# A Wager on Curriculum Delivery: Examining Effects of Sports Betting on Students' Learning Process in Public Secondary Schools in Mumias- East Subcounty, Kenya

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Effective curriculum delivery is the vital link that connects the goals of a national curriculum and realization of the intended outcomes. However, this can be challenging when other factors, such as betting are equally competing for the learners' attention. This study was conducted to investigate the effects of students' involvement in sports betting on learning process among secondary schools in Mumias-East Sub-County, Kenya. The study examined five aspects of the learning process, namely; class attendance, concentration in class, completion of assignments, conducting personal studies and academic performance. A causal-comparative design was used. Respondents included 369 students, 206 parents and 21 class teachers obtained by stratified random sampling. Data was obtained by use of questionnaires. Results of a t-test revealed a significant difference in means of the learning process scores between students involved in betting and those who did not bet, with t (367) = -9.994 and p<0.001 at  $\alpha$ = 0.05. Students involved in betting had lower of concentration in class, were more distracted from doing personal studies, had higher failure to complete school assignments on time, and a more declining academic performance than those who did not bet. However, sports betting had no effect on school attendance. The study recommends that schools should establish strategies to address betting involvement among students as well as phone and internet access and use; that the government should reinforce gambling regulation and legislation to curb betting involvement by school-going students; that there be inclusion of betting awareness in school curriculum; and that awareness campaigns be done among the public on the proliferation of sports betting and its implications on students and entire society.

*Keywords:* Academic performance, assignments, class attendance, concentration, personal studies

## Introduction

The rising fascination of youths in sports betting in Kenya is alarming. According to Geo-Poll (2017) survey, Kenyan youths are at the top of the list in sports betting involvement in the entire Sub-Saharan Africa. This has precipitated an outcry among parents and society at large. Nyambura (2017) described it as a grip of "sports betting fever". Of more concern however, is that some of these youth gamblers are of school going age, and this may affect their learning. With the growing addiction to smartphones among young people, not only is passion for gambling ignited, but schoolwork engagement is also compromised (Enwereuzor, Ugwu, & Ugwu, 2016). A study by Cosenza and Nigro (2015) found that adolescent gamblers experienced mental distortions, and could not properly visualize their future. Such "cognitive distortions" may encumber students' learning process, hence compromising on curriculum uptake.

The learning situation in class requires creation and sustenance of the learner's attention. To boost learner attention, some researchers have proposed use of methods and materials that arouse learners' interest. Asgari, Ketabi, and Amirian (2018) examined "the effect of using interest-based materials on learners' performance in reading". This was in light of the concern that student performance in English language was low. The study investigated if selecting and using interest-based instructional materials could impact learners' performance in reading. It also examined whether there were meaningful differences between male and female learners' performance concerning the use of interest-based materials. Sixty first-year university students comprising of 28 males and 32 females majoring in nursing, from a nursing college in Iran participated in this study. They employed questionnaires and achievement tests to collect data.

The study found that using Interest-Based Language Teaching improved the attention and performance of learners in reading. Participants gender and interest also had some influence on performance in language learning. This finding informs the theoretical underpinning of the current study, though in a converse manner, that when attention is fractionalized, performance dwindles. While Asgari et al. (2018) focused on learning among university students in Iran, the current study focuses on secondary school students in Mumias, Kenya. In Bangkok, Thailand, Wichadee and Pattanapichet (2018)conducted a study on "enhancement of performance and motivation through application of digital games in an English language class". It focused on finding out how use of digital games influenced learning, motivation and performance of students. A quasi-experimental design involving two groups of participants was used. Digital games were employed in teaching learners in the experiment group. The other group received instruction using lecture method. Instruments involved in the study for data collection were pre-tests, post-tests and questionnaires.

The study found that the experimental group got greater test scores. The learners taught using video games were more motivated towards learning than the one which was taught conventionally. Additionally, it was indicated that learners' improved concerning use of digital games in learning of languages. This study showed that use of digital games can increase the attention and performance of learners, as difficult or boring subject content can be converted to become easier, more interesting and enjoyable. While this study in Thailand focused on how to increase attention using a quasiexperimental design, the current study in Kenya investigated whether and how students' divided attention between betting and learning affects the learning process, and used a causal comparative design.

Involvement of students as well as their participation in the learning process are crucial issues in institutions of learning. Heaslip, Donovan, and Cullen (2013) observed that application of student response systems in learning process in Ireland had become more common as teachers determined to improve learner engagement, performance and learning experiences. Student response systems were being associated with increased student participation, yet not many studies had been done to examine why this was so. They therefore investigated the influence of student response systems on learners' engagement in classes that were large.

The study used action research approach, which

comprised of two cycles. Quantitative as well as qualitative data were collected through tests and interviews. 120 participants who comprised of students in universities participated in the study. Tests were administered to examine influence of a classroom response system on learner engagement and interactions. It was found that participants of the study found learning to be enjoyable. The study recommended educators to use student response systems to enhance engagement and participation of learners. This study was based on a population from a university in Ireland. The current study draws its population from secondary schools in Kenya.

Mahofa, Adendorff, and Kwenda (2018)did a study in South Africa on "Exploring the Learning of Mathematics Word Problems by African Immigrant Early Learners". This was to address the concern that early learners who were immigrants from Africa were having challenges relating to word problems in Mathematics. The study objective was to examine how early learners who were immigrants from Africa were handling word problems in Mathematics in South Africa's of Cape. The research method was anchored on philosophy of phenomenology. Ten African immigrant early learners plus five of their teachers were purposively sampled from the targeted population of 1453 pupils plus 52 teachers. Data was obtained through individual interviewing and class observations.

The results indicated that immigrant learners from Africa had challenges coping with the teaching skills of their teachers. They also had inadequate prior knowledge of understanding and solving Mathematics tasks given in prose. The study also revealed that the learners were stigmatized. Switching of codes by the instructors hindered the children's learning of mathematics. It was advised that teachers needed to use groups drawn from different languages, and clear explanations of terms used in Mathematics. It was also recommended that the learners' experiences be utilised as a vital resource, stigmatization as well as switching of codes be minimized. While this study was done in South Africa and was limited to a single subject (Mathematics), the current study is broader in scope as it focuses on the entire learning process, and was done in Kenya.

Apart from the "student factors" examined in the above studies, the "teacher factors" cannot be ignored in the learning process. A research was conducted to examine the implementation of Competence-Based Curriculum (CBC) among secondary schools in Tanzania (Komba & Mwandaji, 2015). It aimed at: examining level to which teachers understood objectives of the CBC; investigating the extent of knowledge and skills of teachers in preparing CBC lesson plans; examining extent to which learners were involved in class learning activities; examining the nature and frequency of student assessment as required by CBC. By random sampling, the participants comprising of 186 secondary school teachers were selected. Data collection was done through document analysis, interviews and observation.

The study outcome revealed that 86% of the participants lacked correct comprehension and mastery of CBC objectives. Furthermore, 78% of lesson plans reviewed lacked a reflection of the qualities of a CBC lesson plan. In addition, teacher observation during lessons revealed that there was low learner involvement in class learning activities. Finally, formative assessment of students by teachers was done in not more than half of the sessions observed in class. The study concluded that there was ineffective implementing of CBC in schools selected. It was therefore recommended that frequent in-service training of teachers to be done so as to equip the teachers with updated and modern skills consistent with the new curriculum. The study vividly showed that teacher factors can affect the learning process and overall curriculum implementation. This finding elucidates the fact that student factors may not wholly account for the outcomes of learning, which is a vital consideration in interpreting and applying the outcomes of the present study that zeroes in on students.

Macharia and Pelser (2012) investigated "key

factors that influence diffusion and infusion of Information, Communication and Technology (ICT) in higher education in Kenya". This was informed by previous studies which had indicated ICT had brought about change from the rudimentary approaches of instruction in higher education. It had also inspired changes in manner of conducting professional and scholarly activities in universities. The researcher applied descriptive research design. Data was gathered by means of questionnaires. Participants consisted of students in Kenyan universities. A total of 1800 students were randomly sampled from 16 universities (both private and public). The study investigated the factors that influenced choice of ICT for use in student learning in process in universities. The study revealed that organizational, individual, environmental, technological aspects were central in ICT infusion and diffusion. Furthermore, influence by particular aspects such as, accessibility of ICT and the character traits of the institutional managers were a key determinant in spreading of ICT in the context of developing countries.

The research generated valuable understanding into the aspects influencing decisions of students on whether to accept or reject technology. It also provided information to help in managing ICT infusion and diffusion in class learning process. It recommended expansion and utilization of technology in learning. However, ICT expansion has been correlated with gambling proliferation (Enwereuzor et al., 2016). The growth of internet technology and smartphones is what has made gambling opportunities more available and accessible to students, and hence the effects. The current study therefore considers this side of the coin with the aim of generating a balanced view of ICT, mobile phones and internet access and use among students in learning institutions.

Efforts to enhance the learning process and classroom interactions in many countries of Africa are hampered by the problem of overcrowding in classrooms. Such classrooms generate dynamics that negate learning strategies. Ngugi and Thinguri (2017) investigated how classroom dynamics were impacting on the social interaction of learners in secondary schools in Kenya. They analysed how dynamics of the classroom socially influenced interactions among students. The key objective of was to have a critical analysis of the issues related to gender and personalities of learners, and how they impacted the class room dynamics in the context of classroom overcrowding. Furthermore, the study was to demonstrate the value of learners participating in the class room activities as well show how teacher's motivation of the unmotivated learner improves learning.

The findings of the research showed that the classroom dynamics that influenced learning in secondary schools in Kenya included: negative media influence, poor teaching approaches and strategies, low motivation levels among learners. Key recommendations made were: Institution managers to make sure that classes are having enough space to amply contain learners so as to allow free teacher movement for easy connection with the students; providing seminars and training to teachers on skills of handling large classes with students of different abilities; Using teaching approaches which can sustain the interest of learners, and ensuring that all learners participate in class. The study restricted its scope on classroom dynamics and how these affect the learning process. Student factors have however also been found to affect the learning process, though were not within the coverage of this study. The current study thus captures this scope of how learner factors, and specifically their attention, affects the learning process.

The ultimate measure of the success of the learning process is the academic performance of the learners. Kulubi (2018) investigated the "factors affecting the academic performance of learners in public secondary schools", informed by the continuous learner performance drops in KCSE examinations between 2014 and 2017. It focused on: determining the influence of teacher motivation on learners' academic achievement; estab-

lishing how resource allocation influences learner achievement; to ascertain the impact of talent development on learners' achievement and examining the impact of competition on academic progress. The research was anchored on the critical theory. Motivation of the teachers, adequate allocation of infrastructural, human and financial resources, developing of students' talents and competition were found to be essential for enhanced learners' academic achievement. While Kulubi (2018) focused mainly on management factors motivation of the teachers, adequate allocation of infrastructural, human and financial resources, developing of students' talents, the current researcher focuses entirely on students, to investigate how their involvement in betting can affect academic achievement which is the ultimate output.

Class attendance has also been investigated as a contributor to academic performance.Isiye (2015) conducted a study on "factors influencing the academic performance of day scholars in public secondary schools in in Mumias-West sub-county of Kakamega county, Kenya". The study was motivated by the concern that students in public day schools were posting poor achievements in national exams than their counterparts in boarding schools. It was grounded on the theory of Blooms Taxonomy of learning. Participants consisted of 18 principals 18 chairmen of Parents-Teachers Association (PTA), 4 zonal education officers and 342 teachers making a total study population of 382. Systematic random sampling was applied to obtain 75 teachers while by purposive sampling, 40 other officers were selected to make a total sample of 115.

The study found that 40.57% of the respondents strongly agreed that students in day schools in Mumias frequently absented themselves from school, while 16.52% of the respondents agreed. The study also found that student absenteeism was one reason for dismal performance in academics in day schools in Mumias. Since then, the Ministry of Education contrived and instituted diverse reforms and policies to curtail student and teacher absenteeism. The current researcher thus sought to study the current status of learners' attendance of school, a key component of the learning process. Isiye (2015) used survey design and did not include students in the research population. Since it is logically inconsistent to study student academic performance while excluding the very students from the study population, the researcher in the current study focused on students, though gathering data from parents and teachers as well.

## **Materials and Methods**

The study was anchored on Kahneman (1973) Resource Theory of Divided Attention. The theory states that when one's attention is divided amongst various stimuli, their cognitive resources are also divided, though disproportionately, with priority given to the stimulus that is stronger or more rewarding. As applied in this study, the theory held that when learners engage in other activities that compete for their attention such as betting, their cognitive resources get divided between learning and the other activities, hence compromising the learning process.

A causal-comparative design was employed, with the aim of comparing the learning process scores of students who betted and those who did not bet. The study targeted 4936 students of Forms II, III and IV of all 22 public mixed day secondary schools in Mumias-East sub-county in Kakamega County, Kenya. Mixed schools were preferred for gender comparison. Stratified random sampling was applied to obtain 2 (out of 5) schools from the sub-urban category and 5 (out of 17) schools from the rural category. This is because the target population had two mutually exclusive groups which comprised of 17 secondary schools in purely rural areas and 5 schools located in fairly urban settings. The researcher therefore classified the schools as rural or sub-urban depending on their proximity to urban settlements and the nature of economic activities in the locality. Consequently, the study constituted a total of 7 schools (31.8%) which took part in this study.

The sample of participants comprised of 378 students and 378 parents obtained by simple random sampling, and 21 class teachers purposively sampled. Data collection instruments were piloted by administering them to a small sample that was representative and identical to, but excluding the targeted group. The instruments were administered at an interval of two weeks using test-retest technique by giving the same instruments twice on the very group of participants. Results were then correlated using Pearson's Correlation coefficient to test for similarity, closeness or strength of association of the two sets of scores. A value of r =+0.896 was obtained with student questionnaires, r = +0.842 with teachers' questionnaires and r =+0.799 with parents' questionnaires. In all cases, there was indication of strong association between the two sets of scores, and thus the instruments were accepted Sedgwick (2012). Validity of the content was checked by seeking for the judgement of authorities with expertise in education and research.

Data collected was analysed quantitatively by frequencies, means and percentages as well as using inferential statistics. An independent samples t-test was performed to compare each of the learning process characteristics of the two groups, that is, those who betted and those who did not bet. This was done under the null hypothesis:

> $H_0$ : There is no significant difference in the means of the learning process scores between students who bet and those who do not bet.

## **Results and Discussion**

The responses on various aspects of the learning process were rated on a scale of 1 to 5, ranging from "Almost always", "Many times", "Sometimes", "Rarely" upto "Never". These aspects included concentration in class, non-distraction from personal studies, completion of assignments, class attendance, and academic performance. Each of the aspects of the learning process was analysed, with the responses of students, teachers and parents compared. These were as below.

## **Class Attendance**

## Table 1

Frequency	and percer	ntage di	stribution	of learner
reading co.	mpetencies	by scho	ol location	n

	Score	S	S	4	e	6	-		
Responde	ntStatement	Z	Z	R	$\mathbf{ST}$	Ш	AA	Ż	SD
Students	I fre-	249	249	65	4	6	10	4.49	0.84
	quently								
	miss								
	classes/schc	ol							
		67.5%	67.5%	17.6%	11.9%	2.4%	0.5%		
Class	Most	S	5	11	4	1	0	3.95	0.74
teachers	students								
	miss								
	classes/schc	ol							
	often								
		23.8%	23.8%	52.4%	19.0%	4.8%	0%		
Parents	My child	0	0	53	27	23	13	3.89	1.26
	misses								
	school								
	often								
		0%	0%0	25.7%	13.1%	11.2%	6.3%		

A statement of whether students missed school frequently was posed. The responses were as presented in Table 1.

N= Never. R= Rarely. ST= Sometimes. MT= Many times. AA= Almost Always.

A total of 249 students indicated that they "Never" missed school or classes while 65 missed "Rarely".

Overall, there was a high school attendance  $\bar{X}$ = 4.49, SD= 0.84). This was confirmed by teachers,

who also reported that there was high class/ school attendance of their learners = 3.95, SD= 0.74). Parents' responses were in agreement with students and teachers concerning high school attendance  $\bar{X}$ = 3.89, SD= 1.26). A t-test was then performed to compare school attendance between students who betted and those who did not. The results showed that there was no significant difference in the means of school attendance scores between students who betted ( $\bar{X}$ =4.27, SD =0.945) and those who did not bet ( $\bar{X}$ =4.28, SD =0.768), with t (367) = 3.259 and p=0.13 at  $\alpha$ = 0.05.

This means that students' involvement in betting had no effect on school attendance. Isiye (2015) found that poor school attendance (absenteeism) was a challenge in public day schools in Mumias, and was responsible for poor academic performance. He further argued that students' academic achievement was intricately tied to the hours they spend attending to school learning processes. This study however found that absenteeism was no longer a challenge among secondary schools in Mumias. This may be as a result of the implementation of the Free Day Secondary Education (FDSE) policy in Kenya, which means that students may no longer miss school due to fees sendoff.

## **Concentration in Class**

A statement of whether students' concentration in class was low was posed. The responses were as presented in the Table 2.

N= Never. R= Rarely. ST= Sometimes. MT= Many times. AA= Almost Always.

A total 147 students, 51 students and 14 students indicated that their concentration in class was low "Sometimes", "Many times and "Almost Always" respectively, totalling to 212 students (57.5%). Teachers similarly indicated that learner concentration in class was low = 2.43, SD= 0.507).

Results of a t-test showed that there was a significant difference in the means of class concentration scores between students who betted (=2.61, SD =0.783) and those who did not bet (=3.81,

#### Table 2

Students' and teachers' responses on whether students had low concentration in class

	Score	S	4	e	7	-		
Respondent	Statement	Z	Z	×	MT	AA	Ż	SD
Students		83	71	147	51	14	3.44	1.10
		22.5%	20.1%	39.8%	13.8%	3.8%		
Class		5	11	4	1	0	3.95	0.81
teachers								
		23.8%	52.4%	19.0%	4.8%	0%0		

SD =1.011), with t (367) = -11.277 and p<0.001 at  $\alpha$ = 0.05. This means that students who were not involved in betting had higher concentration in class than those who betted. Students who bet divide their attention between learning and betting activities, thus compromising their class attention. The learning situation in class requires creation and sustenance of the learner's attention (Asgari et al., 2018). To boost learner concentration, some researchers have proposed use of methods and materials that arouse learners' interest. Wichadee and Pattanapichet (2018) proposed enhancement of class concentration and motivation through application of digital games.

## **Completion of Assignments**

A statement of whether students failed to do and complete school assignments on time was posed. The responses were as presented in Table 3.

### Table 3

Stu	ıde	nts'	and	teache	ers'	resp	onses	on	whe	ther	stu-
der	nts	had	low	conce	ntra	ition	in cla	ıss			
1	1										

	SD	21 1.06				52 0.81					26 1.22				
	×	% 2.2				2.6					% 2.2				
-	AA	30.6			1	4.8%				75	36.4				
7	MT	30.4%			6	42.9%				51	24.8%				
e	R	109			29.5%	8				38.1%	43				20.9%
4	z	22			6.0%	$\mathfrak{C}$				14.3%	26				12.6%
S	z	13			3.5%	0				0%0	11				5.3%
Score	t Statement	I fail to complete	school assignments	on time		Most students fail	to complete school	assignments on	time		My child does not	do school	assignments while	at home.	
	Responden	Students				Class	teachers				Parents				

N= Never. R= Rarely. ST= Sometimes. MT= Many times. AA= Almost Always.

A total of 109 students, 112 students and 113 students reported that they failed to complete school assignments "Sometimes", "Many times and "Almost Always" respectively. This totalled to 334 students (90.5%). The overall students' responses (= 2.21, SD= 1.06) indicated that most students failed to complete school assignments

on time. Similarly, according to parents, most learners were not doing school assignments while at home = 2.26, SD= 1.22).

Figure 3: Students' responses on whether they failed to complete school assignments on time

The results of a t-test showed that there was a significant difference in the means of scores of "timely completion of school assignments" between students who betted (=2.02, SD =0.964) and those who did not bet (=2.66, SD =1.120), with t (367) = 5.620 and p<0.001 at  $\alpha$ = 0.05. This means that students who were involved in betting failed to complete school assignments on time more than those who did not bet. Involvement of students as well as their participation in the learning process are crucial issues in institutions of learning (Heaslip et al., 2013). Class assignments offer one way of involving students in their own learning process, as well as testing understanding and retention of the content taught. Assignments/ homework is an important follow-up to every lesson. As Fan, Xu, Cai, He, and Fan (2017)found in 30-year meta-analysis, 1986-2015, there is a positive relationship between homework and academic achievement among high school students. Timely completion and submission of homework/ assignments is thus a good precursor to a learner's academic success. However, as Guguyu (2016) raised concern "Your Child may be gabling more than doing homework".

## **Conducting Personal Studies**

A statement of whether students were distracted from doing personal studies at home was posed. Responses of students, class teachers and parents were as presented in Table 4.

Only 24 students (6.5%) were "Never" distracted from doing personal studies while at home, while 34 (9.2%) were rarely distracted. A majority (311, 84.3%) were distracted from conducting personal studies at home either "Sometimes", "Many times" or "Almost Always". Overall, there was indication that most students were distracted from doing personal studies while at home ( = 2.56, Table 4

Student, teacher, and parent responses on whether students were distracted from conducting personal studies

Score54321ident StatementNNRMTAA $\overline{X}$ itsI am distracted $24$ $34$ $151$ $75$ $85$ $2.56$ from doingpersonal studies $24$ $34$ $151$ $75$ $85$ $2.56$ from doing $6.5\%$ $9.2\%$ $40.9\%$ $20.3\%$ $23.0\%$ sMost students are01 $9$ $9$ $2$ $2.43$ srsdistracted from $0$ $1$ $9$ $9$ $2$ $2.43$ studies $0\%$ $4.8\%$ $42.9\%$ $9.5\%$ tsWhile at home, my $24$ $46$ $49$ $50$ $37$ $2.85$ tsWhile at home, my $24$ $46$ $49$ $50$ $37$ $2.85$ tsWhile at home, my $24$ $46$ $49$ $50$ $37$ $2.85$ tsWhile at home, my $24$ $46$ $49$ $50$ $37$ $2.85$ tsPersonal studies $2$ $2$ $2$ $2$ $2$ $2$ $2$ tsWhile at home, my		SD	1.13					0.75					1.28				
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Scoreident Statementitsitsititsit <th>N</th> <th>Z</th> <th>24</th> <th></th> <th></th> <th></th> <th>6.5%</th> <th>0</th> <th></th> <th></th> <th></th> <th>0%0</th> <th>24</th> <th></th> <th></th> <th></th> <th>11.7%</th>	N	Z	24				6.5%	0				0%0	24				11.7%
ache aren aren	Score	spondent Statement	udents I am distracted	from doing	personal studies	while at home		Class Most students are	achers distracted from	doing personal	studies		arents While at home, my	child is distracted	from conducting	personal studies	

SD= 1.13). The responses of parents confirmed this distraction = 2.85, SD= 1.280).

The results of a t-test showed that there was a significant difference in the means of scores of "non-distraction from doing personal studies while at home" between students who betted (=3.01, SD =1.077) and those who did not bet (=2.87, SD =0.867), with t (367) = 3.569 and p<0.001 at  $\alpha$ = 0.05. This means that students who were involved in betting were more distracted from doing personal studies at home than those who did not bet. Distractors of students' studies while at home may, apart from betting, also include television watching, entertainment of friends and/ or relatives, social media and weighty domestic chores. This result indicates a possibility that parents were failing to provide a distractions-free environment at home for their children's studies. According to Asgari et al. (2018), the learning situation requires creation and sustenance of the learner's attention with minimal distraction.

## **Academic Performance**

Finally, a statement of whether students' performance in tests and exams was declining was posed. Responses were as presented in Table 5.

N= Never. R= Rarely. ST= Sometimes. MT= Many times. AA= Almost Always.

Only 20% had "Never" experienced a declining academic performance. This low academic performance was also evident through document analysis of examination records, which showed that a majority of learners were below average (scoring 40-50%). Teachers similarly indicated that academic performance of their students was generally declining (= 1.81, SD= 0.75).

The results of a t-test showed that there was a significant difference in the means of scores of academic performance between students who betted (=2.50, SD =0.962) and those who did not bet (=3.77, SD =1.017), with t (367) =-11.29and p<0.001 at  $\alpha$ = 0.05. This means that students who were involved in betting had lower academic achievement than who did not bet. This agrees with the findings of Koross (2016) which indicated that participants involved in betting were often losing school learning time due to gambling, which had adverse consequences on their performance. Isiye (2015) argued that a student's time in school is closely related to their academic performance. But this study finds that, though students' school attendance was high, their academic performance was declining.

According to Miller, Linn, Gronlund, and Linn (2009), performance in tests and examinations is a barometer and lever of reform, because it provides

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data that informs about the current situation and progression of students' achievement plus the degree of excellence of school programs. Such information provides a mechanism and justification for amending and improving educational practices.

## Table 5

Student, teacher, and parent responses on whether students were distracted from conducting personal studies

	Score	S	4	e	7	1		
Responder	nt Statement	z	z	R	MT	AA	X	SD
Students	My performance in	75	94	121	54	25	3.38	1.16
	tests and exams is							
	declining.							
		20.3%	22.5%	32.8%	14.6%	6.8%		
Class	Academic	0	0	4	6	8	1.81	0.750
teachers	performance of							
	students in my							
	class is generally							
	declining.							
		0%0	0%0	19.0%	42.9%	38.1%		
Parents	Academic	90	41	46	56	43	2.7	1.27
	performance of my							
	child is generally							
	declining.							
		43.7%	19.9%	22.3%	27.2%	20.9%		

A t-test analyzing the overall effect of sports betting on learning process revealed that there was a significant difference in the means of the learning process scores between students involved in betting (=21.570, SD =2.579) and those not involved in betting (=25.686, SD =2.87), with t (367) = -9.994 and p<0.001 at  $\alpha$ = 0.05. The null hypothesis (H0) that "There is no significant difference in the means of the learning process scores between students who bet and those who do not bet" was rejected. It was therefore accepted that there is a significant difference in the means of the learning process scores between students who bet and those who do not bet.

## **Conclusion and Recommendations**

This study found that learners involved in sports betting had divided attention between betting and learning process. They had low of concentration in class, high distraction from personal studies while at home, high non-completion of assignments and low academic achievement. explained by Kahneman's theory of divided attention, when one's attention is divided amongst various stimuli, their cognitive resources are also divided, though disproportionately, with priority given to the stimulus that seems stronger or more rewarding. Sports betting promises perceived rewards and incentives that are more immediate, with less cognitive constraints on the individual than the academic process does. The learner thus divides attention between betting and learning, compromising the effectiveness of the learning process and resultant learning outcomes.

The study recommends that: Parents should monitor personal studies of their children while at home to enable them complete school assignments on time; Public betting awareness campaigns should be carried out among members of the society and education stakeholders on both prevalence and effects of betting involvement on young people and entire society; There should be inclusion of betting awareness in the school curriculum. It can be done by integration of the content into already existing subjects. Guidance and Counselling departments in schools should address the challenge of betting proliferation, phone and internet access and use among students, and its entire scope of impact. Further research needs to be done in different geographical locations to determine if the findings of this study hold. Future studies could use snowball sampling technique so as to

only include respondents who are involved in betting for exclusivity and further depth. Involvement in sports betting was found to have negative effects on the learning process. A wager on sports therefore, by a school-going student may actually be a wager on curriculum delivery.

## References

- Asgari, M., Ketabi, S., & Amirian, Z. (2018). The Effect of Using Interest-based Materials on EFL Learners' Performance in Reading: Focusing on Gender Differences. *Iranian Journal of English for Academic Purposes*, 6(2), 1–12.
- Cosenza, M., & Nigro, G. (2015, September). Wagering the future: Cognitive distortions, impulsivity, delay discounting, and time perspective in adolescent gambling. *Journal of Adolescence*, 45, 56–66. doi: 10.1016/j.adolescence.2015.08.015
- Enwereuzor, I. K., Ugwu, L. I., & Ugwu, D. I. (2016). Role of smartphone addiction in gambling passion and schoolwork engagement: a Dualistic Model of Passion approach. *Asian Journal of Gambling Issues and Public Health*, 6(1), 9. doi: 10.1186/s40405-016-0018-8
- Fan, H., Xu, J., Cai, Z., He, J., & Fan, X. (2017, February). Homework and students' achievement in math and science: A 30year meta-analysis, 1986â2015. *Educational Research Review*, 20, 35–54. doi: 10.1016/j.edurev.2016.11.003
- Guguyu, O. (2016). Your Child may be gambling more than doing homework. *East African Standard*. Retrieved 2018-09-28, from www.standardmedia.co.ke /mobile/amp/article/2000226015
- Heaslip, G., Donovan, P., & Cullen, J. G. (2013). Student response systems and learner engagement in large classes:. Active Learning in Higher Education. doi: 10.1177/1469787413514648

- Isiye, C. M. (2015). Factors influencing the academic performance of day scholars in public secondary schools in Kenya: A case of Mumias west sub-county (Thesis). University of Nairobi.
- Kahneman, D. (1973). *Attention and effort*. Prentice-Hall.
- Komba, S. C., & Mwandaji, M. (2015, May). Reflections on the Implementation of Competence Based Curriculum in Tanzanian Secondary Schools. *Journal of Education and Learning*, 4(2), p73. doi: 10.5539/jel.v4n2p73
- Koross, R. (2016). University Students Gambling: Examining the Effects of Betting on Kenyan University Studentsâ Behavior., 4(8), 10.
- Kulubi, M. W. (2018). Factors influencing academic performance of learners in public secondary schools: a case of Mumias West Subcounty (Thesis). University of Nairobi.
- Macharia, P., Jimmy, & Pelser, T. (2012, September). Key factors that influence the diffusion and infusion of information and communication technologies in Kenyan higher education. *Studies in Higher Education*, 39, 695–709. doi: 10.1080/03075079.2012.729033
- Mahofa, E., Adendorff, S., & Kwenda, C. (2018). Exploring the Learning of Mathematics Word Problems by African Immigrant Early Learners. African Journal of Research in Mathematics, Science and Technology Education, 22(1), 27–36. doi: 10.1080/18117295.2017.1390935
- Miller, M. D., Linn, R. L., Gronlund, N. E., & Linn, R. L. (2009). *Measurement and assessment in teaching* (10th ed ed.). Merrill/Pearson. (OCLC: ocn174501624)
- Ngugi, M., & Thinguri, R. W. (2017). A Critical analysis of the impact of classroom dynamics on studentsâ social interaction in secondary schools in Kenya. *European Journal* of Education Studies, 3(1). Retrieved 2020-06-18, from https://oapub.org doi: 10.6084/ejes.v0i0.457

- Nyambura, Z. (2017). Sports betting fever grips Africa. DW. Retrieved 2020-06-18, from https://www.dw.com /en/sports-betting-fever-grips-africa
- Sedgwick, P. (2012, July). Pearson's correlation coefficient. BMJ, 345(jul04 1), e4483–e4483. Retrieved 2020-06-18, from http://www.bmj.com

/cgi/doi/10.1136/bmj.e4483 doi: 10.1136/bmj.e4483

Wichadee, S., & Pattanapichet, F. (2018).
Enhancement of Performance and Motivation through Application of Digital Games in an English Language Class. *Teaching English with Technology*, 18(1), 77–92. Retrieved 2020-06-18, from https://eric.ed.gov/?id=EJ1170635