IOSR Journal of Computer Engineering (IOSR-JCE)
e-ISSN: 2278-0661,p-ISSN: 2278-8727, Volume 23, Issue 6, Ser. I (Nov. –Dec. 2021), PP 45-52
www.iosrjournals.org

Developing an Animated Interactive Digital Game Using Computer Tools In Relevance To Intangible Cultural Heritage With Shona As A Vehicle

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Abstract*: This paper is part of a PhD study focusing on the creation of an object that has the ability of motion that runs on a computer, follows certain rules, entertains, communicates and reaches a specific goal of revitalising, preserving and enhancing intergeneration transfer of vast knowledge involved with artifacts, representations and instruments. Data was collected using interviews that had structured questions. The data was collected from the custodians of the Hurungwe tradition to shape the building process of the game design. This study outlined the significance of ICH and its great need to be preserved in all living generations. While the current generation did not know much about their cultural history and norms, they occupied themselves with foreign video games. The study collected that engagement is the key factor which maintains the children's focus and entertainment. Interactive digital game come as an ICT tool which is based on a community inspired cultural background. The game makes use of smart gadgets that already exists to bring back the lost heritage to the current generation using the local Shona language. Vivid innovations such as virtual games and increased reality have an unmistakable potential to help the encountering of ICH to the huge public.*

Date of Submission: 20-11-2021 Date of Acceptance: 04-12-2021

I. Introduction

Everything novel has origins in the past (Ore, 2019). UNESCO has seven conventions in the field of culture, the main focus is on the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage (UNESCO, 2003). Zimbabwe adopted the UNESCO 2003 convention on the 30th of May 2006 (UNESCO, Universal Periodic Review, 2011). There are a total of 193 member states and 11 associate members that have adopted and accepted the Intangible Cultural Heritage Convention, each with its own national commission (UNESCO, statesparties, 2019) .This paper focuses on revitalising, preserving and enhancing intergenerational transfer of the Intangible Cultural Heritage narrowing it down to three aspects which are representations, artifacts and instruments. Representations are figures or images that substitute reality, Artifacts are objects, ornaments of archaeological or historical interest, Instruments are referred to as a device used to produce music (Livio, 2019). These objects have fallen into oblivion and their existence and what they signify is important but unknown. This paper focuses on fulfilling one of the UNESCO objective of safeguarding, ensuring respect, raise awareness and providing assistance of the living heritage. We have five ICH domains, these domains are collections of information that are part of certain ICH elements (UNESCO, 2003). Representations fall under social practices, rituals and festive events domain which involves worship rites, birth, wedding and funeral rites, rites of passage, oaths of allegiance, traditional games and sports, kinship ceremonies, culinary traditions, seasonal ceremonies, practices specific to men, practices specific to women, hunting, fishing and gathering practices (UNESCO, 2003). ICH elements will be drawn from there, ICH elements are defined as a social, cultural practice or expression, a specific knowledge or skill defined by the community, groups and individuals concerned as part of their heritage (UNESCO, 2003). We can not only access information but also contribute to its conception using various computer tools (IEREK, 2019). Computer tools are virtually any program or utility that aids in the development and maintenance of computer applications and the computer itself (Livio, 2019). Animation and Digital games fall under computer graphics which are described as the representation and manipulation of pictorial data by a computer (Livio, 2019).

Developing animated interactive digital games using computer tools makes it easier to revitalise, preserve and enhance intergenerational transfer of vast knowledge involved with artifacts, representations and instruments. To develop is simply focusing on new creations, animation is about an object that possesses the quality, ability of motion. Interaction is an exchange between or among objects and events (Dictionary, 2019). A

computer is any electronic device that can process, store and retrieve large amounts of data very quickly for example smart phones, digital watches, tablets, laptops etc. (Dictionary, 2019). So this paper mainly focuses on the creation of an object that has the ability of motion that runs on a computer, follows certain rules, entertains, communicates and reaches a specific goal of revitalising, preserving and enhancing intergeneration transfer of vast knowledge involved with artifacts, representations and instruments. Digital games are most ideal for this project as they can be made interactive, that is interaction among gamers and the game itself. It is a form of entertainment media, so it removes boredom as one plays. For one to be able to achieve a game level, the gamer has to know the rules of the game and how to play therefore it leads to the gaining of the knowledge on artifacts, instruments and representations which in turn brings that knowledge back to reality.

Since technology plays a greater deal in our lives and there is a fundamental need to preserve our knowledge on instruments, artifacts and representations. Preserving it can be fully achieved by the introduction of computer tools into its existence. This project outlines the non-existence of computer tools for the creation of animated interactive digital games with implications on the intangible cultural heritage. The construction of 3-D content cannot be limited to the production of shapes and motions, it can also include compelling stories which can pass on our culture from generation to generation (Perlin, 2005). Shona language has been selected as the main media. The language covers over three quarters of the population of Zimbabwe and smaller groups in South Africa, Zambia and Mozambique. Shona has never been used in animated digital games on a broader cultural level. Computer tools offer possibilities of interpreting practices, knowledge and skills that represent different groups and communities in the chosen language of expression. This thinking could be either framed in terms of "linguistic rights" or taken simply as a practical observation that opportunities for expression and learning are favored by providing means to work with a powerful technology on one's first language (Szilas, 2014). The cognitive development of children is divided into four stages (Piaget, 1990). Based on these four stages, this research focuses on children aged 13 to 16 years whose cognitive features would facilitate traditional cultural knowledge through electronic game playing much easier than other age groups. This age group is suitable because they do a lot experiments and they are much into game playing and technology. Throughout this paper the term children means children aged from 13 to 16 years. A thorough research will be done in different kinds of High and Secondary schools from urban to rural in order to capture vast knowledge from all corners of the Zimbabwean Hurungwe District. A test will be done to see how the children relate to the digital games and to see if it excites them and achieve the stated goals.

II. Background

As the result of its peculiar history, the living heritage of Zimbabwe encompasses a mixture of different influences, lifestyle, traditions and traditional practices of the historical settlers and Zimbabwean communities living abroad and within. Among the Zimbabweans today, there still exist several ethnographic and ethnic groups. Ethnographic groups have members of different ethnic groups within a socioeconomic region. As Zimbabweans, they uphold both cultures, their own culture of origin and the national traditions, customs and rituals (Zimbabwe, 2018). The Zimbabwean culture highly values the family, its structure and the architectural handicrafts used for the houses. Today several authentic rural places are being preserved and used as natural storehouses of the Zimbabwean living heritage but they remain accessible to the public at large. Traditional costumes, folkloric instruments and different types of crafts and arts can be found there. Visitors can also drink traditional coffee, listen to folkloric music, watch performances and dances of folklore and buy legal copies of audio and audiovisual recordings thereof. These visitors, however, who are mainly users of folklore themselves, are also allowed to record any live performances and dances themselves without explicitly having to ask for permission and can distribute their recorded materials accordingly. The national flag and the Zimbabwean bird (African fish eagle) are the most symbolic representations of the nation. In the tourism sector the photographs of the Victoria Falls, Great Zimbabwe and wildlife are symbols of the national history and natural heritage. Zimbabwe itself is named after the Great Zimbabwe, the twelfth to fifteenth century stone-built capital of the Rozvi Shona dynasty.

Shona speaking people today dominate Zimbabwe. This cluster of closely related languages consists of a variety of regional dialects with current political and economic implications despite their being largely a colonial construct that is Kalanga, Manyika, Karanga, Zezuru and Korekore. The second largest group is the Ndebele who are based in the west of the country. Smaller groups include the Tonga of the Zambezi Valley, the Nambiya of Hwange, the Venda of Beitbridge and the Shangaan of Chiredzi. Of late these minority groups have become increasingly vocal, reasserting their individual identities as separate to the dominant Shona version (Retzlaff, 2016). The main concentration is on Mashonaland West Province focusing on one of its districts, Hurungwe District that is the largest district in the province. The district has done justice in terms of identification and its richness in terms of cultural roots which include language affiliation, symbolism, national identity, and support for the arts, literature, graphic and performance art. The Hurungwe district has a huge percentage of the Korekore decent who pride themselves of their culture. They have their beer festivals, the

Chinyamusasure dance and different types of remedial herbs. The Korekore people speak a Zimbabwean Shona dialect which is special to its people as it represents who they are and gives them identity. There are cartoon animations broadcasted in Shona but no digital games designed for the Shona communities. Writing in Shona has developed since 1930 (Chimhundu H. , 2005). As the Shona corpus is made up of 2 962 412 running words, collection words from all geographical regions of Zimbabwe where Shona is spoken (Mpofu, 2009). The digital game will be designed in the Shona language based on the Shona corpus words and the *Duramazwi Guru reChishona* (Chimhundu H. , Duramazwi Guru reChishona, 2001).

III. Research Core

Based on the observed facts of this project, the main objectives are to:

- Develop and test animated interactive digital games that keeps children engaged with their cultural elements in the Shona language.
- Revitalise and preserve the living heritage with games inspired by community customised cultural background.
- Enhance intergenerational transfer of vast knowledge involved with artifacts, representations and instruments.

IV. Related Work

This is a meta-analysis looking at different kinds of studies by the type of study and category as represented by the sections

On the UNESCO website, UNESCO explains the definition of "Intangible Cultural Heritage" which is the living heritage and the reasons why it is necessary to safeguard it. According to the 2003 convention the UNESCO (UNESCO, 2003), an effective way to safeguard Intangible Cultural Heritage sustainably is to guarantee that cultural heritage continues to be transmitted to younger generations. It also lists 90 masterpieces of the Oral and Intangible Heritage of Humanity in the world. Among them, there are few from Africa (UNESCO, 2003). The project focused mainly on intergenerational transfer, transmission of important cultural information from one group of elders to a younger generation. The transmission included languages, development and artifacts. Games have been around for thousands of years in the human history (Dempsey, et al., 1996). A survey made by Australian Bureau of Statistics identified that electronic games are one of the most popular choices in the array of leisure activities available to children aged between five and fourteen years of age (Australian Bureau of Statistics, 2006). Of relevance for this research was the claim by Game Studies, an International journal of computer game research, that games can be used as educational tool (Gamestudies.org, 2004). That claim has many supporters. Research by Greenfield indicated how children cognitive skills were affected by electronic games (Greenfield, 1984; Masendorf, 1993); (Shaffer, 2006), (Sandford, Ulicsack, Faser and Rudd, 2007), (Gibson, Aldrich and Prensky, 2007), (Gunter and Furnham, 1998), (Okolo, 1992), (Hostetter, 2012) all mentioned how computer games can aid learning. The games were interactive, they required feedback from the user and all of them were digital.

Various research efforts are focusing on strong computer tools use for digitization, archiving and preservation of intangible cultural heritage and performing-art content. I-Treasures is a project that had as a purpose to develop an open and extendable platform to provide access to Intangible Cultural Heritage resources. On that framework, the project had as a purpose to propose novel methodologies and new technological paradigms for the analysis and modelling of Intangible Cultural Heritage. The project focused on four different cases of Intangible Cultural Heritage a) Rare Traditional Songs, b) Rare Dance Interactions, c) Traditional Craftsmanship and d) Contemporary Music Composition (Adistambha*et al.*, 2012). In the I-Treasures project, the metadata schema for their platform used a combination of Dublin Core Metadata Element Set, I-Treasures Model, ESE -European Semantic Elements (Manitsaris, 2015).

Jean Piaget (1980) was one of the most distinguished researchers for his work studying developmental psychology and his theory of cognitive development during the 20th century. In his book Sociological Studies, the cognitive development of children is divided into four stages:

1. Sensorimotor stage: from birth to age two years.

At this stage, children experience the world through movement and senses and learn object permanence.

2. Preoperational stage: from ages between two and seven

At this stage, what children achieve is the acquisition of motor skills.

3. Concrete operational stage: from ages between seven and eleven

At this stage, children begin to think logically about concrete events.

4. Formal operational stage: after age of 11

At this stage, children begin to develop abstract reasoning (Piaget, 1995).

Salonius- Pasternak and Gelfond (2005) argue that culture is deeply affected by values and experiences coming from family, community, nation and other environmental factors. Dorr (1986) claims that when comparing children and adults, children are keener to learn and Strasburger and Wilson (2002) argue that children believe more easily than adults. In another study with Inhelder, Piaget concluded children's mental actions are reversible while their operational thinking develops (Inhelder and Piaget, 1958). Children begin to use multiple criteria for judging reality of mass media according to Hawkins (2000). With development, children gain abilities to draw the most important clues of the story in program (Collins, 1983) and are better able to derive different logical conclusions from verbally presented passages than younger children (Ackerman, 1988; Thompson and Mayers, 1985). Wright suggests children are better to handle programming that contains the information integrated with fast changes in time and place (Wright et al., 1984). All of these studies add further weight to Inhelder and Piaget's research which found that children are not only able to think rationally, logically and hypothetically but to draw inferences from specific instances and occurrences. All of the above give credibility to make children the target audience for this game design concept.

There are a large number of researchers arguing the long term effect of children playing electronic games. Positive assessments are given by Hartung (2002), who suggests that playing electronic games can improve children's literacy, thinking, reflecting and creativity. Digital animated games also set up a platform for children's communication where they create friendships as they share solutions and code with each other in a combined effort to beat the game/ computer according to Fromme (2003), and Beentjes (2001) found that games have become a part of children's lives and the most frequently used interactive media. Curiosity, fantasy, interaction, and challenge are probably the four top reasons people enjoy electronic games (Hostetter, 2002). Inevitably, some researchers claimed that digital interactive games also have negative influences on children. Gentile (2004), Kirsh (2003), Anderson and Bushman (2001) endorsed the view that playing violent games may lead children to the development of a hostile nature, which could lead to aggressive behavior. Another concern voiced by Harris (2001), Gunter and Furnham (1998) is about addiction which could lead to lack of interest in other areas of the child's life and can also lead to compulsive behavior, withdrawal, and irritability when children are not permitted to play the digital games. In addition, health problems such as overuse injuries of the hand, obesity, muscle and joint problems, eyestrain and photosensitive epileptic seizures (betterhealth.vic.gov.au, 2007, p.3) are related with electronic digital games by many researchers. Nonetheless, Griffiths (2002) researched the effects of playing electronic digital games, not only short- term effects, long-term effects, addiction, and health risks, but also positive potential, education and health care. He states that:

It is vital that we continue to develop the positive potential of electronic games while remaining aware of possible unintended negative effects when game content is not pro-social…. Game developers need support and encouragement to put in the additional effort necessary to develop interesting games that do not rely heavily on violent actions… (Griffith, 2002, p.47)

Electronic games have great positive potential. They can be used as a teaching approach in the learning environment (Arnseth, 2006; Fromme, 2003; Squire 2002; Jones, 1999; Blanton, et all., 1997) and can also be utilized to improve children's health care (Rodriguez, 2006; Ribillard, 2003). In Cultural Framing of Computer/ Video games, Squire (2002, p.1) presents from an educational technology perspective that "understanding and unpacking how learning occurs through game play, examining how game play can be used to support learning in formal learning environments, and designing games explicitly to support learning are three areas that educational research can contribute to game studies." Further, he argues that "educational discussions of transfer, practice, and social activity offer three promising ways for game studies to think about game playing as cultural practice." While edutainment games such as *SimCity* and *Civilisation* are intriguing educational materials, he claims that "the most promising developments in educational gaming might come through games that are explicitly designed to support learning" (Squire, 2002, p1).

In the article "Video games – The Necessity of Incorporating Video Games as part of Constructivist Learning", Hostetter (2002, p.1) dubs the new generation of children as the game generation:

This game generations used to twitch speed, parallel processing, and active, fantasy worlds. Games have changed the learners' cognitive skills so that the game generation can process a lot information at the same time. Video games are an excellent learning tool because the computer can adjust its difficulty according to the player's preference or need. Video games also teach deductive reasoning, memory strategies, and eye-hand coordination. The downside of using video games is that they can be addictive but with monitoring can be used effectively in the classroom. Working together with software companies, parents, and educators, video games can facilitate children learning the required content for their level as well as make learning fun and applicable to the game generation.

In November 1996 Computer Gaming World's Anniversary Edition, Civilisation created by Sid Meier for MicroProse in 1991 (Civilisation Fantastic's Center, 2000) was chosen as the number one of the 150 Best Games of all time (Civilisation, 2001). Many teachers and academics have realised that Civilisation has a better educational function than text books to avail students to gain the knowledge of history. "At the 2005 Games in Education Conference, Civilisation was one of the main examples identified for the educational use of games"

(Crabben, 2006, p.1, Whelchel 2007, p.2) discussed in "Using Civilisation Simulation Video games in the World History Classroom" why it is important to recognise that "Civilisation has a substantial impact on the layman's understanding of history…, it can be used to not only teach historical concepts but also instruct students how to critically evaluate and deconstruct historical representations found in popular culture." He claimed that "models of trade, technological diffusion, and cultural progress in Civilisation are well beyond other educational games, Further, Whelchel elaborated three potential projects that instructors could use with Civilisation in classroom. He explains that:

The first is Hands-on History, which centers on using these games as a primary tool in teaching historical concepts. The second is Pet Civilisation, which involves students taking on the role of one of the playable groups in the game and comparing their civilisation against the actual historical development of the policy in question. The third is Deconstruction Fun which involves students focusing on the deconstruction of civilisation builders as artifacts from their own culture (Whelchel, 2007, p.2).

V. Conclusion

The first study explains more on the living heritage and how intergenerational transfer can be achieved. The study was all done in the English language. The second study focuses on the games for educational purposes. This research was carried out in Australia and stated that most games are done in order for young individual to improve their cognitive skills and enjoy game as for leisure. The research mainly focused on children between five and fourteen. The third study focuses on various computer tools used for digitizing and archiving of cultural data, preserving the living heritage. On the living heritage the main focus was on rare dance interactions, traditional craftsmanship and contemporary music composition. The forth study focused on the four stages of children and what they experience. The fifth study defines where culture comes from and there is a pure comparison between adults and children and a clear picture on how fast children capture new things. The sixth study states the dangers involved in game plating like obesity, muscle and joint problems, eye stains and epileptic seizures. The research also focused on the advantages of game playing which is usually achieved by curiosity, fantasy, interaction and challenges. No violent games should be designed for children because of the effect they cause. Study seven focuses on the advantages of games as a teaching tool.

The above studies focuses more on the development, animation, interaction, digital games, computer tools, relevance, living heritage, media, languages and culture. The studies were explicitly done focusing on areas they were focusing on and archiving their certain goals. The studies left a lot of gaps such as none of the studies focused on Africa and mainly Zimbabwe. There are no animated interactive digital games mainly tailored for Zimbabwe to disseminate information on representations, artifacts and instruments in the Shona language. On languages, none of the digital games were designed in the African language and none of the digital games were customarily designed for a specific culture. Most the games were just designed randomly but cultures are different in every part of the country. Instruments, artifacts and representations were left barren without much focus on them. Dances and music compositions were included instead. The other studies did justice to the preservation of Intangible Cultural Heritage but did not give justice to visual, as visual also includes those who cannot hear. The visuals advantage is that it includes everyone including people living with disabilities. The rare dances mainly included European dances and excluded African platforms. The project did not include much of digital games which disseminates information on a wider spectrum. This paper focus more on the development on animated interactive digital game using computer tools in relevance to living heritage with Shona as a vehicle focusing on children in Zimbabwe. This project lives a gap of children below the age of thirteen and adults above the age of sixteen, this is a gap for further research.

VI. Methods of collecting data

This research will involve planning (identifying, investigating and analysing the problem, hypothetic solution and data collection and thorough analysis), acting (surveying Zimbabwean children regarding this design concept and implementing findings), observing (collect evidences through literature reviews, organizing and analysis of data) and reflecting (access outcomes, re-planning). The stages involved will be assess acceptability of game prototype, determine effectiveness of the game prototype, review perception if the users, develop the digital game prototype and testing. The researcher will use an action research methodology for this research project that will involve workshops, seminars, interviews, questionnaires, software experiments and materials Hitchcock and Hughes (1989, p.6) defines action research as "an inquiry conducted into a particular issue of current concern, usually undertaken by those directly involved with the aim of implementing a change in a specific situation". "Action research is more concerned with the immediate application rather than the development of theory. It focuses on a specific problem in a particular setting. In other words, its findings are usually judged in terms of their applicability in a specific situation" (Verma and Mallick, 1999, p.12). For credible results to be derived both rural and urban children from different secondary schools will be involved.

The secondary schools will be from Hurungwe District in Zimbabwe. Different type of age groups will be involved, the games will be administered to each age group level and observed.

VII. Discussion and Findings

While keeping the economy emerging with Zimbabwe's own roots elevates the country itself. Upbringing of different generations knowing where they came from and knowing where they are going is of attar most importance. Culture keeps individuals grounded with their morals intact and their values more significant (Mueller, 2008). Even when they travel to other parts of the world they are recognised by their cultural attributes but in Zimbabwe that culture is losing its value as phase is moving. If that culture is lost from an individual, they will not have a sense of belonging and their morale contact will have disrupted (Glassner, 2004). It is of importance to have cultural attributes handed over from one generation to the next. Music, dances, morals, traditions, languages and events are all part of culture which makes us who we are and which brands us or be recognise as Zimbabweans.

Zimbabwean people cherish their historical years grace and profundity of traditional culture, nonetheless, much of Zimbabwean intangible traditional culture has been largely unnoticed by the Zimbabwean population and now remains in books or document form only. Cultural instruments, artifacts and representations knowledge has been lost. A virtuous job of protecting and preserving tangible cultural heritage has remained done but not much has been done for intangible cultural heritage (Wu, 2004). Many traditions and folk customs are dying out faster than before due to pace of economic construction (Zhao, 2004, p.2). Important artifacts like the Zimbabwean bird or even the African harp, drums and trumpets have fallen into oblivion. Zimbabwe itself has a diluted culture which the youth of today are enlightened to. Zimbabweans have borrowed the Carnival celebrations, Mothers' Day, Fathers' Day and the Valentine commemorations which are not part of our original culture. The people do not know what belongs to us and what has been borrowed. While Heroes day, Independence Day and other Zimbabwean festivals are designated as statutory holidays and the celebrations have faded over the years. Young people like to indulge their passion for foreign holidays. Most Zimbabweans do not have any religious connotation for Christmas but they celebrate it as a big holiday just the same.

When movies are played that portray traditional customs, lacking relevant knowledge of traditional stories, audiences especially the children barely understand the stories, dialog and plot of plays (Levine, 2004). On another note the graphics do not attest as appealing as the fast paced action of movies and television. The children's desire is for practices of contemporary life and not ancient tales. The artifacts and instruments exist but their knowledge and what they represent is not being passed on mainly because the ways of disseminating knowledge is not interesting todays' generation. Children are too occupied with technology and superficial accomplishments. The elders do not spent time with the younger generation anymore as what used to happen in the years back, even opportunities of storytelling old fork tales is in none existence. Whenever documentaries are being shown it is either they do not have enough coverage of vital facts, most documentaries are diluted with foreign content or the documentaries are too boring that the children end up changing the television channels. The children do not have that which can engage their interest.

Zimbabwean people have been eagerly adapting to international norms and practices without the slightest idea that the traditional intangible culture is in danger of losing its substance. Most individuals cannot recite the Chimurenga war or dance traditional dances which entail their tribe. The spoken languages have been overly distorted, what is left in the languages are idioms and quotations that is the odd remnants of traditional classic. Also, many stories have been modified for the purpose of poking fun of historical figures (Cai, 2004). There are no animated interactive digital games mainly tailored for Zimbabwe to disseminate information on representations, artifacts and instruments in the Shona language.

When knowledge is being passed on from generation to generation it has to be authentic in light of its strong connection with the heritage identity of its creators and bearers which is the country, Zimbabwe. In consideration of the fact that culture is a living and changeable entity, a self-identification and constant regeneration is an obligation. When a Zimbabwean individual visits other countries, because of too much dilution, the individual cannot be recognised as Zimbabwean from their language and what they represent. Intangible Cultural Heritage which is narrowed down to representations, artifacts and instruments allows persistence to recreate itself in order to constantly reflect the cultural identity of its country. The Zimbabwean population has to be able to design their own instruments, using the exact tree stamps that should make those instruments, they should know what color depicts what and what represents what, and they should be able to recognise the most priced artifacts and its history. At the moment, most Zimbabweans are not interested especially the children but the knowledge is of great importance. The children do not have the tools that enable them to know about their heritage, exciting tools that keeps them engaged with their own original community culture elements in their mothers' tongue. Most of the games they play are not from their cultural background. Nothing had been designed yet to accommodate their own background, the ICT people from their own background are responsible for that. Language makes the heritage move from one generation to the next, the

language is there but not carrying anything of value to pass on. There is a great need for customised games that keeps the children captivated, keep the elements alive and pass them on. So there is ample evidence to validate that electronic games can be useful education tool and thus suitable to transfer living heritage knowledge. In this project, the researcher proposes to design an interactive animated digital game to teach children (13-16 years old) about Zimbabwe and its beautiful culture.

VIII. Conclusion and Recommendations

Playing and learning under socio-social circumstance, it is a route for directing students gain proficiency with their own way of life in normally, animate their excitement and upgrade their innovative capacity. From future-situated viewpoint, ICH can become country youngsters' instructive assets just as a piece of socio-social settings in instructive games. This study investigated another type of ICH instructive game, which related social components in ICH and adapting needs for rustic youngsters both in social acquiring and expanded abilities work out. At the point when plan educational games, learning style, culture, game classifications and learning substance ought to be thought about comprehensively and connectedly under genuine socio-social circumstance and learning circumstance. Discovering the connection between them will empower us to foster instructive games that incorporate social significance and critical thinking abilities. Youngsters are unique students and players. In opposition to the helpless learning circumstance on school educational program, they have noteworthy eagerness and potential on advanced game-based learning. Their learning styles can be characterized into activists, reflectors, negatives and performers, and each style has distinctive learning issues and should be considered in plan measure. In a word, planning all the more free creation spaces, coordinated effort openings, fitting difficulties, open game systems and intelligent thinking time are vital strategies for improving their commitment and learning results.

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Fungai Jacqueline Kiwa, et. al. "Developing an Animated Interactive Digital Game Using Computer Tools In Relevance To Intangible Cultural Heritage With Shona As A Vehicle." *IOSR Journal of Computer Engineering (IOSR-JCE)*, 23(6), 2021, pp. 45-52.