

Original Paper

Adopting Value Creating Pedagogy and Problem Based Learning in Secondary Schools in Kenya

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Abstract

Value Creating Pedagogy (VCP) promotes well-being and support for social justice and practices connected with the happiness of both the individual and the society. Effective adoption of VCP promotes educational ideals oriented in dignity and empowerment of all individuals in school and in society. Adherence to principles of VCP through Problem Based Learning (PBL) approach creates a meaningful platform for addressing challenges in schools through creative thinking which in turn encourages exploring processes where students are free to voice opinions in an inclusive learning environment. Through VCP, students individually and collaboratively assume responsibility for generating learning issues, uphold respect of individuality, build bonds of lasting relationship and oppose violence. In instances where VCP is implemented appropriately, attitudes towards learning improve and students learn to solve complex and authentic issues independently. By so doing students acquire spontaneous happiness and knowledge to solve new problems as well as competence in confronting emerging issues arising from school and in society. Conversely, in Kenya, examination focus of education system is a deterrent to development of values and ethics required for survival in society. On the other hand, the challenge for many teachers in adopting VCP is in making transition from knowledge provider to facilitator of learning. As a result, development of problem solving skills such as independent learning, critical thinking and decision making become disillusioned. This study explored adoption of value creating pedagogy and problem based learning as a strategy for creating value added education in public secondary schools in Nairobi County. A survey design was adopted with a target population of 80 schools where information was sourced from 40 teachers and 40 students through purposive sampling and simple random technique. Data were collected using an interview schedule and a questionnaire. The study found inconsistencies in the way schools implemented PBL in

regard to increasing student knowledge and skills in problem solving. The study recommends that the Ministry of Education should introduce a national policy on VCP and PBL as pedagogical approaches across all curricular that can be adopted to develop relevant and engaging values connected to achievement of Vision 2030.

Keywords

problem based learning, problem solving, independent learning, critical thinking, value creating pedagogy

1. Introduction

Value creating pedagogy advocated by (Makiguchi, 1871-1944) and his predecessor (Toda, 1900-1958) emphasises happiness and value in life through simplicity in ideas, actuality in living, honesty to serve with dignity as well as patience for hopelessness. According to Makiguchi, education is fundamental in safeguarding individual and societal well-being, or happiness that is discovered through transformation process of interaction with the environment. Makiguchi's philosophy of VCP provides basis for an approach to teaching that guides the process of learning and seeks to develop well-being and social justice, indicating its potential as a dependable and practical approach for enabling enhanced quality of life for individuals and communities. In instances where VCP is effectively adopted, students are likely to be happy, lead a life based on both knowledge and wisdom and develop respect for individuality. Drawing from Makiguchi viewpoint, students develop contentment when given opportunities to participate in the joys and sorrows of daily life and when schools articulate human value creating pedagogy. In supporting this assertion (Goulah & Ito, 2012) affirmed that VCP enables teachers to analyse meaning in the lives of students and guide unconscious to consciousness, valueless to living and irrational to reason. Philosophies embodied in VCP support learning in any age and provide learners with valuable applications for addressing challenges faced in school and in society.

The system of value creating pedagogy has a lasting impact not only in Japan, but in the whole world. According to British Education Act 2002 and 2005, values of democracy, the rule of law, individual liberty mutual respect and tolerance are incorporated within the school curriculum (Education Act, 2002) and (Department for Education, 2005). Makiguchi's principles have grown into value creation society considering happiness of learners to authentic goals of education. In Kenya, the goals and objectives of formal education reflect a concern for teaching values. National values enshrined in (Article 10 of the constitution, 2010) and (Basic Education Act, 2013) offers development of skills, attitudes, and values for learners to foster; the spirit and sense of patriotism, nationhood, unity of purpose, togetherness and respect. Despite promulgation of constitution 2010, and progression of Education Act 2013, examination orientation of the education system negates realization of a culture of values and ethics in school and in society. In her study on drug and substance abuse in secondary schools in Kenya (Kimani, 2013), affirmed that use of testing to improve performance at the expense of affective and psychomotor skills has led to increase in anti-social behaviour in schools. Drawing from

this observation, school curriculum should incorporate VCP that reflects society's ethics and principles embodying nationhood as indicated in the constitution of Kenya 2010.

According to (Ministry of education, science and culture, 1980), the Japanese education system rooted in its Confucian and Buddhist heritage emphasizes moral and character development throughout schooling. On the same vein, the education system in Kenya emphasizes the development of individuals in holistic and integrated manner, while developing intellectually, emotionally, and physically balanced persons (Republic of Kenya, 2012). However, in the Sessional paper No 12 Of 2012, negative aspects such as moral decay and low levels of social etiquette were identified as not in consonance with progression of the nation (Republic of Kenya, 2012). Education system in Kenya is expected to develop and enhance patriotism, national unity, mutual social responsibility and ethical and moral foundation (Sessional paper No 14). Agreeing with this assertion (Odundo & Ganira, 2017) noted that though teachers inculcate values to learners both consciously and unconsciously, there is no planned value education programme established on formal learning. To address this concern, the on-going reform process in curriculum has integrated values based education in all curricular and pedagogy in order to enhance competency skills among all learners.

With constant change in many aspects of life (OECD, 2012) noted the need for developing competency based learners capable of solving challenges in modern world. This concern calls for adoption of appropriate pedagogical approaches for equipping students with skills and values that will help resolve conflicts in school and in the society. Hence, VCP begins with the assumption that learning is an active, integrated and constructive process influenced by social contextual factors. The approach entrench student's learning processes in real-life problems by dealing with problem-solving skills that can be applied to future careers. Further (UNESCO, 2012) affirmed that VCP is well suited to develop skills such as ability to work in groups, problem-solving, improving personal learning, critiquing, self-directed learning and communication. In instances where these skills are implemented correctly, students become effective problem solvers, equipped with knowledge to connect real-world problems where inspiration to think critically becomes the enthusiasm to learn. If appropriately adopted, PBL is effective in fostering development of problem solving skills including independent learning, critical thinking and decision making for dealing with issues in school and in society.

Through VCP and problem based-learning approach, teachers offer guidance to learners and nurture their potential to the fullest. Despite the acknowledgment that PBL is a learner-centred approach effective in seeking solutions to real world problems, decline in values in secondary schools has increased in the recent past. This is based on the observation by (Cheloti et al., 2014) that showed high increase in student unrest in Nairobi public secondary schools demonstrated through cheating in exams, bullying and drug substance abuse. In cases where inappropriate teaching methods are used, students experience boredom, they get disinterested in the learning process which in turn trigger anti-social behaviour. In support of this contention (Keengwe, 2014) showed that many challenges encountered in the modern world are within student understanding, although skills needed to tackle these problems are

often missing from pedagogical approaches. As a result, limitations in pedagogical approaches result in low retention of content and skills in solving real life problems.

In addition (Le Fevre, 2014), found ineffective teaching approaches and insufficient preparedness of teachers to deal with diversity, inadequate support structures and unfavorable learning environment as impediments to effective use of BPL approach. In such circumstances inadequate use of PBL approach hinder realization of appropriate skills vital for problem solving processes. On the other hand, Munaza, Khadija, and Mohammad (2015) found PBL as an effective approach in promoting self-directed learning, problem solving and critical reasoning among students. This implies that when PBL approach is appropriately adopted, students are likely to realize lifelong learning skills critical for problem solving. In supporting this assertion, Mwanda, Odundo, and Midigo (2017) affirmed that adoption of a constructivist approach develops student's intrinsic interest in discovering skills for achieving teamwork, communication, as well as defending positions with evidence and sound argument. Given that PBL is anchored on the constructivist approach, effective adoption of problem solving skills will enable student to build up competence through; self-confidence, motivation, social inclusion, self-reliance, autonomy, empathy, open-minded and self-determination critical for informed reasoning in school and in society.

1.1 Value Creating Pedagogy, Problem Based Learning, and Independent Knowledge

Independent learning is the ability to make informed choices and responsibility of one's own learning activities with guidance from the teacher. According to Makiguchi, VCP is based on the premise that students can become happy in society as it exists, not by changing the society to become contented. In this regard, students' ability to develop an independent learning is reliant on pedagogical approaches adopted in class. In a world characterized by knowledge explosion, globalization and the need for efficient citizenship, the development of independent learning is critical for informed reasoning. Morisano, Hirsh, Peterson, Shore, and Pihl (2010), in their article on Setting, elaborating, and reflecting on personal goals in academic performance affirmed that independent learning increases educational responsibility for students to achieve objectives and expected goals. In this respect, ability to make informed choices and responsibility for one's own learning amounts to individual happiness and sustained interest in solving problems. If independent learning is adequately developed, students develop an interest in the learning process; they share talents in group work, apply new knowledge in problem solving and share responsibility. In addition (Olivares-Cuhat, 2011) affirmed that independent learning fosters social inclusion by countering hostility, increasing motivation to learn, and enhancing student awareness in limitations as well as ability to manage challenging behaviour. When appropriately adopted, independent learning helps student to take responsibility of their learning as well as learn to manage challenges in school and in society. In so doing independent learners develop a robust of skills that empower them in making informed choices for survival in modern world.

Given the importance of independent learning in promoting lifelong learning (Stiggins, 2007), pointed out a major challenge in implementing it as that of the teacher's perception of how students learn to

correspond to conceptualization. Drawing from this, inability to implement independent learning hinders students from achieving personal responsibility for learning. While independent learning requires the learner to be an active participant (Meyer, 2010), acknowledged the role of the teacher as critical in using a range of strategies including scaffolding, providing opportunities for students to self-mentor and also offer models of behaviour. When students are provided with relevant resource materials and given opportunities to learn and test their learning, they encourage each other, and discuss any challenges arising which may lead to happiness. This implies that sharing of information and opinions supports students' happiness, confidence, self-motivation, and social inclusion, allowing them to attain intended goals. Since education is the process of unfolding this ability, it should correspond with the absolute purpose of life. Hence, learning to solve problems in real situations coupled with happiness of the individual is the goal of value creating pedagogy.

1.2 Value Creating Pedagogy, Problem Based Learning and Critical Thinking

Effective VCP practices create a problem based learning environment supporting deeper learning through acquisition of intrapersonal and interpersonal skills that creates happiness. Critical thinking constitutes skills of analysing agreement, making inferences judging and making decisions or solving problems. In PBL approach (Mohd, 2010), identified critical thinking as key component in reflective judgement geared towards developing orderly plans that address complex problems. As a result, critical thinkers are happy and able to reason within multiple perspectives and position themselves in the place of others in order to genuinely conduct thinking across many disciplines. This view corresponds with Makiguchi's aim for a happy life and ability to create value. Additionally (Papathanasiou et al., 2014), found out that students who engage in critical thinking attain appropriate problem solving practices, evaluate effectiveness of issues and make informed judgment. Hence, exposure to appropriate learning strategies helps students in judging critically appropriateness of each problem before deciding which one would be best to solve challenges arising in school and in society.

While PBL is an effective way of developing critical thinkers (O'Hare & McGuinness, 2009) in an article, measuring critical thinking, intelligence, and academic performance in psychology affirmed that possession of critical thinking skills would not automatically lead to logical reflective thinking. Based on this argument, achievement in developing critical thinking skills requires a combination of appropriate disposition and teaching strategies that fosters values and attitudes essential in addressing challenges in the modern world. In order to foster an open and trusting atmosphere (Klug et al., 2014), argued that the learning strategy adopted should reflect beliefs that students are capable of developing critical thinking skills vital for problem solving. This entails adoption of explicit instruction devoted to critical thinking skills, abilities and dispositions built into all curricular for supporting development of problem solving and decision making skills. When these skills are realized, students are likely to have a command over own thinking for development of intellectual empathy, open mindedness, and honesty which vital for survival in modern society.

1.3 Value Creating Pedagogy, Problem Based Learning and Decision Making

Ability to make decisions and solve problems effectively enables students to become self-reliant and to contribute positively to issues arising from school and the society. Effective VCP creates an environment in which learners develop capacities and confidence to explore to full potential. Fundamental to effectiveness of PBL is the potential for students to act and make decisions in harmony with ones' values and interests resulting into increased capacity to respond well to challenges in life. Analysis by Niemiec, Ryan, and Deci (2010), showed that self-directed students act intentionally with understanding and without controlling influences, and are governed with true beliefs and interests. In instances where decision making skills are appropriately developed, students work together to identify and analyse problems and generate solutions, build and maintain positive self-image, interact positively and manage their own life. Thus, Makiguchi's pursuit of happiness as the purpose of education and life should be incorporated within the existing pedagogical system. In addition, Richard, Martin, Maarten, and Edward (2011) found out that students who make their own decisions develop simulations of lifelong learning, allowing them to become aware of and able to manage challenges arising in life. Such competences if adequately developed allow students to navigate through school issues that require decision making and problem solving. Without these skills effectively developed, students' learning become frustrated, resulting into irrational decision making and its dire consequences.

Since schools have the potential to help students become active and responsible citizens (Mariene, 2010), emphasized the need to move away from traditional instructional approaches to those that promote problem solving skills where students can think creatively and apply what they have learnt to daily situations. This require supporting teachers and ensuring that they plan and create appropriate learning resources that will enhance correct values, critical for problem solving. Conversely, according to a report by Nation Newspaper in July 21st 2016, cases of unrest in schools, incidences of intolerance and immoral behaviour have not shown any significant decrease across the country. Among reasons for lack of sustainable interventions are failures to identify causes of intolerance, inadequate resources as well as insufficient knowledge and skills to address challenges in schools. In this regard, Sung, Chang, and Liu (2016), argued that promoting self-directed students requires school involvement, appropriate guidance and support for teachers in developing appropriate resource materials enabling students to recognize the relevance of what they learn to own daily life. Furthermore, effective use of innovative teaching strategies such as VCP and PBL fosters students' competence in problem solving and decision making skills. When students become effective decision makers, there are high chances of developing essential skills that foster happiness including; self-reliance, reflective thinking and autonomy.

2. Statement of the Problem

Examination oriented cultures in many schools focus on cognitive dimension as opposed to affective and psychotic domains. As a result, learners do not attain skills in creativity, social responsibility and respect for individuality. Absence of value education is associated with acts of student unrest and

indiscipline, calling for teaching of values through appropriate pedagogies. The significance of VCP is in realization of happiness to the life of the person receiving education. Hence, PBL is based on constructivist hypothesis that students work with problem situations and dispositions essential for informed reasoning. Since PBL is problem focused, students start learning by addressing simulation of an actual ill-structured problem. As a result, knowledge construction is stimulated by the issue at hand and applied to provide answers to problems. Even though PBL is effective in facilitating student problems and self-directed learning, the challenge for many educators in adopting the PBL approach is in making transition from knowledge provider to facilitator of learning. In instances where PBL is inadequate, students' development of problem solving skills is curtailed resulting into irrational decision making and its unpleasant consequences. Further still, Le Fevre (2014), pointed at ineffective teaching approaches and insufficient preparedness of teachers to deal with diversity, inadequate support structures and unfavourable learning environment as impediments to the effective use of BPL approach. Having to cope with growing diversity in the world, schools require a paradigm shift from traditional methods to student-centred strategies that enhance skills critical for problem solving. This calls for equipping students with appropriate pedagogies that foster independent learning, critical thinking and decision making vital for addressing challenges in life.

3. Purpose and Objectives

The purpose of this study is to examine the influence of Value creating pedagogy and problem based learning approach in creating value added education. The objective is to determine the effectiveness of value creating pedagogy using problem based learning in enhancing value creating education, focusing on critical thinking, decision making and independent learning, among students in secondary schools in Nairobi.

4. Theoretical Framework

The study adopted the constructivism approach to learning (Bruner, 1996), which has been advocated as a key theoretical perspective underpinning PBL. In this approach, learning is an active process in which learners construct new ideas based on current knowledge. The work of (Sharp & Primrose, 2003), in constructivism emphasizes constant change and innovation coupled with the appropriate dispositions for knowledge construction where one event alters the context of a future event. Focusing on appropriate knowledge, values, attitudes, behaviours and competences using suitable pedagogies is likely to prepare students for values such as critical thinking, decision making and independent learning vital in problem solving. Thus, constructivism views knowledge as something that students should construct and give meaning to confusing ideas in the learning experience. In so doing, students engage thoughtfully with information while connecting between new information and prior knowledge, construct own unique view of the world in order to understand, predict, and control the environment. Thus, the role of the teacher is to provide experiences that will assist students to make useful

construction of knowledge. If adequately developed, these experiences will engage students in active learning and allow development of independent learning, critical thinking and decision making vital for confronting challenges in life. Consequently Cakir (2008) stressed that Constructivists' view of the learner is that of individuals shaped by circumstances beyond their control and is capable of understanding enquiry and exploration. As a result, students create a representation model of reality which guides behaviour in school and throughout life. With proper guidance from the teacher, students actively engage in problem situations and build on their own understanding of issues arising from school. Thus, working with problems helps to create happiness and meaningful context in which new knowledge is acquired and personal construction of the problem is learned.

5. Conceptual Framework

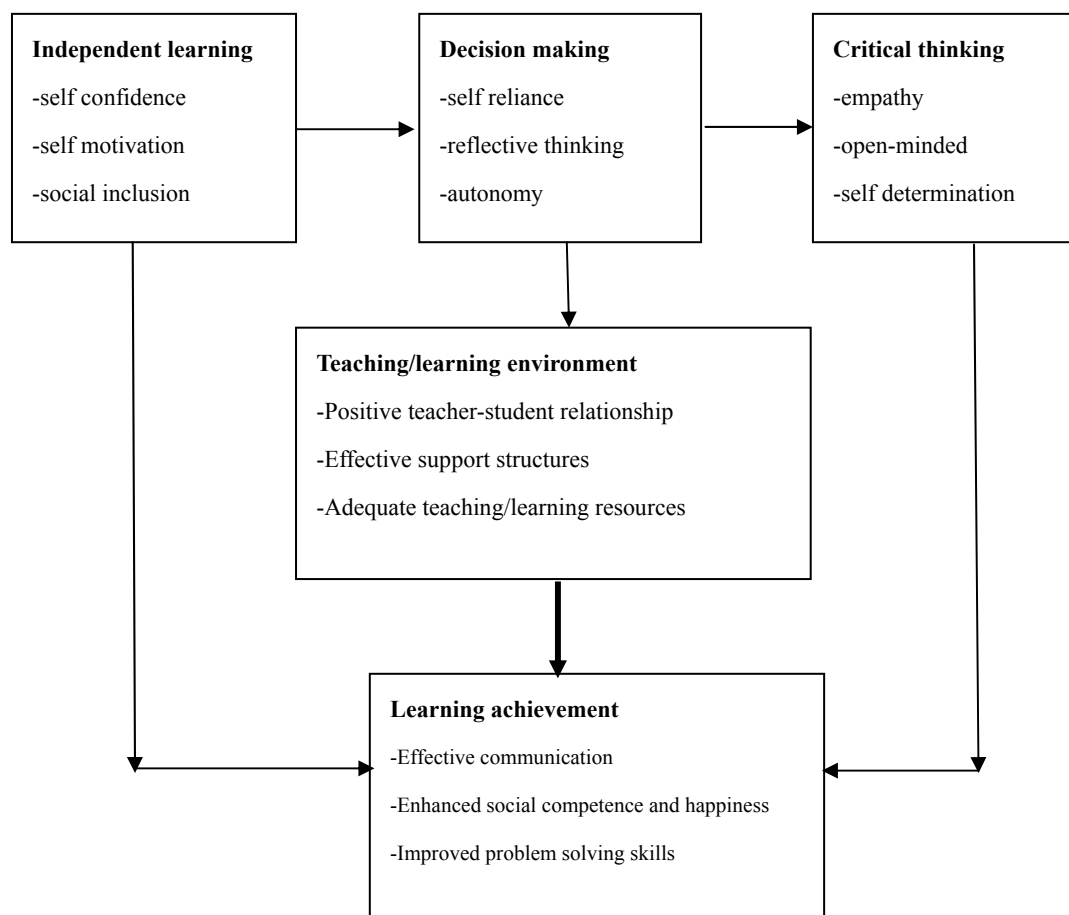


Figure 1. Relationship between Value Creating Pedagogy and Problem Based Learning

The conceptual framework illustrates the relationship between value creating pedagogy and problem based learning approach. Resemblance between the learning environment and knowledge applied motivate students to acquire problem solving skills such as independent learning, critical thinking and

decision making vital for confronting challenges in life. In instances where PBL is appropriately adopted, Students are likely to exhibit skills including; self-confidence, motivation, social inclusion, self-reliance, reflective thinking, autonomy, empathy, open-mindedness and self-determination, crucial in decision making. In this regard, learning becomes a process of immersing students into a problem situation to actively engage what they know about a problem and how to apply the problem in a real life situation. The learning environment should be embedded in real-life context where students can interact to realize several approaches of solving problems. This requires a favourable teaching and learning environment that embraces a positive teacher-student relationship, effective support structures and adequate resources that enhance PBL approach. In so doing, school becomes a place where students can achieve happiness, effective communication, enhanced social competence and improved problem solving skills. When this is realized there are high chances of producing responsible and informed citizens who can actively participate in the society by demonstrating skills in critical thinking, decision making and independent learning essential for survival in life.

6. Methodology

The study was conducted using a descriptive survey design. A survey design involves describing the nature of the current condition; identifying the problem in existing situations; assessing the needs to describe what exists in what amount and context. According to Roberts and Sikes (2011), a survey design is useful when the population is large. The target population was 80 secondary schools. The study applied a combination of both a simple random sampling technique and a purposive sampling procedure. Purposive sampling was used to identify 1 teacher from half of the target population. In total, 40 secondary school teachers participated in the study. The Simple random sampling was then applied to pick one student one from each school of the 40 schools 20 females and 20 males. The study used two instruments; an interview schedule and a questionnaire of 5 points of likert scale to generate data. Data analysis involved the application of a statistical technique where descriptive statistics were presented using Tables and Figures.

7. Study Findings and Discussion

7.1 Age, Experience and Academic Qualification of the Teachers

Work experience and qualification are vital indicators of learning outcomes. To determine the effectiveness of problem based learning, the study sought to find out demographic data of teachers in terms of age, experience and academic qualification. Findings are displayed in Table 1.

Table 1. Age, Experience and Professional Qualification of the Teachers

Age	F %	Experience	F %	professional qualification	F % (Yrs)
< 30	4	10	5-10 yrs	3	7.5 bachelors 35 85
31-40	6	15	11-15 yrs	7	
Age	F %	Experience	F %	professional qualification	F % (Yrs)
31-40		6	15	11-15 yrs	7
41-50	21	52.5	16-20 yrs	8	20
> 50		9	22.5	>20 yrs	22 55
Total	40	100%	Total	40	100%

Analysis of age from Table 1 revealed that out of 40 respondents 4 (10%) fell in the age bracket below 30 years, 6 (15%) age bracket of 31-40, and 21 (52.5%) age bracket 41-50 while 9 (22.5%) age bracket were above 50 years. According to this finding the majority of teachers have inclined towards problem solving and would be capable of supporting VCP and PBL given that experience improves teaching and learning outcome in schools. Findings on work experience revealed that 3 (7.5%) had experience of between 5-10 years, 7 (17.5%) had experience of 11-15 years, 8 (20%) had experience of 16-20 years while majority 22 (55%) had an experience of 20 years. Thus these experiences signify confidence and ability to understand how VCP and PBL can be implemented effectively. Finding on academic qualification indicated that majority 35 (85%) had bachelor's degree while 5 (15%) had master's degree. This finding indicate that teachers are qualified enough to implement VCP and PBL effectively.

7.2 Effectiveness of the Value Creating Pedagogy and Problem Based Learning Approach on Independent Learning

Understanding how students learn is crucial to developing strategies aimed at improving the capacity for independent learning. Teachers were asked to identify effectiveness of PBL on independent learning among students. Findings are summarised in Table 2.

Table 2. Effectiveness of VCP and PBL on Independent Learning

Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Making own decisions about what to learn	47.5%	15%	7.5%	17.5%	12.5%
Sharing responsibility in groups	50%	17.5%	20%	5%	7.5%
Evaluating own experiences independently	52.5%	12.5%	25%	7.5	5%
Demonstrating positive attitudes towards one another	55%	32.5%	5%	5%	2.5%
Students sustain interest in problem solving	45%	30%	5%	12.5%	7.5%
Increased student control over learning	40%	25%	17.5%	20%	2.5%
Students solve challenging problems on their own	47.5%	22.5%	15%	10%	5%

Students apply new knowledge in problem-solving situations	57.5%	12.5%	7.5%	12.5%	10%
I provide scaffolds opportunities for students to model positive behaviour	60%	37.5%	2.5%	0%	0%
Student's ability to connect factual concepts has increased	42.5%	35%	7.5%	12.5%	2.5%

Cumulatively out of 40 respondents 47.5% strongly agreed that students make own decisions about what to learn while 12.5% strongly disagreed. A large numbers of teachers, 50% strongly agreed that students share responsibility in groups. Given that Makiguchi regarded education as the process of unfolding this ability, it should correspond with the absolute purpose of life to create happiness. This implies that the students are well equipped to handle challenging problems in life, although, 7.5% strongly disagreed. 52.5% strongly agreed that students evaluate their experiences independently while 5% strongly disagreed. Although there existed inconsistencies in the manner in which students responded to PBL, quite an encouraging analysis showed that 55% of teachers strongly agreed that students demonstrated positive attitudes towards one another although, 2.5% strongly disagree. When asked to explain this situation, the voice of one teacher captured said the following; *In this school, we encourage peer teaching and conformity to group rules and regulations. Every group has its own goals, and targets to meet at the end of the month. Group members identify different ways of dealing with conflicts within the class. We receive only isolated cases of misbehaviour.* This finding agrees with an earlier one of Kirschner, Sweller, and Clark (2006), who found out that when students attain independent learning, they get motivated to share ideas in group work, apply new knowledge in problem solving and share responsibility. This indicates that when students acquire independent learning, they nurture internal strength that remains unaffected by insincere judgement of society and can truthfully differentiate what is genuine and value what is harmful to society, thus creating happiness as propounded by Makiguchi.

Further still, 45% strongly agreed that when using PBL, students sustain interest in problem solving however, 7.5% strongly agreed. 40% strongly agreed that they noticed increased student control over learning while 2.5% strongly disagreed. About 47.5% strongly agreed that students are able to solve challenging problems. This is an indication that students possess appropriate knowledge, skills, values and attitude required for effective problem solving even though a small proportion of 5% strongly disagreed. While 57.5% teachers strongly agreed that students apply new knowledge in problem-solving situations, 10% strongly disagreed. This means that students are well exposed to essential skills for addressing societal pressing problems. While the majority of the teachers, 60%, strongly agreed that they provided scaffolds opportunities for students to model positive behaviour, none strongly disagreed. This finding corroborates with Makiguchi's view that the role of the teacher in VCP is to encourage flexibility regarding where and how learning will occur and which places will

make appropriate learning environment that creates happiness to students. This was a clear indication that teachers were capable of providing appropriate skills geared towards happiness of students. When asked whether students 'ability to connect factual concepts has increased, 42.5% strongly while 2.5% strongly disagreed, this may create obstruction to implementing independent learning since some teachers do not perceive students as able to learn independently. Although these findings indicate positive results of PBL, society still experiences deterioration in values. In this regard, more studies should be carried out to find out the root causes of value decline in schools.

7.3 Role of Value Creating Pedagogy and Problem Based Learning in Developing Critical Thinking Skills

Developing critical thinking skills among students is vital for addressing social challenges and solving its pressing problems. The study sought to find out how VCP and PBL influence development of critical thinking skills among students. Results are shown in Table 3.

Table 3. Role of the Teacher in Developing Critical Thinking Skills

Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Willingness to consider opinions of others.	45%	37.5%	12.5%	5%	0%
Providing logical ideas to group members.	42.5%	35%	7.5%	7.5%	2.5%
Sharing information with group members.	52.5%	27.5%	10%	7.5%	2.5%
Listening to different perspectives and viewpoints of group members.	47.5%	35%	15%	2.5%	0%
Contributing positively to challenges within the school environment.	52.5%	27.5%	5%	7.5%	0%
Evaluating their own behaviour.	47.5%	27.5%	7.5%	5%	12.5%
Making reasonable and defensible decisions about welfare in school.	50%	30%	10%	7.5%	2.5%
Communicating effectively with others in figuring out solutions to complex problems.	62.5%	32.5%	5%	0%	0%
Raising vital questions and problems, formulating them clearly.	57.5%	30%	7.5%	5%	0%
Thinking open-mindedly within alternative systems of thought and recognize practical consequences.	50%	32.5%	12.5%	2.5%	2.5%

Findings in Table 3 showed that out of 40 respondents 45% strongly agreed that students are willing to consider opinions of others while none strongly disagreed. By so doing, improving in critical skills

helped students to sharpen ability more clearly and effectively, reduced stress and anxiety which contributed to happiness. It was evident from the study finding that PBL has proved effective in most schools. Even though 42.5% of the teachers strongly agreed students provide logical ideas to group members 2.5% strongly disagreed. It was clear from the study finding that the majority of the teachers, 52.5% strongly agreed that students relate ideas and information with group members while 2.5% strongly disagreed. Consequently critical thinking results in students' flexibility, appropriate response, correct predictions and coherent decision-making and responsibility that lead to increase in happiness. In this regard (Klug et al., 2014), argued that in order to foster an open and trusting atmosphere, the learning strategy adopted should reflect beliefs that students are capable of developing critical thinking skills vital for problem solving in society. Further still, 47.5% strongly agreed that students listen to different perspectives and viewpoints of group members while none strongly disagreed. This depicts the commitment of teachers in developing positive skills for problem solving. Likewise, teachers who encourage students towards such skills lay a foundation for a happy and meaningful life. Thus enhancing students' understanding of positive attitudes toward one another provides a platform for addressing challenges in the society. Furthermore, critical thinking skills could predict happiness which is consistent with Makiguchi's goal of education. With regard to whether students contribute positively to challenges within the school environment, 52.5% strongly agreed while none disagreed. The study then sought to know what teachers do to achieve this, one volunteer said the following:

[The school is very supportive. In fact, any opportunity for a student to contribute positively in school and at home and in the community is highly regarded. On a monthly basis we reward any positive behaviour that is noticed. Our students compete for the rewards. Currently, parents have joined the school in contributing to this initiative. Anyway before we introduced rewards, most of our students went home on suspension for indiscipline cases, ours is a success story]. This finding was in conformity with of Riddell (2007), who found out that those students who engage in critical thinking select on appropriate problem solving behaviour, evaluate effectiveness and make informed judgements.

Further findings indicated that 47.5% strongly agreed that students evaluate their own behaviour while 12.5% strongly disagreed. If students have high critical thinking skills the level of happiness and contentment increases. This implies that the support teachers give to students could have largely contributed to positive behaviour witnessed in some schools. This was closely followed by 50% who strongly agreed that students make reasonable and defensible decisions about welfare in school while 2.5%, strongly disagreed. The majority, 62.5% strongly agreed that students communicate effectively with others in figuring out solutions to complex problems, followed by 57.5%, who strongly agreed that students raise vital questions and problems, formulating them clearly. This could be attributed to the reward system introduced in school which has helped in reducing indiscipline cases. Further still, 50% strongly agreed that students think open-mindedly within alternative systems of thought and recognize practical consequences while 2.5% strongly disagreed. This results pointed out a dire need to

equip students with appropriate knowledge that enhance skills in problem solving in order to become responsible and informed citizens.

7.4 Students' Understanding of Value Creating Pedagogy, Problem Based Learning and Decision Making

Self-directed individuals act intentionally with understanding and without controlling influences. The study examined students' perception of VCP and PBL on decision making. Findings are summarized in Table 4.

Table 4. Effectiveness of Decision Making in School

Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Recognizing relevance of learning to own daily life.	52.5%	25%	20%	2.5%	0%
Evaluating opinions of members.	50%	20%	5%	7.5%	7.5%
Comprehension improving constantly.	55%	37.5%	5%	2.5%	0%
Applying learning to daily situations.	60%	30%	7.5%	2.5%	0%
Evaluating findings and tackling tasks.	52.5%	37.5%	5%	2.5%	2.5%
Sharing ideas clearly with group members.	50%	47.5%	2.5%	0%	0%
Solving problems by seeking answers.	7.5%	2.5%	0%	37.5%	52.5%
Developing orderly plans to address complex problems.	57.5%	32.5%	7.5%	2.5%	0%
Helping students decide on problems arising in school.	52.5%	40%	7.5%	0%	0%
Understanding opinions of others.	50%	37.5%	10%	0%	2.5%

From Table 4 out of 40 students, 52.5% strongly agreed that they recognize relevance of what they learn to the own daily life while none disagreed. This finding implies that PBL is well suited to helping students to reflect on their own experiences. While 50% strongly agreed that they find themselves evaluating opinions of other student's arguments, 7.5% strongly disagreed. This could be attributed to differences in diversity. When asked whether comprehension has improved, 55% strongly agreed while none disagreed. This result could be anchored on the arguments that in PBL students work in collaborative groups to identify what they need to learn in order to solve a problem. Regarding whether they have ability to apply what they learn to daily situations, the majority, 60%, strongly agreed, while none disagreed. Thus happiness is realized if what students learn is relevant to their lives. One student said the following; *[I am proud of coming up with resourceful alternatives, this makes my friends to*

look to me to find logical principles to relate to decisions. On one occasion I was surprised when the principal called my name during assembly. He announced that I am one of the students who are good at developing orderly plans for the entire class. From that incident my classmates nicknamed me "Netanyahu"—uuhhh am proud of this new identity]. This finding suggests that PBL offers potential to help students develop flexible understanding of lifelong skills. These skills enable independent learning, decision making, contentment, joy, combined with well-being contributes to a sense of happiness among students.

Further findings on whether students are able to evaluate their findings and look forward to challenging tasks, 52.5% strongly while 2.5% strongly disagreed. This finding agrees with Richard, Martin, Maarten, and Edward (2011), who indicated that autonomous learners develop simulations of lifelong learning, allowing them to become aware of and able to manage challenges arising in life. Enhancing student teamwork is purported to be a major advantage of PBL. When asked whether they share ideas clearly with group members, 50%, strongly agreed while none disagreed. This finding suggests effectiveness of PBL in helping students take responsibility of their own learning. This positive finding is likely to enhance students' personal growth and increase their confidence in learning therefore setting a basis for happy and meaningful lives.

However, 7.5% strongly agreed that the best way to solve problems is to ask someone else for an answer while 52.5% strongly disagreed. Further still, 57.5% strongly agreed that they are good at developing orderly plans to address complex problems while none disagreed. This finding could be a clear indication that students have built confidence in the ability to handle challenging situations. Further still, 52.5% strongly agreed that other students look for them to decide when problems arise in school while none disagreed. This finding could suggest that through PBL students are able to acquire skills necessary for conflict management. Finally, 50% strongly agreed that they take pride in their ability to understand the opinions of others, while 2.5% strongly disagreed. These indicate that having the ability to understand the opinions of others contributes to simulations that allow for problem solving.

8. Conclusion

Based on the findings, I concluded that though VCP and problem based learning supports problem solving skills, students require exposure to an effective PBL programme concerned on the essential fundamentals contributing to happiness, positive attitude to life and emotional balance. This includes the responsibility of the teacher in intervening student's learning in particular in problem solving skills. According to the study finding the majority of teachers have inclined towards problem solving and would be capable of supporting VCP and PBL given that experience improves teaching and learning outcome in schools. However, though the majority of schools develop their teaching through PBL, enhancing knowledge on acquiring learning skills to enable students adjust to societal challenges is inadequate. Despite this finding, PBL proved effective in helping students take responsibility of their

own learning. This positive finding is likely to enhance students' personal growth and increase their confidence in learning therefore setting a basis for happy and meaningful lives as advocated in VCP. Although these findings indicate positive results of PBL, society still experiences deterioration in values. In this regard, more studies should be carried out to find out the root causes of value decline in schools. In addition, there is a dire need to equip students with appropriate knowledge that enhance skills in problem solving in order to become responsible and informed citizens.

9. Recommendations

9.1 Recommendations for Practice

Teacher training should adopt VCP and PBL for instilling independent learning, critical thinking, and to ensure that students leave school with appropriate knowledge, skills, attitudes and values for confronting challenges in society. The study established that most teachers use the problem based learning approach and students are able to cope with challenges in school. The major challenge is that society still experiences incidences of anti-social behaviour exhibited by youth and school going children. The study recommends teachers to prepare student effectively in order to deal with challenges even after completing school.

9.2 Recommendations for Policy

The government should come up with effective policies for creating a meaningful curriculum that emphasises value creating pedagogy and problem based learning. The study noted inconsistencies in the way schools implemented problem based learning in terms of increasing student knowledge and skills in problem solving. Despite the finding that PBL improves class atmosphere, it only applied to the educational context. The study recommends that the Ministry of Education should develop a national monitoring and evaluation framework for value creating education. The Ministry should introduce a national policy on VCP and PBL as pedagogical approaches across all curricular that can be used to develop relevant and engaging values connected to global contexts. Schools should monitor implementation of PBL and ensure that students are exposed to appropriate values to become responsible and informed citizens.

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