

**WINNING THE FUTURE OF EDUCATION IN AFRICA THROUGH PROJECT
BASE LEARNING (PBL)**

**“HOW THE IMPLEMENTATION OF PBL PEDAGOGY CAN
TRANSFORM AFRICA’S EDUCATIONAL SYSTEM FROM THEORY
BASE TO PRACTICAL BASE IN SCHOOL CURRICULUM”**

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Abstract

This paper talks about how project-based learning (PBL) is being infused or implemented in the educational sphere of Africa. The paper navigates through the liminal aspects of PBL as a pedagogical approach to bridge the divide between theoretical knowledge and its application within school curriculums. Given that contextualized learning can be embodied, the abstract vehemently discusses that PBL creates an opportunity for students to work on projects that are of academic relevance in their local settings. It presents PBL's growth of critical thinking, problem-solving, cooperation, and communications which is vital in getting young citizens to prepare for the 21st century revolution. In addition, the abstract stresses the possibility that PBL could become a stimulus to creativity and innovation wherein learning becomes motivated from within by intrinsic motivations. The paper advocates for a holistic approach that is based on teacher's professional development with the provision of adequate infrastructural facilities and resource allocation, thus ensuring the success and sustainability of PBL's in African education systems. In the end, the paper positions this as a transformative educational methodology that has great potential in helping to shape an African generation that is prepared for a great future.

Introduction

The need to develop new forms of pedagogical thinking that combine educational theory and practice, leading towards the development of 'competent' university graduates has risen significantly in the current dynamic global education environment. This sense of urgency is especially apparent in the realm of education, specifically within Africa's schools, where the normative stress on mechanical memory and abstract knowledge fails to prepare students

adequately for the machinations of the 2000s. This paper aims to demonstrate a sustainable implementation of PBL and how possibly it can alter the displacement of AEF in Africa.

The efficacy of project-based learning as an approach that helps integrate what is generically taught using practical hands-on projects that embody existing theoretical concepts in real-world applications has also been proven. Examining holistically, it is in the current literature out there that project-based learning can be defined by its potential implications for Africans and how it will play a major role in changing from a theory-oriented learning method to a practical application.

Statement of the Problem

Project-based learning is known to have huge potential; however, there exists a significant lack of implementation of this transformative approach within the system considered. The conventional system believes more in the accrual of theoretical knowledge, in the realization that obtaining adequate practical knowledge is a daunting order. The evident gap in critical thinking, problem-solving, and poor connection between theory basis and practice takes the shape of which lack of essential skills, insufficient problem-solving capabilities, and unconformity between academic learning and real use.

This research seeks to look at the influence of project-based learning and characterize its impact on educational results, and risk factors in its implementation, and also identify strategic interventions to improve a culture that is more active and receptive in Africa. By proceeding down this path, the goal is to provide valuable knowledge regarding the current dialogue on educational transformation and encourage all towards a better approach towards innovation, one where students are created who not only succeed in school but as active, participatory members of society.

Limitations of the Study

Generalizability

The conclusions of the given research may be limited in their transferability to a more general population because of the particular circumstances or profile characteristics on which they depend.

Contextual Constraints

The study is done within a confined time, regional location, or certain institution and this limits its validity in terms of transferability to be applied to other settings and different contexts.

Sample Size and Composition

Some possible limitations of the study sample size and composition can be limited in terms of making statements that will apply to all, thus limiting conclusions.

Data collection constraints

Data collection methods that pose difficulties, such as failing to reach the action rate or a non-uniform sample may make it harder even for an appropriate interpretation of the data.

Time Constraints

By limiting the time, this study may be limited since it might not go far and wide making some of the work remain uncovered. This can limit the possibility of further analysis, suppressing insights on other variables, or conducting long-term observation.

Educational System Viability

Variations to be found in structures of education systems from region to country may impact how widespread this can be applied in different educational settings.

External factors

Rules, economic contexts, or societies may change unexpectedly from the outside of the study findings. Thus, some unpredicted external events are altered periodically.

Methodology

Research Design

This study will utilize a mixed-method research design as the method of data collection. This involves both qualitative and quantitative approaches to provide an in-depth description of project-based learning. This design enables a detailed comprehensive investigation into the issues of project-based learning in shaping the African educational system.

Participants and Sampling

The population would entail various categories of students, teachers, and policymakers who are based in diverse schools within different African nations. In sampling, a mixed-method random sampling research design will be used to ensure inclusion in terms of locality, educational levels, and socioeconomic status.

Data Collection

The study will make use of both qualitative and quantitative data. In regards to the qualitative data, the study will conduct in-depth interviews and focus group discussions with teachers, students, and policymakers to provide qualitative insights into the perceptions of PBL; crucial challenges that may impede its instant adoption; and what transformative effects it may avail, among others. Quantitative data on academic performance and students' perceived strengths of critical thinking

skills, as well as satisfaction with the project-based learning method, will be gained through administered surveys that will have a larger sample size.

Literature Review

There exists a vast literature on project-based learning and theory-based learning. The new education is set by a changed landscape of an educational world which necessitates novel approaches to close the gap between theory and practice. This study reviews literature that examines the possibility of using a project-based approach and its effects as an alternative for transforming African education.

According to Guido (2022), project-based learning as an educational method aims to stimulate ‘active learning’ by employing practical, real-life tasks as the main teaching strategy. Several researchers reveal its high level of efficiency in stimulating the development of reasoning, problem-solving, and solution-seeking, as well as partnership skills. The available literature presupposes that project-based learning creates an environment in which students can connect with local projects that serve their immediate communal needs and issues. This is further corroborated by x’s assertions that project-based learning is an ingredient that nurtures critical thinking and problem-solving abilities due to its successful implementation. As a result of solving authentic problems, students can more reliably analyze information, evaluate courses of action according to pre-defined criteria, and make informed decisions.

With a plethora of literature on the subject matter, there exist huge gaps that ought to be filled. Whereas most researchers agree that project-based learning is the way to go, few have contextualized its implementation in the African set-up, and its potential effects in transforming the way of thinking. This paper seeks to bridge that gap.

Compared to the developed world, Africa's educational system lags, calling for a gradual change of approach from the traditional, less effective theory-based learning to a more dynamic practical application. Implementing the project-based learning approach is a sure way of transforming the educational system, leading to unprecedented transformation. Moreover, evidence shows that project-based learning promotes the interaction between the learners and real-life materials. This mode of learning, if positively employed, can bring positive changes.

Contextualized Learning

According to Hutt (2021), project-based learning fosters contextualized learning among the learners, allowing them to have direct and defined engagement with the projects and materials that are in proximity to their local context. Adapting this approach ensures that the learners get exposed to local and real-life challenges that they experience in their day-to-day lives as opposed to interacting with challenges that they do not relate to. By focusing on the learners' own cultures, environments, experiences, and challenges, the learning process becomes more meaningful and engaging as the learners get connected to the content.

Proponents of project-based learning discredit theory-based learning for its apparent lack of relevance to the lives of the learners. In theory-based learning, the subject matter rarely relates to the interests and the day-to-day experiences of the learners. This approach denies the learners real-life examples and experiences, a recipe for apathy towards the content and materials that the learners are exposed to. Moreover, theory-based learning may be based on contradictory cultural experiences, making it difficult for learners to appreciate. The perfect cure for this glaring challenge entails tailoring the educational content to the local context of the learners. By incorporating locally available case studies and examples, the learners get to interact with materials that are aligned with their immediate needs.

The chosen learning activities need to be discussed with real-world applications. Rather than merely considering ideas in theory, contextual learning teaches the application of concepts to solve real problems or deal with issues directly related to a practitioner's discipline. In the case of contextualized learning, the local inhabitants are usually the agents engaged.

Critical Thinking and Problem-solving

Critical thinking is a cognitive skill whereby an individual can infer or evaluate matters based on analysis of their complexities and finally solve them. These skills are necessary for survival and quality of life every day, but also from an educational perspective as well as relevance to the workplace which ultimately affects how people perform. Critical thinking, on the other hand, is a skillful and purposeful process that involves the conception, application, analysis, synthesis, and evaluation of information to provide direction to active belief as well as actions.

In project-based learning, concepts are decomposed to identify the basic structure or to find out something embedded in such concepts. Under this tenet, learners get to evaluate the reliability, adequacy, and merits of information or statements being provided. The ability to make inferences to follow the gaps in logic based on existing evidence and reasoning helps the learners to understand the concepts floated. According to Harris & Allen (2022), project-based learning fosters critical thinking, enabling individual learners to make informed decisions and solve problems by approaching issues with an analytical mindset. Moreover, such an approach helps learners to properly evaluate information and develop a deep understanding of various concepts.

Encouraging critical thinking and problem-solving abilities in educational settings and workplace scenarios becomes of great importance as people get to learn early on how prepared an individual is to handle the challenges of the modern world. For that reason, in addition to being

right, these skills are all about learning to be methodical and analytical when interpreting and responding to challenges. This includes activities that promote critical thinking and problem-solving in educational experiences early on, allowing learners to develop these essential skills at a younger age which provides the base for productive decision-making and creative solutions programmed for life.

Collaboration and Communication Skills

Unlike theory-based learning, project-based learning involves collaborative group work among the learners. This has a ripple effect as it tends to promote both teamwork among the learners and their communication skills. By interacting, the students learn how to relate well with others and how to effectively handle others. By sharing ideas and communicating their findings, the learners get exposed to a collaborative approach, hence enabling their all-round growth.

Collaboration in project-based learning enhances one's participation in groups. More often than not, all learners in a group will be called upon to make contributions to the subject matter of the discussion. This helps boost the self-confidence of the learners. Moreover, group work brings out conflict resolution techniques as they will be required to handle the disagreements and conflicts that may arise out of different opinions raised by the learners. The flexibility and shared decision-making exhibited in project-based learning also foster creativity as one will be required to come up with innovative solutions.

Project-based learning helps boost the communication skills of the learners as the shared roles encourage them to communicate with one another from time to time in discussing the challenges and the potential solutions to prompts. Whether through written, verbal, or non-verbal

means, the students learn to create harmony in interpreting tasks. This brings about clarity of thought to ensure the information shared is clear and understandable.

Application of Knowledge

This refers to the ability of the learners to utilize the skills, information, and understanding of real-world situations. Theoretical learning, in most cases, encourages memorialization and comprehension of the theoretical concepts, rendering it less effective as the learners strive to cram whatever information they are subjected to. This is different from project-based learning which is not only engaging but also dictates that the learners ought to look at the broad picture in regards to making use of the information. Project-based learning is crucial in that it allows the learners to put into application the theoretical knowledge they receive as they get subjected to practical situations, hence minimizing the gap that may exist between theory and practice. This approach helps enhance understanding and enables the learners to have an adequate grasp of the concepts they are exposed to.

Proper application of the knowledge gained from project-based learning helps improve the learners' problem-solving skills as they get to identify the challenges they are facing and how to effectively tackle them. According to Guido (2022), this also enhances one's critical thinking capacity.

Enhancing Creativity and Innovation.

Proponents of project-based learning point towards its ability to provide opportunities for learners to unleash their creativity. This, they argue, can be achieved by designing and implementing projects. Whenever this approach is employed, the learners are called upon to be innovative and explore new ideas, hence preparing the students to adapt to the ever-changing global landscape.

Creativity is a very crucial aspect in modern problem-solving among students and it enables students to approach and analyze challenges that they may face with a fresh perspective. Traditional theory-based learning focuses more on the ability to cram concepts for the sole purpose of passing exams, hence failing to provide a long-term solution to learners. Moreover, there is sufficient evidence that creativity helps drive innovation as it provides the learners with the requisite raw materials for solutions and new ideas. Innovation, on the other hand, entails the process of transforming ideas into visible outcomes. It helps learners implement and improve the concepts they are exposed to and come up with valuable conclusions.

Career readiness

Project-based learning plays a significant role in shaping and preparing learners for the job market, unlike theory-based learning. One of the reasons for this is that project-based learning focuses on practical skills and real-world applications. This approach helps learners to develop adequate skills that may be required in different fields, putting them in better situations and being prepared for any eventuality. Moreover, project-based learning aligns education with the demands of the current market. This prepares the students well and prepares them for the job market. In addition, this type of learning fosters the learners' entrepreneurial mindset. This is essential because the learners get to identify lucrative opportunities and venture into them for their benefit.

Teacher Professional Development

One of the advantages of project-based learning is the increased interaction between the learners and their teachers. As already highlighted, project-based learning is quite engaging and involving as it requires the participants to have extensive interaction. Successful implementation of project-based learning requires teachers who are well trained, as opposed to other forms of learning that

are theory-based. When this is the case, governments inevitably have to invest in training the teachers by facilitating teacher professional development through seminars and other short courses. Inevitably, teachers get exposed to current projects and gain massive information that is beneficial to them and society.

Conclusion

To sum up, Africa's educational landscape will vastly benefit through the exploration of project-based learning, which has a transformative effect. Whereas the theoretical approach to learning has its inherent shortcomings, project-based learning mitigates these challenges and illuminates a positive trajectory to a seamless integration of theory with practice. The currently exhibited educational gaps in the traditional models will be wiped out as project-based learning stands to cultivate essential skills for learners, effectively aligning learning experiences with the market demands in the contemporary world.

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