Learning Strategies Used by Students While Preparing for National Examinations: A Case of Lower Secondary Schools in Rwanda

Wenceslas Nzabalirwa[1], Claudien Ntahomvukiye[2], Irénée Ndayambaje[3], Perpetue Bimenyimana[4] & John Aluko Orodho[5]

University of Rwanda-College of Education, Rwanda [1, 2, 3], INES-Ruhengeri , Rwanda [4] & Kenyatta University, Kenya [5]

Abstract

The study examined the learning strategies used by Rwandan students while preparing for Lower Secondary National Examinations specifically aiming at determining the level of preference of each of the learning strategies. The study was guided by Social Cognitive Theory propounded by Albert Bandura. The embedded version of concurrent Mixed Method Research Design was adopted. Systematic and stratified sampling techniques were used to select 673 students and 18 headteachers yielding a sample size of 691 to participate in the study. Questionnaire, interview schedules and observation guidelines were used to collect data. The findings established that cognitive learning strategies commonly used by students while preparing for national examinations included: elaborative strategies; organizational strategies; self-regulation strategies; motivational strategies; concentration strategies; help seeking strategies and rehearsal. It was concluded that the relatively balanced usage of these strategies notwithstanding, concentration was the most predominant. It was recommended that teachers need to be conversant with these learning strategies, integrate them in their teaching-learning activities so as to gradually educate the students on how to use them effectively. As for headteachers, they should create a scholarly and conducive learning environment that enables learners to learn and interact with teachers and peers [194 Words].

Key words*: Learning Strategies,   National Examinations,   Lower Secondary Schools.*
I.   **Introduction**

1.0. Background to the study

1.1. The context of National Examinations in Rwandan Educational System

A historical trajectory of Rwandan education system indicates that education in the country has undergone different structural and organizational changes (Republic of Rwanda, 2013). Currently, the educational system in Rwanda operates on a 6-3-3-4 system. This implies six years for Primary School, three years for Lower Secondary School, three years for Upper Secondary School and four years for University Bachelor's degree. In this context, national examinations apply at primary and secondary school; meaning at the 6-3-3 first levels.

Based on merit, the National Examination at the end of six years of Primary School creates the opportunity to join the boarding schools to the best performers. While the Lower Secondary covers general courses, the level of performance in National Examination at the end of the three years of Lower Secondary determines the area of specialization and the type of school to join. As for the next three years of Upper Secondary, they are concluded by a National Examination that determines whether the candidates shall go for higher education studies and in which area of studies.

In terms of management, National Examinations for Primary School and Lower Secondary School are the panacea of an affiliated agency to the Ministry of Education (MINEDUC) named Rwanda Education Board (REB). Therefore, it is up to the Rwanda Education Board to coordinate all activities related to examination setting, conduct and certification. The same institution is responsible of setting candidates' eligibility criteria (Rwanda Education Board, 2013) as well as fixing the subjects to be evaluated and the language to be used among the national official languages. For the end of Upper Secondary Schools National Examination, depending on the area of specialization, exams are managed by three institutions namely Workforce Development Agency (WDA) for Technical and Vocational Education and Training (TVET), University of Rwanda-College of Education (UR-CE) being responsible for Teacher Education and Rwanda Education Board (REB) being accountable for other general courses. It was against this background that this study was premised.

1.2 State of the Art Review

There is a prolific body of literature that put great emphasis on learning strategies, assessment and students success in formal education system (Ampofo, Bizimana, Ndayambaje & Orodho, 2015; Briggs& Watkins, 2001; Bond, 1997; Feller, 1997; Ndayambaje, Ampofo, Bizimana, Otieno, Ogeta & Orodho, 2015; Vermunt, 1995). Other scholars and researchers have also demonstrated that despite the challenges associated to finance, there are also other challenges like competing needs among others (Ndayambaje et al., 2015), individuals, societies and governments are increasing value to formal education (Ampofo et al., 2015) .

Truthfully, the perception of education as any other form of investment has engendered the stakeholders' emphasis on the positive outputs. This justifies the reason why parents strongly insist on students' success in examination which also put much pressure on students as they teach (Bond, 1991). Besides parental concern, students' performance in internal examinations and/or in national examinations is also a focus of educational stakeholders as it is one of the baselines for school ranking, students' selection, promotion and placement policies and practices (Biggs & Watkins, 2001).

The foregoing notwithstanding, it should be emphasized that students' success in examinations in part depends on the learning strategies they employ. Appropriate use of learning strategies greatly contributes to success. Learning strategies refer to the activities by which learning is achieved. For example, reading aloud, copying notes, consulting peers, asking the instructor for clarification are all learning strategies. The use of learning strategies allows students to actively process information, thereby influencing their mastery of material and subsequent academic achievement (Pintrich, Smith, Garcia & McKeachie, 1993).

Felder (1997) states that students learn in many ways- by seeing and hearing, reflecting and acting, reasoning logically and intuitively, memorizing and visualizing and all these ways in which an individual characteristically acquires, retains and retrieves information. All these are aspects of learning strategies. In addition, Weinstein, Zimmermann and Palmer (1988) point out those learning strategies   as being organized plans of action in order to achieve deep learning for example, rehearsing, summarizing, imagining, elaborating and outlining.

Vermunt (1995) argues that the instruction does not lead to learning automatically. The outcome of students' achievement in the course depends on the learning strategies they use. To succeed, students do not only need cognitive skills or better and qualified teachers, but they also need to have the will and /or motivation to learn (Pintrich & De Groot, 1990).

From the study conducted by Scouller (1998), it was shown that students tend to use surface learning approaches when they were made aware that the examination would be formative. On the other hand, when they prepare for summative assessment, Nicol and Macfarlane-Dick (2006) have found that students tended to use more of peer, collaborative or cooperative learning strategies.

Likewise, Garner (1990) analyzed the strategies being used when students were scheduled to participate in the exam. He found that in order to prepare for the exam, they readout their textbook previously studied in the semester and read about tips and takes notes for a review in exam night. Furthermore, findings from Shen's (2008) indicated that at the beginning of semester, students used rehearsal, elaboration and organizational strategies equally. But, by the end of the first semester of study, the data from the same study showed that students used more rehearsal technique compared to other methods.

1.3 Statement of the problem

Assessment is part of teaching-learning continuum and key educational stakeholders are aware that there is no other means to certify that learning has taken place or skills have been acquired if not through assessment. Nevertheless, it is common to realize that assessment causes panic and illness to students (Nayituriki, Niyoyita & Nshimiyimana, 2012). Pressley (1997) concurs that preparing for exams is a task most students dread. He adds that it involves time and hard work and students experience it as stressful and anxiety-provoking. However, they perceive this stress positively. It stimulates them to work hard, helps them develop deeper approaches to learning and enhances their performance on exams. In fact, as the students recognize the role of assessment, especially the summative function as a continuous and important component of their learning process, they consciously or subconsciously vary their attitudes and strategies of learning in order to cope with the assessment system (Harris & Bell, 1986).
Levin and Mayer (1993) conclude that learning some strategies to make preparation and revision a little more effective can be the first step towards greater exam success. Kadri (2011) stressed that summative assessment is perceived as a major factor in stimulating students to study more, exert more effort to pass an exam or get a higher mark; it can thus be considered as a stimulus to effort and achievement, as well as being a motivation strategy for study. Therefore, assessment is considered as one of the most important factors affecting students' strategies of learning.

 Although many researchers emphasize this relationship, it continues to be poorly understood.   Hence, one would wonder how Rwandan students get prepared to face Lower Secondary national examinations that open up the chance for specialization that starts with the Upper Secondary School. In Rwanda, national examinations fall into the category of summative assessments and are organized nationally at the end of primary school, lower and upper secondary levels.

1.4 Purpose and Objectives of the Study

The purpose of the study was to examine   the learning strategies used by Rwandan students while preparing for Lower Secondary National Examinations. The related objectives were twofold:

(1) To determine the level of preference of each of the learning strategies used by Rwandan students as they prepare for Lower Secondary National Examinations

(2) To solicit suggestions from students, teachers and immediate educational stakeholders on the best strategies that would enforce the learning process, outputs and outcomes.

1.5 Theoretical framework

This study was guided by Social Cognitive Theory propounded by Albert Bandura. By nature, this theory values the role of personal efforts, peer support and further source of knowledge for learning to happen and succeed (Bandura, 1989). In effect, as a psychologist, Bandura argued that psychosocial functioning is a result of vicarious, self-reflective and self-regulatory processes (Bandura, 1986). Beyond that, Bandura underlined the influence of social-network to learn, motivate and shape the behaviors; which are framed in the social cognitive dimension of the learning process. Therefore, a deep reflection into the scenarios around preparation and carry-on of the national examinations in Rwanda lead to choose Social Cognitive Theory as the best to explain and support this study.

In fact, the preparing for national examinations requires primarily individual learners' efforts to internalize the acquisitions. Secondly, the group of learners, teachers, school administrators and any further stakeholder need to come together to assist the learner to get prepared adequately so that the learner's performance affects and reflects positively the whole learning endeavor and the educational system at large. Factually, Bandura (1988) conceptualizes the individual learners' efforts and the social support to acquire knowledge into a Zone of Proximal Development illustrated as follows:
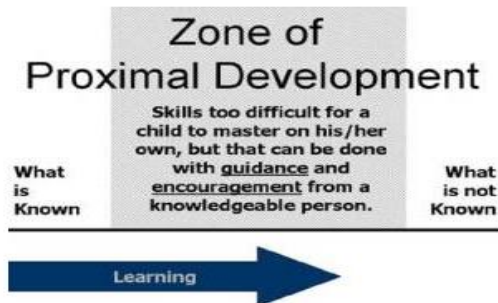
Source: McLeod (2012)
Figure 1: Zone of Proximal Development
In the above Figure 1, the child stands for the learner. The same figure shows Zone of Proximal Development which is the gap what a learner has already mastered (the actual level of development) and what he or she can achieve when provided with educational support (potential development). Hence, in learning process such a gap can only be closed by scaffolding (Bandura, 1988) made through interaction and support (Coffey, 2009). The choice of this theory is indeed enlightened by previous researchers such as Wolfs (2001) and Falardeau and Loranger (1993) who found out that actually, learning strategies vary depending on the circumstances and school context.

II.   **Methodology**

2.1 Research Design and Locale

This study adopted the concurrent mixed method research design (Creswell, 2012) by which qualitative and quantitative data approaches (Creswell & Plano Clark, 2007) were used in parallel. To ensure ecological validity, the study incorporated districts from various provinces across the country; rural and urban/semi urban also catered for as a selection parameter.
2.2 Population and Sampling
 The districts were randomly sampled, where every district had an equal opportunity to be included in the sample that is, chance was the only factor that determined the districts that constituted the sample (Malec, 1998).   Apart from Kigali City whereby only two schools were selected from two different

districts, for the rest of the provinces two schools were randomly selected in each constituent District. This has followed a criterion based sampling procedure whereby also the researchers took into account public and private nature of the schools. Therefore, this criterion sampling procedure (Orodho, 2009; 2012) led to a sample size of 18 schools countrywide.

Table 1: The sampled fourth year students and headteachers per school, district and province

Provinces	Districts	Schools	Total number of 4th year students	Sampled 4th year students
	Gicumbi	S1	57	11
NORTH		S2	315	63
	Gakenke	S3	141	28
		S4	116	23
	Rusizi	S5	112	22
WEST		S6	195	39
	Nyabihu	S7	317	63
		S8	44	9
	Huye	S9	168	34
SOUTH		S10	322	65
	Kamonyi	S11	190	38
		S12	143	29
	Rwamagana	S13	190	38
EAST		S14	285	57
	Kirehe	S15	142	28
		S16	112	22
	Nyarugenge	S17	122	24
KIGALI CITY	Gasabo	S18	394	79
TOTAL	**10**	**18**	**3,365**	**673**

The researchers fixed the sample size at 20% of the fourth years' targeted students. Thus from population of 3365, the sample size was fixed at 673 students. Systematic and stratified random sampling enabled the researchers to reach individual students in the selected schools. In addition to the students, the researchers purposively included 18 headteachers of these schools in the study. The details on the sample to the study are presented in the table 1 below. For ethical considerations, schools are labelled from S1 to S18.

2.3. Research Instruments, Data Collection and Analysis

In this study, data were collected through questionnaires addressed to students, semi-structured interviews with headteachers This methodological pathway of combining instruments was used so as to offset the weaknesses of one instrument; a procedure known as triangulation (Orodho, 2009). To ascertain validity of the data collection instruments, these were perused by three experts who advised to make some corrections. After making corrections, the questionnaires were pre-tested on 20 participants who were part of the target population but not included in the main study in order ensure its reliability. The questionnaires were adopted because the computed reliability coefficient, through Split-Half Method, was 0.86 which is greater than the fixed 0.75 acceptability level (Orodho, Khatete & Mugiraneza, 2016) .

The collected quantitative data were entered in the Statistical Package for Social Sciences (Field, 2009; Ofori & Dampson, 2011; Orodho, Ampofo, Bizimana & Ndayambaje, 2016) to produce required figures and tables of descriptive statistics (Mean and percentages). The qualitative data were transcribed and organized under themes around the research objectives (Orodho, Khatete & Mugiraneza, 2016).

III.   Findings and discussion

3.1 Learning strategies used by Rwandan students

 The first task of this study was to examine the main learning strategies employed by Rwanda students while preparing for their Lower Secondary National Examinations. The sampled students were requested to indicate the learning strategies commonly used and results displayed in Figure 1. The results depicted in Figure 1 reveal that Rwandan students use majorly seven learning strategies as they prepare for Lower Secondary National Examinations. These strategies are elaborative strategies; organizational strategies; self-regulation strategies; motivational strategies; concentration strategies; help seeking strategies and rehearsal strategies.

Figure 1: Learning strategies used by Rwandan students while preparing for Lower Secondary National Examinations
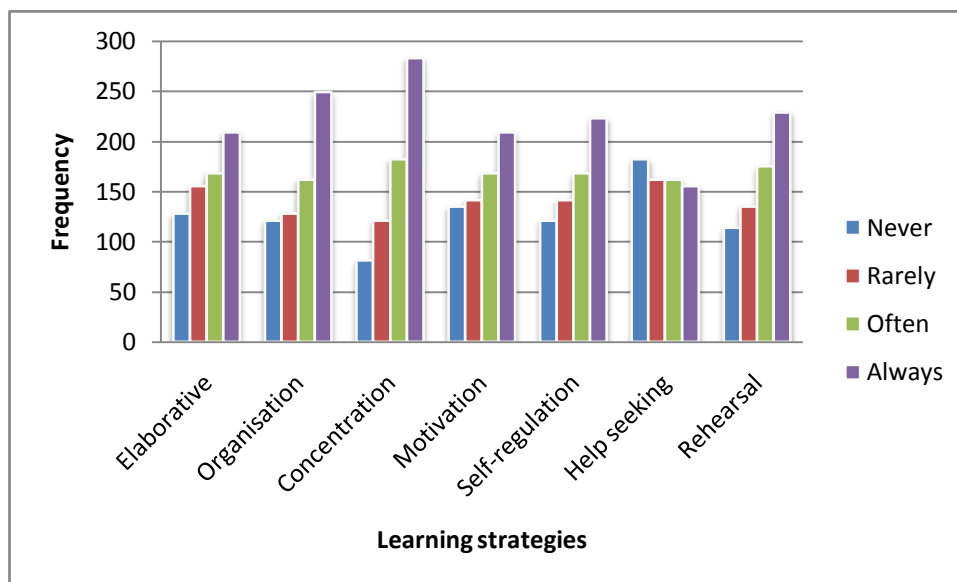
In this study, the elaboration strategies that were considered include finding concrete examples for better understanding, knowing rules, summarizing, asking questions and answering them, transfer of learning, knowing formulas and their applications and thinking of analogies for facts that have to be learned. These actually enable learners to make mental connections between material to be learned and existing knowledge (Warr & Jonathon, 2000).

As for organizational learning strategies, this study examined strategies such as writing down the main ideas, organizing material for private reading, and paying more attention to examinable subjects. For the concentration learning strategies -that gained more weight- this study focused on indicators such as paying attention to what one is studying or learning, completing of given assignments and avoiding all sources of distraction during self study. Factually, cconcentration enables ones' energy to be devoted to a single subject instead of a variety of scattered ideas (Gleeson, Livett & Thomas, 2006).

Motivational learning strategies investigated include the ability to manage time effectively, responsibility in control of own studies and maintenance of an image of self-worth and self-efficacy; that are at the root of valuing education and postponement of current enjoyments (Zimmerman, 2000; Ee & Woore, 2004).   This study also investigated self-regulation strategies by focusing on strategies such as students' adaptability to the learning activity, fixing and timing self- study and readiness for study. Aside this, the researchers also explored help-seeking strategies such as learning in groups (Newman, 2002) or consulting others - the teacher, peers, a family member, more experienced people (Lonka & Lindblom, 1996) and to obtain information from written documents, manuals, computer programs/ internet and other sources.

In the end, the researcher probed into rehearsal learning strategies such as revision and reciting of learnt information, summarizing the main points of the lesson and memorizing by trying to recall the main points; strategies which normally enhance the learner's attention and encoding of information (Warr & Jonathon, 2000). Figure 1 illustrates quantitatively the level of usage in four scales as proposed in the questionnaire. These scales are never, rarely, often and always.

The analysis of the Figure 1 enables to realize that the seven learning strategies used are mainly categorized as cognitive learning strategies which in nature are purposively used to learn, remember and understand subject material (Weinstein, Zimmerman & Palmer, 1988).

3.2 The preference of learning Strategies

 The second task was to determine the learning strategies preferred by Rwandan secondary school students while preparing for national examinations. The students were requested to rate the preferred learning strategies on a likert scale of 4 and the results displayed in Table 2.   The results in Table 2 reveal that learning strategies seem to be equally balanced in usage, although   the concentration learning strategies is the most preferred with a mean score of 3.0. The fact that concentration is the most used is in line with Gleeson et al, (2006) who pointed out that concentration in clearly linked to the level of motivation and the strive for better results and success. In the particular context of Rwanda, such a behavior is justified by the fact that the level of success in the lower secondary national examinations determines ones' future carrier and the likelihood to get the best school of their choice.

Indeed, as revealed by interviewed headteachers; compared to students in other levels, generally, the motivation of those preparing for national examinations is very high. Some of the reasons quoted include the fear to fail, the high tension caused by the fact of being assessed by external examiners

rather than their usual teachers and the set individual future goals to achieve. That is why these students are constantly attentive, put more effort in learning, do not get tired and never get discouraged, are interested in their progress and achievements and learn quickly than other students and understand better (Nzabalirwa, 2004).

Table 2: Strategies used while preparing for Lower Secondary National Examinations

Strategies	Total & %	Never=1	Rarely=2	Often=3	Always=4	Mean
Elaborative	Total	128	155	168	209	2.7
	%	19	23	25	31	
Organisation	Total	121	128	162	249	2.8
	%	18	19	24	37	
Concentration	Total	81	121	182	283	3
	%	12	18	27	42	
Motivation	Total	135	141	168	209	2.7
	%	20	21	25	31	
Regulation	Total	121	141	168	223	2.8
	%	18	21	25	33	
Help seeking	Total	182	162	162	155	2.4
	%	27	24	24	23	
Rehearsal	Total	114	135	175	229	2.8
	%	17	20	26	34	

One of the interviewed headteachers expressed that the students' behavior is much polarized by the future life expectation. In this vein, this head teacher exemplified his point of view by saying:

> Students especially those from impoverished families study with hope
> that by reaching the university they will be able to get jobs and improve
> their families' standards of living. They expect university education to
> make them also important personalities in the society (Head teacher 5).

In addition, it was also confirmed by interviewees that students work hard as they prepare for lower secondary national examination because getting good grades is a baseline to be admitted into well established secondary schools that creates chances for higher education. That is even the reason why the student-teacher and student-student interactions seem relatively intensified as the students approach the national examinations' period as communicated by one of the headteachers. Such interactions aim at seeking for clarification, expanding the knowledge and building confidence.

In the end, some of the Headteachers interviewed averred:

> Learning strategies are deeply renovated by students as they
> prepare for national examinations because it is the time for them
> to feel more responsible for their own learning, value and enrich
> their learning (Headteachers 1, 5 & 9).

It is such attitudes that force even headteachers to allocate more study time for them, avail required resources such as library and teachers so as to respond to whatever learning needs. This corroborate with the fact that knowing how students learn is crucial for teachers because it helps them to plan and choose instructional materials accordingly and tailor their assessment towards learning outcomes (Pintrich, Smith, Garcia & McKeachie, 1993).

IV.   Conclusion and recommendations

This study intended to identify the learning strategies used by Rwandan students as they prepare for Lower Secondary National Examinations and determine the level of preference of each of the learning strategies. The results of the study led to the conclusion that cognitive learning strategies are the most used by students. These are namely elaborative strategies; organizational strategies; self-regulation strategies; motivational strategies; concentration strategies; help seeking strategies and rehearsal strategies. Nevertheless, although these learning strategies are relatively balanced in their usage, concentration learning strategies were identified to be the most used**.**

Based on the findings, discussions and conclusions emanating from the study, it was   recommended that teachers need to be conversant with these learning strategies, integrate them in their teaching-learning activities so as to educate the students gradually on how to use them effectively. As for headteachers, they should create a scholarly and conducive learning environment that enables learners to learn and interact with teachers and peers.

Acknowledgement

References

Alam, S.M.M. & Lodhi, F.A. (2011). The Effects of Examination Assessment on Education by the Registered Science Teachers of Secondary Board of Education in Sindh. *Interdisciplinary Journal of Contemporary Research in* Business, 3 (2).

Alliance of Concerned Teachers-ACT (2011). *Teachers' Guide to Assessment*, available online http://edu5mtlcompendiumofresources.weebly.com/uploads/5/2/9/8/52987263/teachers_guide_to_assessment_web.pdf, retrieved August 4th, 2015.

Ampofo, S.Y., Bizimana B., Ndayambaje I., Karongo,V, V., Lyn, L. & Orodho, J. A. (2015). Social and Spill-Over Benefits as Motivating Factors to Investment in Formal Education in Africa: A Reflection around Ghanaian, Kenyan And Rwandan Contexts. *Journal of Education and Practice,* 6 (11), pp.134-147.

Ampofo, Y.S., Bizimana. Mbuthi,J., Ndayambaje, I. & Orodho, A.J. (2014). Performance discrepancies between formative and summative assessments: focus on six different higher learning institutions from Ghana, Kenya and Rwanda. *International Journal of Recent Scientific Research*, 5 (6), pp.1055-1057.

Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development. Vol.6. Six theories of child development* (pp. 1-60). Greenwich, CT: JAI Press.

Bandura, A. (1988). Organizational Applications of Social Cognitive Theory. *Australian Journal of Management*, 13 (2), pp. 275-302.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall series in social learning theory. National Inst of Mental Health Rockville MD US, Englewood Cliffs, NJ, US: Prentice-Hall.

Biggs, J.B. & Watkins, D. (2001). Insights into teaching the Chinese learner. In D. Watkins & J. B. Biggs (Eds.), *teaching the Chinese Learner: psychological and pedagogical perspectives* (pp. 277-300). Hong Kong: Comparative Education and Research Centre and Australian Council for Educational Research Ltd.

Bond, M.H. (1991). *Beyond the Chinese face. Insight from Psychology*. Hong Kong: Oxford University.

Coffey, H. (2009). *Zone of proximal development*. The University of North Carolina at Chapel Hill.

Creswell, J.W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, 4th Ed., Boston: Pearson.

Creswell, J.W., & Plano Clark, V.L. (2007). *Designing and Conducting Mixed Method* Research. Thousand Oaks. CA Sage.

Ee, J. & Woore, P.J. (2004). Motivation, strategies and achievement: A comparison of teachers and students in high, average and low achieving classes. In Ee J., Chang A., & Tan O.S. (Eds), *Thinking about Thinking: What Educators Need to Know*. Singapore: Mc-Crow Hill Education.

Falardeau, M. & Loranger, M. (1993). Le choix de stratégies d'apprentissage dans differents contexts scolaires par l'élève du primaire et du secondaire. *Revue Canadienne de l' Education*, 18, pp. 307-322.

Felder L.I. (1997). Safe and sound. *American School and University*, 69(8) 32- 44.

Field, A. (2009). *Discovering statistics SPSS*, 3rd Ed., Los Angeles: SAGE Publication.

Garner, R. (1990). When children and adults do not use learning strategies: Toward a theory of settings. *Review of Educational Research*, 60(4), 517-529.

Gleeson, D., Livett, M. & Thomas, H. (2006). *Tailor-making a transition program to cater for student diversity.*

Harris, D. & Bell, C. (1986). *Evaluating and Assessing for Learning*. London: Kogan Page.

Kadri , H. M., Moamary, M. Magzoub, Roberts, C. & Van der Vleuten, C. P.M. (2011) . Students' perceptions of the impact of assessment on approaches to learning: a comparison between two medical schools with similar curricula. *International Journal of Medical Education,* 17(2), 44-52

Levin, J. R., & Mayer, R. E. (1993). Understanding illustrations in text. In B. K.Britton, A. Woodward, and M. Binkley (Eds.). *Learning from Textbooks: Theory and Practice* (pp. 95-113). Hillsdale, N.J : Erlbaum & Associates.

Lonka, K. & Lindblom, S. (1996). Epistemologies, conceptions of learning and study practices in medicine and psychology. *Higher Education*, 31, pp. 5-24.

Malec, D. (1998). "Stratified Sampling." In *Encyclopaedia of Biostatistics*, eds. P. Armitage and T. Colton. New York: John Wiley.

McLeod, S. (2012). Zone of Proximal Development. *Simply Psychology*, online on http://www.simplypsychology.org/Zone-of-Proximal-Development.html, accessed 10th August 2015

Nayituriki, E., Niyoyita, J. P., Nshimiyimana, T. (2012). *The effect of end of semester examinations on performance and welfare*. A case study of Kigali Institute of Education. Unpublished dissertation, Kigali: Kigali Institute of Education

Ndayambaje, I, Ampofo, S. Y., Bizimana, B., Otieno, M. A., Ogeta, N.O., & Orodho, J. A. (2015). Challenges of Social and Spill-Over Benefits as Motivating Factors to Investment in Formal Education in selected countries of Ghana, Kenya and Rwanda. *Journal of Humanities and Social Science,* 20 (4), 6, pp. 29-38.

Newman, R. S. (2002). How self-regulated learners cope with academic difficulty: The role of adaptive help-seeking. *Theory into Practice*, 41 (2), pp. 132-137.

Nicol, D. J. & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Higher Education*, 31(2), 199-218.

Nzabalirwa, W. (2004). *General Teaching Methods*. DTP Module 7. Kigali: KIE.

Ofori, R. & Dampson, D.G. (2011). *Research Methods and Statistics using SPSS*. Amakom- Ojimba, D.P. (2013). Technical and Vocational Education: Imperatives for Socio-Economic and Political Stability in Nigeria. *European Scientific Journal*, 9 (19), pp.9-18.

Ommundsen, Y., Haugen, R., & Lund, T. (2005). Academic self-concept, implicit theories of ability, and self-regulation strategies. Scandinavian Journal of Educational Research, 49 (5), pp. 461-474.

Orodho, J.A. (2009). *Elements of Education and Social Science Research Methods*, 2nd Edition. Maseno: Kanezja Publisher.

Orodho, J.A. (2012).*Techniques of Writing Proposals and Reports in Education and Social Science.* Maseno: Kanezja Publisher.

Orodho, J. A. (2013).Progress towards attainment of Education for All (EFA) among nomadic pastoralists: Do home-based variables make a difference in Kenya? *Research on Humanities and social sciences* pages 54-67.www.iiste.org .

Orodho, A.J. (2014).Policies on Free Primary and Secondary Education in East Africa: Are Kenya and Tanzania on course to attain Education for All by 2015?. International Organization of Scientific Research (IOSR) *Journal of Humanities and Social Sciences* (OSSR-JHSS). www.iosrjournals.org .

Orodho, A.J; Ampofo, S.Y,; Bizimana, B & I , Ndayambaje. (2016).Quantitative Data Management: A step-by –step Guide to Data Analysis using Statistical Package for Social Sciences (SPSS) for Windows Computer Programme. Maseno: Kanezja Publisher.

Orodho, J.A.; Khatete, I., & Mugiraneza, J.P. (2016). *Concise Statistics: An Illustrative Approach to Problem Solving, Kanezja Publisher,* ISBN.978-9966-7350-9-7.

Pintrich, R.R., Smith, D.A.F., Garcia, T., & McKeachie, W.J. (1993). Reliability and predictive validity of the motivated strategies for learning questionnaire (MSLQ). *Educational and Psychological Measurement*, 53, 801-813.

Pintrich, P.R. & De Groot, E. (1990). Motivational and self –regulated learning   components   of classroom academic performance. *Journal of Educational   Psychology*, 82 (1), 33-50.

Pressley, M. Yokoi, L. Meter, P.V., Etten,V. and Freeber, G .(1997). Some of the reasons why preparing for exams is so hard: what can be done to make it easier? *Educational Psychology Review*, 9(1), 321-335.

Republic of Rwanda (2013). *Education Sector Strategic Plan 2013/14 –2017/18,* Kigali: Ministry of Education.

Rwanda Education Board (2013). *Eligibility, rules and regulations for private candidates intending to sit for Advanced Level Secondary School National Examinations*, Kigali.

, K. (1998). The influence of assessment method on students' learning approaches: Multiple choice question examination versus assignment essay. *Higher Education*, 35 (4), pp. 453-472.

Shen, H. H. (2008). An analysis of word decision strategies among learners of Chinese. *Foreign Language Annals,* 41(2), 501-524.

Vermunt, J. (1995). Process-oriented instruction in learning and thinking strategies. *European Journal of Psychology of Education, 10, 325-349.*

Warr, P.B. & Jonathon, D. (2000). Learning strategies, leaning anxiety and knowledge acquisition. *British Journal of Psychology*, 91(3):311-334.

Weinstein, C.E., Zimmermann, S.A. & Palmer, D.R. (1988). Assessing learning strategies. The design and development of the LASSI. In Weinstein C.E.,   Goetz E.T., & Alexander P.A. (Eds). *Learning and Study Strategies: Issues in Assessment, Instruction and Evaluation. San Diego*: Academic Press, Inc.

Wolfs, J. L. (2001). *Méthodes de travail et stratégies d'apprentissage. Du secondaire à l'Université - Recherche-Théorie et Application*. Bruxelles: Deboeck Université

Zimmerman, B. J. (2000). Attaining Self-Regulation: A social cognitive perspective. In Boeckaerts M. & Pintrich P.R(Eds). *Handbook of Self- Regulation*. San Diego, CA: Academic Press.