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An indigenized framework for game design curriculum for African Universities

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Abstract: *The aim of this paper is to reposition game design studies curriculum in Africa by modelling the African Ubuntu philosophy. This study utilized an inductive content analysis via transformative paradigm to identify relevant tenants that contribute to this conceptual paper. Furthermore, thematic approach was utilized to organize the are identified points int categories and subcategories. The utilization and introduction of the African ubuntu philosophy to game design curriculum follows 9 vital stages will be actualized. Researchers are motivated to conduct empirical and qualitative experiments on the African ubuntu philosophy for indigenized game curriculum. Utilizing indigenization as the game design curriculum will increase enrolment, programs easily accessible and help African content become global, as well as help African economies to grow. An indigenized policy will help many local talents and grow the south African economy.*

Keywords*: Indigenization; Game Education; Culture; Africanization.*

Introduction

Game developers and designers and global policy makers have designed the practical game design courses which are utilized in South African universities, the aim of these courses is to provide a new form of graduates that are creative and technically gifted, these are graduates who can also be called or referred to as artists (Chia, 2022). They are artists because they have the creative ability to design the various needs of these games (board or digital games). This artistry can be seen through narrative design, movement in video games, music in video games, and game play in video games. The provision of this game design courses has been globally accepted but is gradually growing within Africa, especially South Africa where the continents game development hub is based and is a massively growing hub (Geyser, 2018). The teaching of game design has been successful as students do not necessarily have to go and look for jobs, they can immediately start creating the video games or board games immediately after completing their degrees, or even before completing their degree in game design. Developed games are uploaded on play stores or google stores where players of these games can pay a fee for playing or downloading the games.

The concept of game play is not a new event, game play has been an active element in the lives of people irrespective of gender and of age groups Game studies include studies on game design, game development and the curriculum developed for students to learn how to make games such as video games, board games, UX games. Games studies Education is not a new event, but literature has shown that there is need for more studies on how best to provide a robust environment for effective games study as the current techniques are not seem robust indigenous and inclusive.

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There has been discussion on what are the topics meant to be in a game design curriculum, and they settled on 9 modules which were created by International Game Developers Association (IGDA) Aarseth, (2004). For African to properly participate and reap the benefits of game design courses there is a need to remove certain barriers from game design course such as the lack of local language in video games, lack of local culture in video games, inability to make games education inclusive. Geyser, (2018) has indicated that games education required decolonization and there have been difficulties which are exacerbated with respect to teaching game design courses. Geyser, (2016) investigated the game design curriculum and revealed that the curriculum required a change to portray a new perspective called Africanization. Africanization can be seen as the utilization of African content in improving the learning experience of students. Furthermore Geyser, (2016) indicated there was a need for common play practice where there are two main components of game design courses namely game studies and game design, these two concepts need to be implemented and introduced through Africanization themes.

Geyser, (2018) further speaks to the lack to diversity of games, which can serve as a major factor for the lack of Africanization of the gaming curriculum. While South Africa is a unique case as the university system had been frozen by several economic issues such as Fees must fall, colonial masters must fall, all these are issues caused by high levels on inequalities within the country (Langa, 2017). Hall, (2015) indicated other issues such as the unavailability of technology to students, and these can clearly be seen across or along the racial lines, where there is an extremely uneven distribution of wealth, where the blacks do not have the wealth or financial resources to purchases the required tools for their academic progress within game design courses. Universities such as the University of the Witwatersrand have now started providing Laptops to students, which serves as a method or approach to redress the situation.

Mukherjee et al., (2018) argues that while decolonization is important there is a need to look at decolonization through other lenses other than the obvious lenses utilized in several arguments such as rage, religion, and gender lines. Hall et al., (2017) indicated that decolonization could take place through inclusion of creative practice and knowledge production, which are one of the approaches South African universities have started adopting to promote decolonization. One of the limitations to decolonization in the curriculum is the utilization of western approaches or themes to teach game design or video game designs. Good examples include Broforce by FreeLives (Van der Maerwe, 2021) which has utilized an entire western team which also portrays a western perspective. For Africans to be liberated there needs to be a radical indigenization at the universities which serve as the environment to provide the knowledge and also the culture protectors for these students.

Decolonization is not a new terminology utilized in south African, since its independence in 1994 the educational sectors has required decolonization, and this has been a slow but progressive process. Decolonization is not only in the approach, but decolonization must happen with respect to the tools utilized to educate students, and the digital tools utilized by students to submit their assignments such as the provision of African based digital tools such as the sling and hammer, African military dresses, African historical weapons. The old norm of paper-based assessments needs to accommodate other forms of assessment

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such as audio assessments, video assessments, creative assessments. Decolonization of the gaming curriculum can also be seen through the program done by the University of the Witwatersrand which provided a playroom for students with the aim that all students would utilize the experience of playing the various video games to improve their studies, where lecturers or academics while teaching or while preparing their weekly lecture notes or slides, can direct students to the playroom to play some selected games before the class starts. The benefit of this is that it provides students with the learning experience that is required to understand certain gaming concepts, secondly it helps to ensure that students from disadvantaged backgrounds do not have to look for finances to buy these games (board or video), or even buy the video game console. There has been enough discussion on the utilization of decolonization but there is a need to move from decolonization to indigenization (Mccubbin et al., 2023).

Decolonization focuses on deconstructing of ideologies of the colonial masters such as privilege and superiority, and addressing unbalanced power dynamics (Pidgeon et al., (2017). And this can be seen from the perspective that students still create video games based on colonial perspectives such games include Broforce (Freelives, 2013). Indigenization is the process of naturalizing indigenous intentions, processes, and interactions by making them evident to transform spaces, hearts, and places. The research gaps include the lack of studies that focus on indigenized and decolonized gaming curriculums for African students, lack of understanding of how to implement an indigenized gaming curriculum to promote African themed games by African students. The objective of the research is to provide a guideline or model on how an indigenized gaming curriculum can be effectively implemented to promote learning. The limitation of this research is that it only focused on a South African public university. This therefore leads to the research question which is How can an Indigenization based educational framework for game design courses be developed with respect to African students?

There has been discussion on the African ubuntu Philosophy which is based on the idea of ubuntuism. Then what is ubuntuism, ubuntuism is a word coined from the people of south Africa meaning we are because you are, indirectly saying we are one in all our activities jobs, family, education, and social engagements. Bhuda et al., (2022) explains that the African ubuntu philosophy is an embodiment of socio-cultural framework which influenced all institutions and individuals within the African continent. For the African Ubuntu philosophy to be properly incorporated there is a need for all stake holders to be included in policy and practice development (Khomba, 2013). For the African ubuntu philosophy to be implemented into polices there is a need to understand its dynamics and its application within the African setting. The notion of an African through ubuntu is an African cannot be a secluded individual but a person that works as a group. During times of conflict where poverty, deprivation and lack of incomes were persistent people survived through brotherly and sisterly cooperation and care (Khomba et al., 2013). The motive and notion of African ubuntu philosophy is to ensure that we are a people are aware that what we are doing must and should be able to empower the community and improve the community through people empowerment or infrastructure empowerment or skills acquisition. African ubuntu philosophy can redress and

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unlock the strength and capacity of the culture (African culture) where students and individuals can freely express their aspirations and interests in a fair and compassionate manner with the aim of building communities through justice and communal growth. Ubuntuism focuses on the cultural communal life and rejects the notion that a person exists on his or her own (Bhuda et al., 2022).

The above explanation of the African ubuntu philosophy showcases the African communities as community based and collective in character. The African ubuntu philosophy can be seen as the basis for most or all groups within the African setting. Examples of these groups include universities, corporate organizations, educational setting, management setting which all operate for the African growth. Thus, the African Ubuntu philosophy can influence and play a key role in the indigenization of the South African gaming education curriculum, as it can influence how courses are being taught and how students receive games education. The needed components of theory have been adopted to conduct a literature review and the development of the conceptual framework.

Method

This research utilizes a deductive and inductive approach through a transformative paradigm which is transformative (Omodan et al., 2022). The benefit of this approach is that it promotes Multiparametric Design Space (MDS) which allows flexibility within holism. The social sciences and humanities utilize the transformative paradigm to explain the notions behind social injustices, social unrest by investigating the links between power structures and inequalities within a society (Adewale, 2023). The transformative paradigm with respect to this study explains the causes of lack of indigenization as a form of social injustice. Once this has been well discussed, the study will further utilize the transformative paradigm assumptions to explain methods or approaches to ensure social justice and the creation of ways for marginalized groups to properly benefit through indigenization of the game design curriculum.

Thematic approach to analyse the critical matter intensively. Thematic analysis can be explained as technique for research appropriate for identifying, analysing, and interpreting the paradigm of qualitative data meaning (Adewale, 2023; Clarke et al., 2015). The major components of thematic analysis include familiarization with data, code generation, theme construction, review of potential themes, naming and defining themes and production of reports (Adewale, 2023; Terry et al., 2017). The discovery of insights through interpretations are one the benefits of thematic analysis in various studies (Adewale, 2023). Other benefits include providing academics the opportunity to link themes to a content, which further encourages complexity and precision within the research work.

Based on the guidelines and suggestions by Terry et al., (2017) on how best to perform thematic analysis, this study locates in data in the African Ubuntu philosophy. This study recons with the African ubuntu philosophy and constructs its themes from the philosophy. Furthermore, this paper constructs its themes, reviews potential themes, and makes sense of them based on the African ubuntu philosophy. In conclusion the derived themes will be

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explained in line with the specific objectives of this study to produce the report. All data was obtained from reviewing key documents (Khomba, 2013; Adewale, 2023; Karppinen et al., 2023; Bhuda et al., 2022). The African ubuntu philosophy is relevant to this conceptual paper as it promotes the indigenization of game design curriculums in South African Universities as a significant mismatch and clog in the wheel of the success of the game design programs, Furthermore, provides an analysis which is conceptual on how to fix the mismatch.

Results and Discussion

The utilization of a thematic approach was implemented to identify the barriers to the use of Indigenization in South African Universities and to develop a conceptual model for Game Design Education for African Universities.

Barriers to the indigenization of Game design Curriculum for African Universities. The first challenge is the big game development companies which are a critical problem as they do not promote African content in their games, allow the African developers and game designers to have the finances to develop game studios to promote African content through video games. Who portray games based on western themes and tools, there are hardly video games that utilize African themes or African weapons. These large companies provide financing through advertisement for western themes digital video games (Iwatani et al., (2015), there is a need to provide funding for locally directed video games. Furthermore, there is still a dominance of European tools and methods in the teaching and learning of games, where there is a limited utilization of African themes in the teaching and learning of video games development, as well as the utilization of western themed board games instead of the local board games which are close to the student's backgrounds such as Awale board game (Randle, 2013).

Secondly another barrier is lack of Awareness of the future benefits of game design courses for black students, most students are told to study medicine or engineering there is a little or no awareness for students to be cognisance of the course. Jayalath et al., (2022) indicated the lack of awareness in these courses, thereby indicating there is little parental support or little parental or community motivation for students to study game design courses. Furthermore, the lack of financial backing for equipment that are required for students to properly obtain these skills. The south African government provides financial fee support, but these does not get to all the students, only those who meet a certain qualifying requirement.

Another issue is lack of evidence of students in first year university study being able to properly utilize computers or technology devices. South African public high schools are not teaching students how to utilize computers, there are computer rooms but there is no delivery of learning due to lack of computer science teachers (Mwapwele et al., 2019). Most of the teachers are the principals who do not have the technical skills to teach the students the proper utilization of the various applications on the computers. Furthermore, that means when these students get to the university or game design courses, they are not able to meet the technical needs for the course, as they must first focus on understanding how to utilize a computer.

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Conceptual Model for Adopting Indigenized Game Design Curriculum for African Universities. The incorporation of the required approaches in indigenized game design education requires proper planning. Building on the philosophical lens of the African Ubuntu Philosophy (Khimba, 2013) the following models can be adopted in African universities.

Stage one, Provision of computer literacies: Computer literacies are a critical aspect for the teaching of game design modules, these literacies include zipping files, compressing files, while there is notable research indicating that several high schools have not properly utilized the computer laboratories, then there is a need to ensure that students in their first year have the required computer literacies to ensure that succeed in the course.

Stage two, Decolonization of games: Games need to be decolonized, there needs to be a clear explanation of how these games were created and why they were created. This further speaks to the utilization of local contents on teaching. A good example is utilizing board games in teaching such as Awale (Randle, 2013). The utilization of these African board games promotes indigenous knowledge and also serve as a tool for mathematical skills acquisition.

Stage three, Utilization of local content: Local content is a very good tool to utilize t motivate students, African is a continent of rich history especially with games such as board games, Awale in Nigeria, Morabaraba in South Africa, Oware in Ghana. All these can be utilized in teaching games, the creation of adventure video games, could utilize story themes, that speak to the diverse cultures and navigation of the diverse cultures through the video games, the spider man gam utilized Chinese culture, we can create an African spiderman who utilizes African mythological creatures such as tokoloshi (South African), Madam koi koi (Nigeria).

Stage four, Curriculum adaption to African themes: Curriculum must addressed and reorganized based on African themes, most curriculum is based on western approaches and tools or techniques. Even the asset creations are based on western themes and non from the African perspective. There is a need to adapt the curriculum to the African themed curriculum, As well as encouragement for the utilization of local language within these video games (Adewale, 2021). The utilization of these local language within the games will motivate gamers to see themselves through these games especially video games.

Stage five, Capacity building for teacher with respect to African content: For a student to be able to build a rich content, he needs to be guided by the right faculty, there needs to be an appropriate capacity to guide the students (Marhaya et al., 2015). These capacities building include provision of African history lecturers, game developers with proper knowledge of Africa, narrative writers with good writing skills. Other approaches to capacity building is the provision of a playroom where students can play these digital games through the playrooms consoles.

Stage six, Development of learning resources; There needs to be a platform for the storage of these African based learning resources, the benefit of this is that it enables the conservation of African history and provide an avenue for students to utilize the rich African history in their development of video games. Adewale, (2023) has disused the importance of learning resources in mother tongue for student consumption.

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Stage Seven, Community awareness engagement, one of the benefits of African culture is that through the incorporation in video games, there is a massive audience. The provision of venues to display or events to show case these video games will increase the awareness and attract more African students to learning more of video games, this will also promote the narrative for the need for African themed video games. Rajah, (2020) has indicated that community engagement can be a means to restore the indigenous education of Africans.

Stage Eight, Continuous improvement: This is an aspect that is required as games education gradually transforms, there is a need to monitor the trends and investigate the new factors that inhibits the growth of the academic industry, and to provide new techniques to manage and mitigate issues. Continuous improvements ensure quality assurance through regular adaptation of learning resources, as well as provision of feedback and evaluations of teaching and learning (Adewale, 2023).

Conclusion

This article investigated the root causes for the lack of implementation of indigenization within the game design course environment in South Africa, especially at the tertiary level. Anchoring upon the African ubuntu philosophy and transformation paradigm, 4 thematic areas were identified that can be explored for dismantling social imbalance within game design courses. The study therefore identified 8 practices that African ubuntu principles could be introduced through while teaching game design courses namely provision of computer literacies, decolonization of games, utilization of local content, curriculum adaptation to African themes, capacity building, development of learning resources, community awareness engagement and continuous improvement.

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