [6,41]. Reference [42] found that college students' responses to open-ended measures of possible selves ranged from simple one-word descriptions to elaborate and clear descriptions of both hoped-for and feared possible selves. Reference [19] indicated the strengths of the open-ended measure as allowing participants to describe their possible selves without constraint and that the format is easily adapted to different groups and contexts.

Possible selves balance has also been extensively studied. These studies have suggested that (a) a vivid, concrete positive possible self that includes academic success can motivate present school behavior and result in achievement; and (b) while students may be motivated by both positive and negative features of their possible selves, the optimal motivational circumstance may occur when students' expected possible selves include desired features (e.g. school achievement) that mitigate against the occurrence of the feared possible self-features (e.g. criminality and unemployment) [43]. For example, [44] researched balance among delinquency among youth. He found that non-delinquent youth had a better balance between their expected and feared possible selves than delinquent youth. Reference [41] posited that balance occurs when expected possible selves are offset by countervailing feared selves in the same domain and that without balance between expected and feared selves in important domains, both initiation and maintenance of delinquent activity are more likely. Reference [7] observed that students who had positive academic future selves were more likely to show improvement in academics. Indeed, when students are actively engaged, positive academic possible selves can also be increased leading to significant change in school behavior, grades, and depression [13].

2.2. Theoretical Underpinning for the Study

The present study employs the possible selves theory to understand student motivation. The theory posits that images developed through one's own social context, past and anticipated experiences motivates one's behavior or performance. As such, it holds that one's achievement, whether in academic or other field is a correlate of the hopes and/or fears the individual constructs about the future. Reference [45] supports this stance by arguing that one's choices and actions to promote desirable selves while inhibiting less desirable selves are contingent upon the self-impression s/he develops. Nonetheless, the higher the cognition of the desired or less desired self, the higher the motivation to choose goals that require overcoming significant obstacles [46]. Furthermore, [2] posit that possible selves are individual goals, fears and threats that are a natural extension of a cognitive approach to the study of the self- concept. They further argue that possible selves are important not only because they function as incentives for future behavior but also because they

provide an evaluative and interpretive context for the current view of self. According to [43], many students could benefit from interventions that integrate an achievement-oriented academic identity with a positive social group identity and harmonize those identities with achievement oriented goals [43].

Thus, the possible selves construct is a useful tool for predicting future projections of selves especially among adolescents who seek their identity at this point. They can improve one's ability to self-control and self-regulation by focusing on the hoped-for goals and lessening the influence of distractions in one's social world. Indeed [47] contend that individuals learn about what is possible and what is valued through engagement with their social context. In relation to motivation, possible selves determine the direction of change and motivate one to take action in order to realize the hoped-for goals and to prevent the realization of the feared visions. In most circumstances, individuals endeavor to reduce the gap between their present and future positive possible selves while increasing the gap between their present and future negative possible selves.

The possible selves theory's greater contribution is its focus on the students motivational power and emphasis to the impact that a student's self-definition has on school behavior [43]. Since Reference [2]'s seminal paper, this theory has been widely used to study student motivation. For the current study, the theory helped in understanding the aspirations of students and how these aspirations are configured.

2.3. Conceptual Framework for the Study

Figure 1 presents a dichotomy of students' possible selves and how they predict the students' achievement outcomes. The figure presumes that students' possible selves, whether "hoped-for" (such as hope to complete studies, get employed, pursue further studies, be more knowledgeable or improve one's social status) or "feared-for" such as fear of failing exams, fear of being jobless, and fear that student's sponsor may withdraw support) influence students' motivation to achieve in academics.

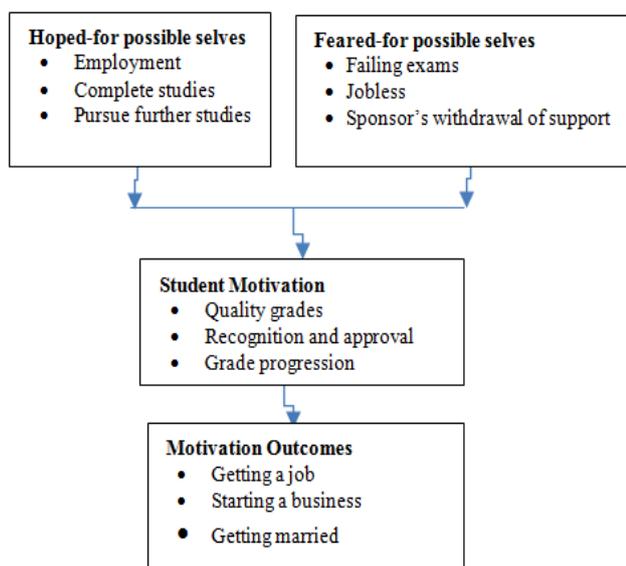


Figure 1. Possible selves of students from selected universities in Kenya

The motivators of students include scoring quality grades, being recognized/approved for exceptional performance, and progressing from one level (year of study) to the next. These achievements are evident through such outcomes as completion of studies, getting employed, starting a business, getting married and becoming independent.

3. Methodology

3.1. Participants

The study targeted students in five universities within Nairobi County, Kenya. Two public universities and three private universities were sampled. A total of 167 undergraduate students; 76 males and 91 females were sampled from these universities using convenient sampling. Out of this sample size, 45 were professionally-vowed Catholic students comprising Catholic fathers, brothers and sisters

3.2. Measures and Instrumentation

A Possible Selves Questionnaire by [48] and a self-report open-ended questionnaire were utilized. The questionnaires were piloted to 31 students in three of the targeted universities who were later excluded in the actual study. The questionnaires were then validated by subjecting them to thorough scrutiny by experienced educational psychologists. Their constructive feedback and responses were then used to improve the content of the questionnaire prior to actual data collection.

Cronbach's alpha was computed to determine the internal consistency of the questionnaires that had binary response and Likert scale statements. The questionnaires had an overall alpha statistic of 0.78 [0.82 (achievement), 0.73 (material and lifestyle), 0.71 (physical health), 0.93 (interpersonal relations) and 0.7 (personal traits)]. Most researchers recommend an alpha equal to or greater than 0.70 as an acceptable measure for internal consistency of items (De Vellis, 2003; Nunnally, 1978). Thus, the questionnaires were adopted for the study.

The questionnaires consisted of demographic information including gender, age, school year and whether or not they were professionally-vowed Catholics or not. For the first part of the questionnaire the respondents were asked to think about and list four hoped-for images. Subsequently, they were asked to list the activities they thought were relevant for achieving the hoped-for selves. The second part asked respondents to think about and list four images of what they feared that they might become in the future, and what they were doing to avoid the feared selves. The two parts were counterbalanced among participants to see where avoidance strategies matched the requirements of the stated possible selves. Possible selves were double coded and inter-rater agreement was found to be 85% (all disagreements were discussed to agreement points). Balance was assessed by counting the number of connections between students' positive and negative possible selves in same domains.

Following the procedures utilized by [1,41] and [48], students' positive and negative possible selves were coded

into six categories (achievement, interpersonal relationships, personality traits, material and lifestyles, physical and health-related, and negative) and balance was assessed by tallying the number of connections between students' positive and negative possible selves in the same domain.

4. Results

4.1. Demographic Information

Our first question asked the participants to offer biographical personal information. This included gender, age, school year and whether or not they were catholic fathers, brothers or sisters. The demographic distribution of the participants is presented in Table 1, Table 2, Table 3, and Table 4.

Table 1. Distribution of Participants by Gender

Gender	University Type					
	Private		Public		Total	
	f	%	f	%	f	%
Male	52	31	25	15	76	46
Female	63	38	27	16	91	54
Total	115	69	52	31	167	100

Table 2. Distribution of Participants by Year of Study

Year of Study	University Type					
	Private		Public		Total	
	f	%	f	%	f	%
First	38	23	0	0	37	23
Second	38	23	39	23	74	44
Third	23	13	7	4	31	19
Fourth	16	10	6	4	22	14
Total	115	69	52	31	167	100

Table 3. Distribution of Participants by Religious Lifestyle

Religious Lifestyle		University Type					
		Private		Public		Total	
		f	%	f	%	f	%
Profession-vowed Catholics	Male	17	10.2	0	0	17	10.2
	Female	28	16.8	0	0	28	16.8
Others		72	43	50	30	122	73
Total		117	70	50	30	167	100

Table 4. Distribution of Participants by Age

Age Bracket	University Type					
	Private		Public		Total	
	f	%	f	%	f	%
16-20	21	13	32	19	53	32
21-25	37	23	19	11	56	34
26-30	29	17	0	0	29	17
31-35	29	17	0	0	29	17
Total	116	70	51	30	167	100

As shown in Table 1, more female (54%) than male (46%) undergraduate students participated in the study. In terms of their year of study at university (see Table 2), there were 38 first year students, 77 second year students, 30 third year students and 22 fourth year students. Table 3 shows that out of the total 167 participants, 45 (27%) were profession-vowed Catholic students (Catholic fathers, brothers or sisters), with 28 (16.8%) females and 17 (10.2%) males. As shown in Table 4, the students ranged from age 18 to 35, with a mean age of 20.7.

4.2. Results of the Study

The aim of the study was to explore inter-relationships among gender, school categories' types and balances of possible selves among Kenyan students in institutions of higher learning. The results showed that most students (135; 81%) had more achievement possible selves followed by those who had personal traits (37; 27%). Another 33 students (24%) had both physical health and material/lifestyle possible selves 21 students (12.6%) had interpersonal relations possible selves.

Table 5. Independent Sample Test for Achievement Scores for Male and Female Students

Group						95% CI for mean Difference	t	df
Male			Female					
M	SD	n	M	SD	n			
.76	.43	76	.85	.36	91	-.202, .038	1.356	165

To test possible selves' gender differences, an independent sample t-test was performed by comparing the mean consistency scores of possible selves and gender (see Table 5). The t- test failed to revealed that female students had higher possible selves (M= 1.44, s = 1.318) than did male students (M = 0.86, s = 1.027). Similarly, female students had higher possible selves for achievement (M= 0.85, SD= 0.363) than did male students (M=0.76, SD=0.428), t (165) = 1.36, p = 0.18. These results suggest that students' possible selves have an effect on their academic achievement scores.

On testing private and public university student possible selves, students from private universities had higher possible selves (M = 1.72, s = .451) than did those from public universities (M=1.56, s = .0504), t (165) = 1.72, p = 0.09.

As shown in Table 6, similar results were noted for interpersonal relations possible selves (M= 1.76, s = 4.36 for public universities and M= 1.68, s = 0.469 for private universities), personal traits possible selves (M= 1.70, s = 0.461) from private universities and (M= 1.68, s = 0.475 from public universities), and material/lifestyle possible selves (M = 1.30, s = 0.467 from public universities and M = 1.78, s = 0.413 from private universities). However, a statistically significant difference was found in physical health possible selves among from private universities (M=1.79, s = 0.415) than in public universities (M= 1.66, s= 0.474).

A t-test for independent samples failed to reveal a significant difference in achievement between participants that were profession-vowed Catholics- fathers, brothers

and sisters ($M= 0.82$, $SD=.387$) and those who were not ($M= .80$, $SD=.399$). Hence no differences were found for

achievement possible selves between students who were profession-vowed Catholics and those who were not.

Table 6. Independent Sample Test for Achievement, Interpersonal Relations, Personal Traits, Material/Lifestyle and Physical Health Scores for Students in Public and Private Universities

Outcome	Group						95% CI for mean Difference	t	df
	Public			Private					
	M	SD	n	M	SD	n			
Achievement	1.56	.050	52	1.72	.451	115	-.242, .017	1.72	165
Interpersonal Relations	1.76	4.36	52	1.68	.469	115	-.180, .095	.609	165
Personal Traits	1.68	.475	52	1.70	.461	115	-.082, .220	.904	165
Material/Lifestyle	1.30	.467	52	1.78	.413	115	.235, .476	5.83	165
Physical Health	1.66	.474	52	1.79	.415	115	-.223, .040	1.37	165

5. Discussion and Conclusions

First and foremost, the results showed that most students had more achievement possible selves than the other possible selves parameters. This finding resonates with previous studies that showed that students with positive academic possible selves are likely to significantly improve their academic achievement [1,7]. This implies that students in universities in Kenya place a high value to their academic success than to other parameters such as interpersonal relations, personal traits, material and lifestyle, and physical health.

Secondly, the results depicted no gender differences in overall possible selves scores for male and female students. However, a statistical difference was found in the achievement score portion for male possible selves scores in achievement scores and female possible selves achievement scores. Indeed, female students exhibited higher achievement possible selves than male students. Contrary to the relatively dated finding that adolescent males and females define themselves in material possession terms and relationship terms respectively [35,36,38], the study findings parallels relatively current findings that that girls are more likely than boys to value their hopes, hence tend to work harder in their studies to think of these as likely to come true and to be motivated by them [27,29].

Thirdly, the results showed no significant difference between possible selves parameters of students from public universities and private universities except for physical health possible selves. Students in private institutions were found to have significantly higher physical health possible selves. Given that the participants were relatively young (mean age =20.7), the converse of this finding resonates with Smith's (2001) view that older people are limited by their own health declines which constrain them from achieving their goals. This affirms the view that young people, a cluster for university students, are likely to have higher physical health possible selves. However, no studies have compared the physical possible selves of students in public and private universities.

Finally, the findings revealed no differences in achievement possible selves between students who were profession-vowed Catholics and those who were not. Although this finding contradicts previous finding that

showed that religious commitment was a factor in academic success among African American males [25], no study had so far investigated the possible selves of students whose pursuit for higher education is not motivated by concerns for employment or independence. This finding therefore sets the stage for further interrogation of this phenomenon.

From the foregoing discussion, several conclusions are drawn. First, most students in universities in Kenya have more achievement possible selves than other possible selves parameters. Second, female students have higher achievement possible selves than male students in universities in Kenya. Third, students in both public and private universities hold similar possible selves for achievement; however, female students had higher physical health possible selves than male students. Finally, achievement possible selves of students in universities in Kenya are not predicated on their religious lifestyle namely being profession-vowed Catholic versus those who are not.

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