Reading gamefully: videogamification as multimodal pedagogy for high school setworks

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ABSTRACT

This paper draws from multiple publications in the Literacy Studies, Game Studies and Multimodal fields to foreground the affordances of using modern video game aesthetics – particularly their user interfaces or screens – as learning scaffolds in the under-resourced English classroom context. Though this may be seen as a well-worn terrain for research today (nearly 30 years after the advent of Game Studies), it is argued that video games remain somewhat underrepresented in literacy education, with the Covid-19 pandemic and recurrent lockdowns even further cementing games technologies from learners' home domains as the new frontier in teaching and learning. The benefits of importing such technologies into the classroom is nothing new to the field. Yet, this study innovates by optimising the most accessible of graphological media (pencils, pens, paints and paper) during participants' transmodalisations of prescribed English literature – particularly Shakespeare's plays – into a range of video game screenshots, including character menus, maps, and heads-up-displays. The research site is a public high school in Johannesburg, South Africa, with five Grade 10-12 learners drawing the screenshots in response to an extracurricular, multimodal enrichment programme. The author contends that this programme (or similar pedagogies) may encourage future groups to delve further into the complexities of their school setworks, which may then be connected meaningfully to their own, increasingly digital life-worlds. Recognising game-making as an extraordinarily complex undertaking, the researcher then offers a fine-grained analysis of each participant's text-to-game re-genrefication. In this way, the powerful representational properties of the video game medium can come to light, reaffirming its importance as a semiotic resource and pedagogic tool.

Keywords: Multimodality, re-genrefication, prescribed literature, video games, digital literacy, drawing.

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Introduction

The video game industry generates a revenue of over 120 billion dollars per year, with sales of software and hardware still on the rise (Takahashi 2020). In South Africa, it is predicted that one out of every five teenagers will own at least one video games console by 2025, excluding those playing on their smartphones and other mobile devices. Despite this glaring evidence of video games as 'powerful teachers' in young people's lives (Prot *et al*. 2013:366), there is a danger that school curricula – and in particular, the current resources used in language classrooms – are not adequately reflecting this shift towards more 'digitised' forms of text interaction, or 'computer screen reading' activities in general (Mangen 2018:1). While the latter author draws some valid conclusions about digital technologies marginalising the paper-based modes (and even handwriting) in schools, it is not implied that the affordances of one mode should supplant another when we read, write, or communicate, in an educational context or otherwise. Instead, there seems to be a call for more technologically integrative pedagogies across grade and subject spectra (Griffiths 2002; Gee 2003; Titus & Ng'ambi 2014; Beavis & O'Mara 2016). While the cognitive benefits of analogue or paper-based literacy activities should not be ignored, more ways of using digital and analogue modes concurrently (and meaningfully) must be investigated.

This paper, as an abstract of a multimodal enrichment programme conducted in an under-resourced high school in the south of Johannesburg, seeks to answer this call and contribute to the Game Studies oeuvre. It presents the multimodal features of video game screens (such as character menus, in-game maps, and heads-up displays) as powerful platforms for the teaching and learning of prescribed plays in the South African state school context. It is argued that the remaking of certain aspects of a play into various video game phenomena – for example, the dramatis personae into the "character select screen" found in many fighting games – may encourage learners to delve further into the literary complexities of their setworks, and to connect these meaningfully to their own, increasingly digital life-worlds. Inspired by Mark Griffiths (2002), James Paul Gee (2003) and other proponents of the video game as an artform, artefactual data is gathered from a high school in Johannesburg, mainly in the form of learners' text-to-game transmodalisations. However, since this process involves a traversal between such seemingly disparate genres – the paper-based play and the screen-based video game – the artefacts are viewed as complex re-genrefications of prescribed material. The many contextual, thematic, and modal parallels, drawn here between the prescribed and remade works, also confirm how well the genre can open up canonical texts for all

participants. It follows that video games technologies (as they occur in South Africa and abroad) are an excellent springboard for creative redesign and the development of critical thinking skills, and with the education landscape forever changed by Covid-19, they may prove more relevant than ever as a semiotic resource across the curriculum.

Immediately following my research rationale (below) is a conceptual framework focussing mainly on the growing prominence of games in children's lives – not only in classrooms, but also outside of formal education settings. The article then moves to more microcosmic territories: the actual site where the research was conducted. This is to demonstrate exactly what could be achieved through *videogamification*[1] practices, especially those that cross glaring gaps between the play, novel, and video game genres. In the findings section following this, I reiterate the many uses of video games in literature learning, specifically, and argue that they are much more than an alternative to print-based modes employed in de facto classrooms (Knobel & Lankshear 2007; Nero 2014). Though they are obviously different in their materiality, paper-based literary works and video games seem almost symbiotic in the way they complement one another in their pedagogic applications. Both genres draw heavily from narratives, and narratives are arguably the most rudimentary microgenre that has been practised by humankind – as early as pre-historic times with their mostly oral narratology (Frasca 1999,2003).

Research Aims and Questions

This paper offers a synopsis of a larger PhD study, conducted in 2019. For added focus and relevance to the changing digital profiles of classrooms nationwide – with their envisioned use of interactive whiteboards, smartphones, and many other input devices (Department of Education 2012) – it focuses on only one of three genres explored in the full study: video games. The other two, music and film, were used as scaffolds to teach and learn prescribed novels and poems in two other schools, respectively. Henceforth, then, the focus will be on five high school learners and their remaking of prescribed plays into a range of video game screenshots. Only one learner from the group opted to take on a novel, Sindiwe Magona's *Mother to Mother* (1998), as source material for redesign.

For this study, three research questions were formulated to offer a tripartite focus on participants' (a) products, (b) processes and (c) implications for pedagogy. They are of equal relevance here. In the interests of facilitating a fine-grained analysis of each artefact, the questions were formulated as follows:

1. How do high school learners re-semiotise, re-genre and re-make prescribed canonical English literary texts into scaffolding texts in the form of songs, storyboards and video games?

2. What is the process required in such re-makings, that is, what chain of meaning-making did participants follow?

3. What are the implications of these redesigns for classroom practice, that is, how can participants' products and processes be translated into a viable multimodal pedagogy?

The following rationale – though centred on the reasons why I had undertaken the research initially – further argues for the application of similar pedagogies in future classrooms, on a wider scale. Moreover, these arguments and others pertaining directly to my research questions will be substantiated with the aid of participants' artefacts, as presented in the data section below.

Rationale

The affordances of the audio-visual resource in facilitating language learning, observed particularly as a television monitor or other projected screen in the classroom, have enjoyed much discursive space in linguistic research, from the seminal works of the New London Group (1996; Cope & Kalantzis 2000,2009) to more recent entries in the embodied literacies oeuvre (Gee 2015; Larson & Marsh 2015; Yamada-Rice 2015; Tomlinson 2015; Simon *et al*. 2016; Batchelor 2018,2019). Yet, the occurrences of such resources – that is, their overall presence as pedagogical tools, as well as the intrinsic modal-compositional aspects of the images they so keenly display – are often compartmentalised into digital technologies or one of the visual modes. These, I believe, are categorisations which fail to capture the multiplicities of modes and meanings within each image, or visual text. Though they are treated as a genre due to the distinctly participative role of their players or viewers, video games also seem to be pigeonholed in this way, or as Fiona English (2011:77) puts it, classed as '[a] kind of text…belonging to a particular type' and meeting certain 'expectations' through its very 'identity'. Instead, video games are a great example of the mode at play. Whether it is the relatively static character select screen or the more dynamic in-game screen that is viewed by the audience or player, there is nearly always a multi-layered arrangement or orchestration at any one time on the monitor – snapshots in time and space which in themselves may be regarded as multi-layered semiotic assemblages (Newfield 2014). It follows that video games are hard to define as a

singular genre, as what one sees on the screen constantly changes in relation to audience, the interest of the game makers, the purpose of the game, as well as the layeredness of its semiotic content.

This recalls Griffiths (2002:47), whose influential paper 'The Educational Benefits of Videogames' highlights that even the most banal of titles have '…great positive potential in addition to their entertainment value…there has been considerable success when games are designed to address a specific problem or to teach a certain skill'. Nearly two decades later, though, we have only just begun to tap into this genre as a central semiotic resource, or the impetus behind deeper and more engaged readings. Now, more than ever, video games can help to unpack the contents of long-standing monomodal texts for millennial learners around the world, provided that they supplement existing curricula in an impactful but non-intrusive way. In my own experience, they are also effective for addressing learner apathy – or adolescents' reluctance to interact fully with their setworks – in the higher and school-leaving grades. Many prescribed genres, especially longer types of narratives, tend to intimidate or alienate learners from literature-based activities intended for exam preparation (Jenks 2016). In the case of a novel, for instance, the largely monomodal composition and book materiality may dishearten more digitally or visually inclined learner groups. To add to this, not all teachers prefer or can afford the use of audio-visual technologies in the classroom (Serbessa 2006; Rolling 2018). Yet the so-called cover-to-cover reading of literary texts, especially over several school terms, has been known to be extremely tedious for learners of all ages (Langer 1994; Ford 2016). This remains a litigious matter within the New Literacy Studies (Street 1993; Gee 1992,2003,2015; Brandt *et al*. 2002; Pahl *et al.* 2011), Multiliteracies (Cope & Kalantzis 2000,2009) and Multimodal (Stein 2003,2008; Jewitt 2003,2009; Newfield 2006,2014) schools.

To move into broader social spheres, the last decade has also seen a resurgence of highly publicised games conventions, contests, and pre-release press conferences – on a scale comparable only to the global Nintendo craze of the 1980s (McGill 1988). With *The Wizard* (1989), film director Todd Holland captured the exhilaration of the first video game contests (held mainly in North American and Japanese arcades at the time) as scores of young spectators, their parents, and all manner of games aficionados saw *Mario 3* (1988) or *Contra* (1987) as their only avenue into competitive play and rich, intellectual discourse. In today's heavily licensed E-Sports championships, though, winning teams can be awarded cash prizes of up to eight figures, not to mention sponsorship deals previously reserved for basketball players or the stars of more traditional sports. Perhaps due to their accessibility and aesthetic appeal, games known as MOBAs (multiplayer online battle arenas) or

battle royale-type shooters feature most prominently in the televised variant of such contests. With ESPN-style commentary and thousands of fans filling stadiums to watch the action live, these texts have now pervaded learners' interactions in class, the school grounds, as well as the out-of-school literacy domains. South Africa has also joined the guild, with the 2020 Umzansi E-Sports League – the first of its kind to be produced and televised locally – keeping learners hooked to their screens as professionals battle it out in *Tekken 7* (2017), *Fortnite* (2017) or *PlayerUnknown's Battlegrounds* (2016).

In an extensive psychological study conducted by Iowa State University, Prot et al. (2013:366) add:

> …media use [particularly video games] can lead to long-term increases in trait empathy and helping. Furthermore, these relationships [may be] generalized across gender, age, and culture. These findings under-score the fact that media are powerful teachers. Just as exposure to violent media can lead to negative outcomes such as desensitization and increased aggression, use of prosocial media can lead to positive changes such as increased empathy and helping.

This current prominence of the video game as a form of social commentary, or complex polymode reflecting our socio-cultural zeitgeist, perhaps provided the impetus for my own research at this school. Technology can no longer be seen as distant or separate from the primarily linguistic (or monomodal) resources that still inform the teaching and learning of prescribed narratives. As Anne Mangen (2018:2), Professor in the Reading Centre of the University of Stavanger asserts, digital tools or substrates may be applied quite liberally in literacy learning, provided that they do not supplant or 'marginalise' their paper-based counterparts in any way. An integrated digital-analogue approach may thus grant learners access to new meanings in ways that are more engaging, sensorially varied or reflective of a techno-cultural world. In this quagmire of images, sounds and other modes essentially non-linguistic, it is also ironic that books have often relied upon their video game conversions, cinematic adaptations, and other, more digitised forms to assert themselves in media ecologies.

Multimodal scholar Diane Mavers (cited by MODE 2020) observes that the critical viewer of literary texts is by implication a re-designer of those texts, whether they appear in a traditional book materiality or any multimodal derivative thereof. He or she, in whatever capacity or however unwittingly, mentally reconfigures the text before physically remaking its meanings into new genres or forms. Such forms are perhaps more befitting of a particular, digitally native viewership (Prensky 2001,2010), or a world that seems to generate a 'ceaseless flow' of information on platforms

like Facebook, Twitter and Instagram (McNaughton-Cassill 2017:[Sp]). We see, for example, online film reviews with extensive input from bloggers and other contributors to exhaustive, thread-like discussions – in many ways expanding the source text with scores of audio-visual clips, animations, screenshots, memes and interactive elements like puzzles or mini-games. This is pro-active and agentive re-design in its purest form, and in many cases, an opportunity for the multimodal revival of literary texts which may have been long forgotten, had they kept to their comparatively monomodal forms. Key to this rationale, or perhaps the main reason why I had embarked on this journey, was to offer learners *a way into* their prescribed narratives. Through the very process of videogamification, I found, they could broaden their horizons, optimise their sites of display or – if willing – channel their ideas to a much larger and more contemporary audience.

What is new about this study?

While it may be argued that the embodiment of learners' readings into visual or multimodal artefacts is a well-worn terrain for research, this study offers something new in that it places the participant at the centre of text redesign, and in direct contact with all graphological tools, media and source texts during each stage of the journey. They are using their hands, the familiar resources usually available to them in the classroom, and the relatively accessible stationery of pencils, pens and paints in the creation of completely unique reifications of canonical literature. Old-fashioned as this may seem, this methodology does not depart so much from the Game Studies paradigm as it compliments it in a way that is practical, viable and understanding of the under-resourced spaces that most learners – both locally and abroad – have come to expect from their time in state schools (Shrivastava & Shrivastava 2014).

What exactly is it about video games that had inspired this approach?

It is primarily the narrative potential of video games that is being utilised here, as opposed to the mimicry of video game mechanics or the unseen programming behind them. According to games journalist Riordan Zentler of Spokesman Review (2021:[Sp]), '…video games can tell stories like no other medium can' as they now succeed '…in telling captivating stories, but fail in making their oft-advertised lifepath choices meaningful'. Still, game making is an extraordinarily complex endeavour that involves not only storytelling, but thousands of hours of input from programmers and artists. It is true that the scope and aims of this particular intervention programme

could only touch the surface of such an undertaking. Yet, from the very agency behind my participants' redesign trajectories – from their first selection of scenes, chapters or events from their favourite setworks to the completion of the final works – it soon became clear that even though this may have been the tip of the proverbial iceberg, it introduced them to a wealth of possibilities for creative self-expression. Detractors may further argue that each completed artefact represents too little – content-wise – of the text which it had drawn from, but to cover all areas of a chosen text was not the point of the project to begin with. It allowed participants, if only for a brief period, to home in on their most beloved characters, scenes, dramatic climaxes, settings and epochs across the canon, and to translate these through media with which they felt comfortable, and which they have come to know and trust as Visual Art students.

Research Method

The research design can be described as situated within an empirical paradigm, with qualitative data generated from several visits to the five participants involved. Specifically using the ethnographic techniques of interviews, field-notes, artefact collections and case studies (Larson *et al.* 2015:12), participants were observed as they remade their prescribed texts on-site – in this case, the grounds of a high school in Johannesburg. Observations were not made within the language classroom, but at makeshift redesign stations at various spots on the school grounds. The project thus transpired as an extracurricular multimodal intervention, applied outside of class time and bi-weekly over a three-month period. The purpose of my visits (which could either take the form of a briefing, workshop or interview) was to gauge multicultural learners' interest in a scaffolded redesign task of this kind – specifically, the remaking of a prescribed typewritten narrative into a paper-based video game still. With such 'thick, rich descriptions' (Geertz 1973 cited by Scott & Morrison 2006:89) emerging mainly from my artefactual analyses, I could then outline how an intertextual, inter-genre approach could open up literature to children in ways that more monomodal practices – or perish the thought, cover-to-cover readings – could not.

Motivating the five-member sample as a feature of my research design

Another critique which may be directed towards my design is that the sample of five participants may not adequately represent a larger student demographic, or larger learner group, within state school contexts. I will, however, defend that smaller

focus groups allow for a much deeper engagement in the project from all stakeholders, affording one increased opportunities to delve into the complexities with which learners select their redesign materials, their texts, as well as the unique ways in which they choose to embody their readings or interpretations of prescribed material. One finds that the data analyses below are quite deep and detailed in their description of the participants' selection and use of semiotic resources during each stage of the project. The sample size of five is thus not only strategic for the sake of an effective research model on-site, but sufficient for an in-depth, qualitative study of this kind. It is true that learners will always be different and that their approach to such a pedagogy might very well change in the near future, but what we can take from an observation of these individuals is that games – specifically digital ones – have a very important currency and relevance in the lives of adolescents today, not only in home contexts but as an inevitable phenomenon to be imported into all subjects and learning experiences across the curriculum.

Why not use game creation software?

Already from the conception stages of this enrichment programme, I knew that my sample would have to employ relatively traditional media in the completion of their artefacts. I did not wish for an intermediary text, such as a game design application or program, to impinge upon the outcome of participants' creative thoughts, actions or movements in the designated redesign space, or worse still, dictating the aesthetic outcome of their work. If one had used an existing game design interface – *GameMaker Studio* (YoYo 2007) to name one – it would oppose the aims of the project entirely. Though video game aesthetics served here as scaffold for the modal composition of learners' final works, it was not their intention (nor mine) to create playable, digitised games with the prescribed texts serving as mere contextual springboard. If the latter had transpired, though, the pedagogy would present a filter or potentially distracting medium between what was *read* – that is, the school setworks – and later *remade* – that is, learners' multimodal orchestrations in the form of contemporary video game screens. Raw data spawned from the creative minds of real, individual agents, and could be embodied directly on paper through familiar (and affordable) graphological media. What is seen here is thus more aligned with the work of Ya-lan Yang (2009), Arsa Widitiarsa (2018) and Sarah Crowther (2019), as they had employed similar approaches to videogamification that are decidedly removed from coding practices or digital redesign trajectories.

Conceptual Framework

The body of literature which had informed my methods (expressly my overall approach to data collection and analysis, on-site) is arranged into two main lines of inquiry. Firstly, the affordances of video games for learning are situated within the broader, Literary Studies and Multimodal fields, as this allows one to gauge what future learners might take from a project of this kind – in other words, what it could add to their reading, writing, listening and redesign skills repertoire in an educational setting. I then focus briefly on Game Studies – particularly the most resilient arguments and trends within it – to determine how the project fits within the arena, or differs from it.

Inquiry 1: Video games as useful scaffolds to improve literacy

Video games, in either console or PC format, are not new to Literacy Studies and Multimodality. Already in 2002, Griffiths' seminal paper 'The Educational Benefits of Video Games' outlined the many uses of games in comprehensive school programmes, to help develop social skills in children and adolescents with severe developmental problems like autism. Moreover, Griffiths (2002:48) positioned the video game as a highly effective, facilitatory educational aid, with its 'visual patterns, speed and storyline' proving central to the development of linguistic, basic reading and social skills among children – particularly those with 'serious deficiencies in language and understanding, and social and emotional difficulties'. In 'What Video Games Have to Teach Us About Learning and Literacy', Gee (2003) also argues for the integration of common video game practices and design features into the classroom. Here, 36 learning principles that are present in – but not exclusive to – the design of good video games are identified. These are then applied to a progressive multimodal pedagogy which decreases learners' frustration as observed by the author in academic settings, and to develop a spectrum of skills including text production, risk-taking, lateral thinking, and teamwork. For over 20 years prior to these studies, however, video games have been used to research individual differences in spatial visualisation ability, memory, attention, self-esteem, goal-setting and other aspects not necessarily tied to the educational domain (Griffiths 2002:48-49). For the remainder of this section, though, I shift to some more recent studies in the video game-cum-multimodal repertoire. I now outline methods and findings with particular currency in the field, commenting throughout on how my own research may be positioned therein through its theoretical and practical contributions.

From a critical review of studies investigating the educational affordances of video games – specifically as scaffolds for the linguistic, visual, spatial and gestural

literacies (Beavis & O' Mara 2016; Burwell 2017; Bacalja 2018) – it emerges that the genre has now pervaded many aspects of learners' traditionally paper-based text interactions in classrooms. Most significant here are educators' and researchers' innovative approaches to teaching key concepts and skills across the curriculum, employing popular titles like *Bully* (2006) and *The Last of Us* (2013) as complex discursive platforms. While participants' responses to each intervention appear limited to the linguistic modes of interviews, written work, or online commentary, the video game is nonetheless central in their conversations around identity, power, aesthetics, reader-text relations, semiotic systems, or just the ways in which people construct new meanings while playing. This has been observed in Australia especially, with one project 'Literacy in the Digital World of the Twenty-First Century: Learning from Computer Games' (Beavis *et al.* 2009) still being cited to help elevate the digital game from its perceived entertainment utilities to an impactful resource in schools. Alexander Bacalja (2018:155), however, notes that games 'have not found their way into mainstream classrooms' despite being ranked as 'the third most popular [medium in Australian households], behind television and movies, and ahead of books'. This argument is also echoed in my own rationale for importing video game phenomena into learners' engagements with prescribed narratives, specifically. This cannot be a panacea in South Africa yet, as there are still huge socio-economic disparities between low- and high-income families, and parents who simply cannot afford to buy their children the devices granting access to games or online interactivity (Shrivastava *et al*. 2014).

Another concept referenced quite frequently in the oeuvre is that of "gaming paratexts". This term was first coined by game theorist Mia Consalvo in 2007, to describe the texts and practices that surround digital games, such as reviews, online forums, FAQs and fan art. Again, this current positioning of the game as a far-reaching and pervasive text-type – simultaneously drawing from and inspiring a range of everyday forms – was integral to my own, inter-genre project in both its methodological and theoretical foci. Tim Marsh (2011:61) adds that, if scholarship intends to move beyond the 'generally accepted characteristics' of games or their uses for 'challenge, play and fun', it will be necessary to distinguish between their impact in such media spheres – particularly their increasing popularity in experiential environments like schools – and their more immediate function of 'providing experience and emotion…to convey meaning'. The former, more serious impacts of video games have also encouraged authors like Marsh to position them as such – "serious games" – and to transform fragmented research communities into a cohesive unit, with a common interest in discovery and development. As Yasmin Kafai and Quinn Burke (2016:313) observe, this movement has over the last decade

spawned a number of studies scrutinising – in more particular detail – the educational potentials of video game playing. Still, they argue that one crucial element has traditionally been left out of these discussions: 'children's learning through making their own games'. The majority of studies that do incorporate this, the authors find, focus more on teaching coding or "computational thinking skills" (Weintrop, Holbert, Horn & Wilensky 2016), and less on the roles of collaboration and identity in the game design process. While their article provides a review of 55 studies – from the United States to Europe and Australia – instead of actual artefactual data to support this, it is a constructionist view that lends itself to much richer accounts of how learners experience their life-worlds, with video games and other everyday texts as prime representational resources.

> Every educator must have felt some envy watching children playing video games. If only that energy could be mobilised in the service of learning something that the educator values… The Constructionist mind is revealed when the wish leads to imagining children making the games instead of just playing them. Rather than wanting games to instruct children, they yearn to see children construct games (Papert 1995:ii).

Harking back to Jean Piaget's (1951) work, the constructionist ideals of making knowledge one's own, representing one's identity through the artefact or simply learning from a personal perspective, are now pervading studies of this ilk, albeit at a slow and steady pace (Walsh & Apperley 2009; Kafai *et al*. 2016). These ideals were pursued in my own research as well, since the inter-genre approach allowed participants not only to express themselves through game-play, but game-making. While it may be argued that my participants never designed actual, playable games, they still designed artefacts that drew heavily from the visual display modes of the video game genre. This brings us to two more salient concepts in the field – "metagaming" and "gaming capital" – which I will now discuss briefly in relation to my own work, before moving on to local territories and outlining how games are being applied in South African classrooms.

The concepts of metagaming (Gee 2003; Kafai *et al.* 2016) and gaming capital (Walsh *et al.* 2009) are congruent in their theoretical underpinnings, and relate to the inter-genre project on several levels. The former refers to game-play that 'extends beyond the game and includes participating in online discussion forums, and even accessing and designing cheat sites to help players more effectively navigate the game' (Kafai *et al*. 2016:314). Essentially, it is what happens outside the diegetic game-world; those player interactions and productions elicited by a particular game, which may then become public entities in the sense of them leaving the school or home domains. This seems to recall Consalvo's "paratexts" (2007) but differs in

that it challenges persistent assumptions about video games – and their various multimodal derivatives – as belonging to an isolated body of texts, narratives or practices. As Gee (2003:17) had observed nearly two decades ago, video games resonate much further through media ecologies – influencing what we see, hear, and do in an increasingly digital world. It is true that, with the inter-genre project, participants were never expected to expand their artefacts in this way. It nonetheless allowed them to rethink the role of video games in literacy (specifically literature) education, as there were many aspects of game-making that afforded a deeper and richer concept of prescribed, canonical texts.

By viewing, playing, or making a video game (or on a more granular level, its familiar screens, interfaces or multimodal features), personal knowledge may thus become public and be shared with others. In their discussion on gaming capital, Walsh *et al*. (2009:10) reiterate the importance of this process:

> We believe the significance of video games for literacy education is not simply about teaching youth how to 'read' the video game text, but to be able to critically understand and situate their game-playing practices in a field of knowledge which can move outside the media ecology of video games, into other tangible forms of literacy practices.

The video game, then, is viewed as a text-type of distinction in global youth culture – potentially affording one "cultural capital" in the sense of it expanding one's knowledge, skills, discursive and material resources as one moves across a life trajectory. Drawing from Pierre Bourdieu's (1984) work, where the cultural, economic, social and symbolic forms of capital were first conceptualised, the authors propose "gaming capital" as another form with strong ties to other disciplines, types of entertainment, learning and mass media. Most significantly, the domain that is deemed most suitable – or relevant right now – for acquiring this capital is that of literacy education, yet this will need to involve 'the exploration of risk, possibility, identity and subjectivity…and extend beyond [traditional] reading, writing and visual culture' (Walsh *et al*. 2009:2). It is here where I find a particular affinity with my own research aims and methods, as I have always encouraged my participants to forego the accepted uses of literacy, text, reading and other tropes within this domain. My participants, in essence, drew inspiration from extant literature to make their own video game screenshots (albeit on paper, or through mainly graphological means) and in turn may have acquired a palette of skills in literacy – which Vicki Carrington and Allan Luke (1997) happen to view as capital in itself. Also of relevance here – particularly to economic capital – is the rapid growth of the E-Sports scene. Willis Walker of the GINX Network (2020) contends that this is an indication of the video game's growing prominence – not only in the home and school space, but

in some of the largest sports arenas worldwide. For many professional gamers (now recognised as "athletes"), participation in such events is no longer a hobby but a career of limitless potential. In Finland, for example, E-Sports champions are regarded as major contributors to the economy, with some being awarded plots of land and lucrative sponsorship deals.

Still, this may not be relevant to school-leavers in South Africa – where the inter-genre project found its research sites – as E-Sports is not nearly as prominent locally and an economic recession is imminent following the Coronavirus lockdowns. Long before the pandemic, though, several local studies (Scott, Yeld & Hendry 2007; Amory cited by Erasmus 2008; Rowe, Frantz & Bozalek 2012) have positioned not only video games but also animated television series like *Naruto* (Kishimoto 2002-2007) as central to children's after-school routines. Such engagements with the apparently school-removed text, Alan Amory of the University of Johannesburg asserts, form an integral part of children's literacy identities – how they read the world and situate themselves therein. 'Games', Amory stated at the Shuttleworth Foundation's Games and Learning Indaba back in 2008, 'are useful social construction tools, and any game has an inherent educational value that is there to be exploited'. This is echoed by a conference paper from the University of Cape Town (Titus & Ng'ambi 2014), following an investigation into the benefits of 'a gaming innovation…to enhance student engagement' at an undisclosed tertiary institution. A key finding here is that the 'marginal popularity of games-based learning in South Africa' needs to be addressed urgently, as most students are 'pre-disposed to play games outside formal educational settings' (Titus *et al.* 2014:742). It follows that all modes, texts, materials, and activities employed – at secondary and tertiary levels – should reflect this shift towards a more virtual world, with the youth increasingly dependent on digitised forms of entertainment, communication, and learning.

Inquiry 2: How does this research relate to the Game Studies field?

As already noted, the conceptual framework for this study is two-tiered: on the one hand there is the domain of Literary Studies and Multimodality, but because this paper is so situated in the pedagogical affordances of video games in learning contexts, I wish to use the remainder of this section to focus on Game Studies specifically, or ludology, as it is known in academia. Ludology (from the Latin *ludus*, or game) is the study of games, the behaviours involved in playing them, and the players and cultures surrounding these (Frasca 1999; Juul 2004). It is a broad field within cultural studies that deals with all types of games – from sports and board games to more basic acts of play – throughout history. Ludology is therefore not

limited to the study of video games; the latter is only one area of focus. This area in turn comprises a number of smaller strands or approaches to research. The social scientific approach, to name one such strand, explores how games function within society, specifically their impact on the human psyche.

This study, though, may be seen as taking a hybrid approach to gauge our learners' interactions with video games in general, and explores how these may be translated meaningfully into a multimodal redesign pedagogy. This hybrid model combines the Humanities field of ludology with the game design approach. It can thus doubly consider how video games generate new meanings – offering a useful platform for social and cultural discursivity in the language classroom – and how game mechanics and aesthetics may have facilitated my participants' design of their own video game stills. The final products themselves though, for various practical and logistical reasons, take a bit of a departure from the usual, digital screen format which one might expect from a project of this kind. My approach is thus more akin to the work of game designers Amy Jo Kim (2011) and Jane McGonigal (2011), who expounded the many affordances of video games in specifically educational contexts to maximise learning, more than a decade ago. This is where the study finds its theoretical home: in the so-called *gamification* of learning, where the especially aesthetic properties of games are extracted through creative self-discovery, and imported into participants' lessons which had previously been characterised by rote readings of setworks (Ford 2016).

Can games tell stories? A note on the ludology versus narratology debate

Many issues have however plagued Game Studies since its inception in the 1990s (Aarseth 1997; Griffiths 1999; Frasca 1999), most notably the ludology versus narratology debate. The following quotes from Janet Murray (2005) and Jesper Juul (2001) perhaps best capture the key tenets of these two, seemingly irreconcilable camps within Game Studies:

> [The ludological approach] means the rather neutral enterprise of the study of games, and functions as both an ideology and a methodology. The ideology can perhaps be called game essentialism, since it claims that games, unlike other cultural objects, should be interpreted only as members of their own class, and only in terms of their defining abstract formal qualities (Murray 2005:2).

> …games and narratives do not live in different worlds, but can in some ways work together: a narrative may be used for telling the player what

> to do or as rewards for playing. Games may spawn narratives that a player can use to tell others of what went on in a game session. Games and narratives can on some points be said to have similar traits (Juul 2001:[Sp]).

While this paper does not pursue an exhaustive discussion on the two views, I will try to identify the one that had best informed my theoretical framework and methods, whether these were pre-empted or a matter of natural progression on the part of the participants and myself. In retrospect, a militant adherence to the ludological approach would have been at odds with my research questions and aims. Numerous studies in ludology (Frasca 1999; Juul 2004; Crawford 2012; Muriel & Crawford 2019) seem to have only widened the fissure between games as more static ludic interfaces – sans the ability of the player to dictate the outcome of the game as a perceived linear narrative – as opposed to games essentially being interactive stories, not much different from films or novels, with the exception that the player is given more autonomy in said outcome of stages, levels, chapters or even cutscenes. On his blogsite simply called 'Ludology', Frasca (2018:[Sp]) retorts that ludology does not seek to oppose or supplant discourses in narratology, but rather to 'complement' their many theoretical underpinnings – especially in this ninth generation of gaming, with its precipitously changing approaches to artistry, programming and gameplay. Video games are different from films and novels, yes, but advances in hardware have bridged this gap, allowing for a much more immersive and cinematic experience where parts of live play are merged seamlessly with pre-rendered cutscenes and other mechanics. In such cases, Tulia Maria Casvean (2016) argues that the game creator's main intention, however contested this term might be, is to draw the player into an engrossing and filmic world – a modern design element that no doubt leans towards narratological instead of ludological agency.

The difference between ludology and narratology, it would seem, lies at the intersection of playability and readability during gameplay – in other words, the instances or time frames when the player is directly involved in the play on-screen through ludic interfaces such as the computer mouse or joystick, as well as instances where play is temporarily halted to move the story forward. Still, not all games foreground narratives or attempt to tell a story at all, and it is also true that the traditional story or campaign mode (as found across all genres in the heyday of console titles) has fallen somewhat out of use, especially now among a new generation of online-competitive gamers (Zentler 2021).

Despite this irreciprocity between the two approaches, I must concur with Espen Aarseth (1997) who argues for a more holistic view of the two, acknowledging the

insights that both could offer and arguing that it is futile to present them as binaries. Game Studies, according to Aarseth, should be seen as an autonomous and independent academic field – complex, yet not diametrically opposed in its conceptual underpinnings. Having been participant-observer for the duration of this project, I must admit that I share the latter sentiment. Though my participants' artefacts ultimately occurred as static visual-verbal texts – drawings at the very least – they seem to speak of the innermost fears, secrets and conquests of each avatar *in situ*, even for first-time viewers. A picture is indeed worth a thousand words, and the data seen here is highly reminiscent of the fairground attractions seen in Coney Island-style pleasure parks, with their game stalls, sideshows and haunted houses. Because of their two-dimensional quality, video games are quite close aesthetically to the dioramas or painted backgrounds which adorn such attractions. As for the cognitive benefits of video games – or more accurately, the emulation of their screenshots or different interfaces – this study has at the very least enriched my participants' understanding of the literary elements, plot and characterisation employed in their literary setworks, as is evident from recorded testimony. From our point of view, there appeared to be very little difference between "games'" and "stories", after all. Early on in the project, it occurred to us that games were merely a subset of stories, and that any story could be told in the typical construct of video games, albeit through a static and paper-based materiality. There are, of course, many other research foci in Game Studies – most relevant to this study the expressional functions of video games, their potential for player immersion, and the rise of game culture. I will not expand upon these areas here, but I will draw from them in the data section below. What follows is a discussion of the artefacts submitted by the five-strong sample group. Participants' works will be analysed individually, as this allows for a scrupulous look at what mechanics, aesthetics and other elements may have inspired their text-to-game transmodalisations.

Data

Trevor,[2] a grade 11 learner and passionate gamer, approached the redesign task with a clear vision of Shakespeare's *Macbeth* becoming 'a third-person, free-roaming adventure…with cool graphics and epic battles'. I naturally encouraged this, and looked forward to seeing his impressionistic style applied to a Shakespeare-cum-*Tomb Raider* video game recreation. After only two preparatory sketches, Trevor submitted this carefully rendered screenshot of the eponymous hero, approaching the Scottish marshland where he and fellow general, Banquo, would first encounter the witches (Figure 1). From the swampy landscape and objectives

list in the top-left corner, we can assume that these are mere moments before Act 1, Scene 3. By King Duncan's order, the rebel Macdonwald has been killed, his stronghold has been "purged", and although both generals have fought valiantly, Macbeth is yet to learn of his promotion to Thane of Cawdor. Eventually, this promotion would lead to Macbeth's accession to King of Scotland, fulfilling the witches' prophecy.

Macbeth is viewed from behind, in the medium-long shot typical of adventure games today. Rather interestingly, Trevor's description of the game as a 'free-roamer' would imply that players can navigate the landscape freely, completing objectives in whichever order they choose and picking up collectibles, weapons or health packs along the way. Here, however, a waypoint in the form of a blue crystal clearly marks our destination – the heath where the witches lie in wait – though Macbeth himself would not be aware of this. As in the original play, our hero is left to the fate of an existing narrative; oblivious to his immediate future and in many ways puppeteered towards a tragic outcome. Macbeth's metalepsis into the video game world only further intensifies his oblivion and our omniscience, with the player rather cruelly steering him – step-by-step – towards certain death at the hands of a mortal enemy. Trevor has rather ingeniously incorporated the subtlest of signs into Macbeth's

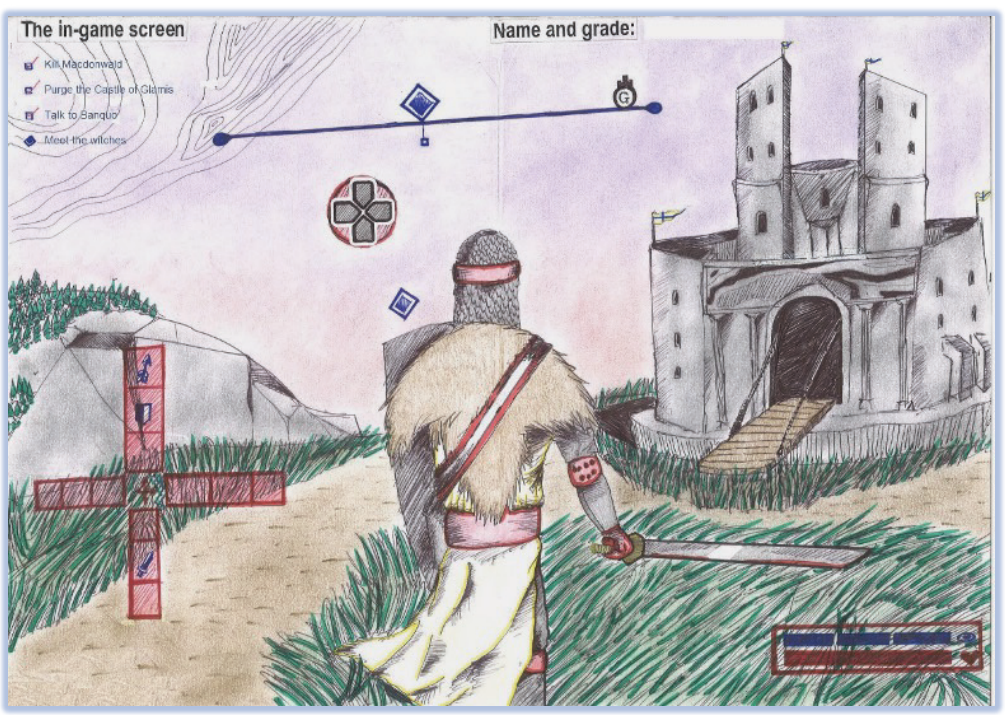

FIGURE **Nº 1**

Trevor's in-game screenshot of Macbeth: The Game. Pencil, pen, whiteboard marker and traces of chalk on paper, approx. 29 x 60 cm.

pose to reveal this hesitant and self-doubting nature; there are no enemies in sight, yet he grips his sword wearily and shields himself against the dusky horizon.

Arguably the most significant feature of Trevor's screenshot is his use of composition, particularly the various video game conventions, as a way into the meanings of the original play. In terms of setting, for instance, we see the luminous green grass typical of the highlands, and four Saltires (Scottish flags) perched atop the towers of Glamis Castle. The latter's wooden drawbridge and surrounding gully will have been standard fortifications for the Scots in the eleventh century, not to mention the archer's balcony (centre) to dispel any invaders from England, Ireland or Normandy. The armour and weaponry of Macbeth (who at this time is only Thane of Glamis) also fit well into the historical context of the play, but the red and white of his sash rather call to mind the colours of England. With his chain-mail hood, bearskin cloak, hilted broadsword and steel shield, he is nonetheless the epitome of High Middle Age innovation.

The narrative potential of video games

From Trevor's work, it emerges that the project has utilised the narrative potential, specifically, of video games, to its fullest. Whether one was "playing" a first-person shooter (FPS), fighting simulator, MOBA or sandbox adventure, their typical screens, interfaces, menus and other mechanics could essentially be replicated on paper, as screenshots of a game-story in progress. The mechanic that seemed to emerge most strongly, though, was the selection of an avatar which proximated one's personality, mood or needs for a particular gaming situation, perhaps before navigating with this avatar through a fictitious world. I refrained from being too prescriptive in my data collection methods, however, or telling participants exactly what to do. The genre frames were merely used to show them – to guide them – in the self-regulated process of embodying their prescribed literature into illustration. Beyond this there was only my guidance as participant-researcher, and a careful selection of scaffolding texts to inspire them during each stage of the journey.

The initial vision was not only for participants to use graphological materials to create their own visions of prescribed literature, but also to afford the future game designer (or at the very least, a young person who is inclined to see the world of plays and novels through the eyes of a digital native) an opportunity to make the setworks their own. In retrospect, this process has particular relevance in Coronatimes, with learners spending more time indoors and looking towards digitised forms of literature (not only games, but Kindle Books, online comics and series streaming) to mollify their boredom. Indeed, during South Africa's rolling

lockdowns, learners across socio-economic strata were essentially glued to their television, computer and phone screens – largely in their role as online gamers – and this should further encourage the import of some of these technologies into the literature curriculum.

I reiterate that game culture has not only seeped into the English classroom, but into many aspects of adolescent learners' psychosocial and cultural experiences in the outside world – that is, the way they read the word and the world. To quickly touch upon some statistics in support of this exponential growth in the popularity of video games worldwide, 75% of households, regardless of socioeconomic background or income bracket, have at least one gamer (Entertainment Software Association 2020; Statista 2021). 65% of adults play video games today, 60% of which are on smartphones, 52% on PC and 49% on dedicated games consoles. The average age of male gamers is 32, whereas 34 is the median for females. This would suggest that gaming has for some time permeated the lives of adults as well. Even today, more than 50 years after the introduction of the first home console, more men than women seem to be gaming – a ratio of 54% to 46%, according to the Entertainment Software Association (2020).

Another learner, Kulani, designed this character select screen (Figure 2) for a fighting game based on Shakespeare's *Romeo and Juliet.* Drawn with much attention to detail, it captures the outward appearances of both the play's primary and secondary characters. The artefact soon asserts itself as more than a slavish exercise in portraiture, however, or an attempt to conjure new likenesses from the Bard's often brief and implicit characterisations. It also includes many subtle references to the tone, plot, and salient themes in the play. To achieve these delicate intertextual webs between the "game" and play, Kulani has drawn from an extensive knowledge of in-game conventions, a love for Japanese anime, and a keen interest in Shakespeare's oft-medieval aesthetic. Quite an eclectic mix of interests, yes, but one that works well to situate each persona convincingly within the twenty-first century, digitised context seen here:

Juliet (right) comes across more as a vixen from Daft Punk's manga universe, and less as the timid girl in Baz Luhrmann's 1996 film adaptation. With her icy stare, pixie ears and windswept hair, she is the rebellious teenager par excellence, whereas Romeo (left) gawks into space, perhaps longing for his love's return. As with Juliet, his attire is surprisingly futuristic, with the tight scarlet suit complementing his eyes and the rose in his hand. The flower's petals – perhaps as an omen that their love will never endure – are blown away by an angry wind, suggested here by the red chalk lines in the background. As Kulani commented: 'Red is the colour of love and

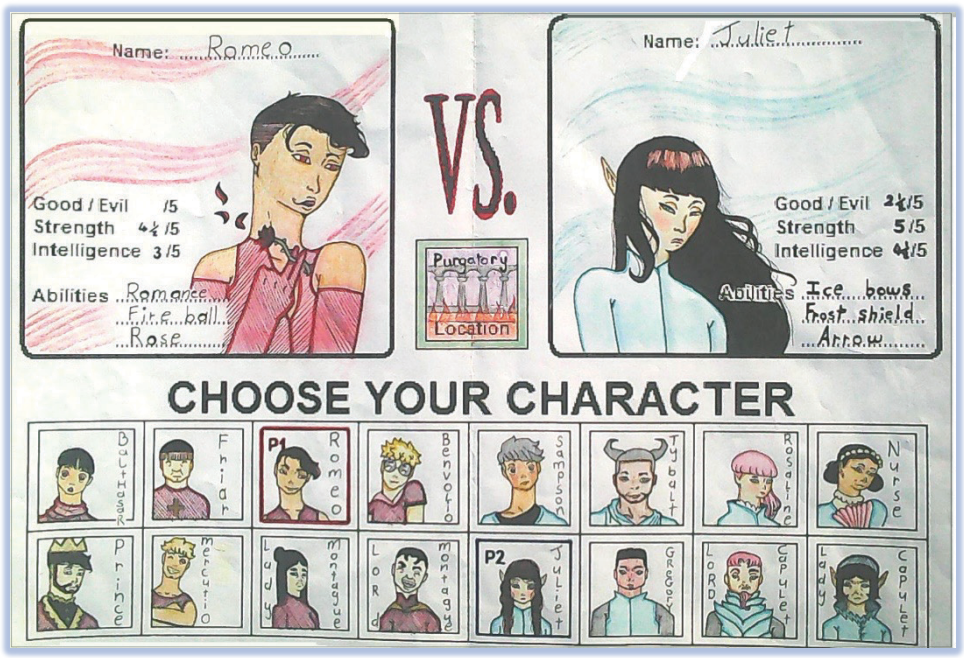

FIGURE **Nº 2**

Kulani's character select screen for Romeo & Juliet. Pencil, pen and chalk on paper, approx. 29 x 60 cm.

passion…but also of anger…you become this colour if things don't go your way'. Though such observations may seem trivial in the wider context of the play, Kulani may have touched on Michael Halliday's (1978) meaning potential of colour, or the use of a single hue to represent an ambience or theme during text-making. In this case, red effectively situates Romeo as a troubled youth – quick to temper and brash decisions – but also as a Montague, since the characters on the left all wear garments of this same, fiery pigment. As noted earlier, a digitally or hand-drawn select screen can be useful for exploring each character's physical traits, attire, carried items – even his or her emotional disposition – as part of a narrative whole. Juliet and her mother's pixie ears, Tybalt's horns and Benvolio's spectacles are but a few examples of such intertextual explorations – they are, if you will, silences or emphases from the play made manifest, and in this case crucial to the viewing of the work as both person- and text-derived.

My initial concerns that the genre frames would be too prescriptive – too limiting in their provision of space or the use of alternative modes – were soon dispelled. Kulani, among others in the video game group, took to the given formats with an urgency and inventiveness seldom seen in the completion of more traditional literature tasks, like prepared speeches or essays. As noted previously, they allowed for increased personal input and the making of truly new meanings, like the details

in Romeo and Juliet's profile blocks (top). Even prior to meeting Kulani, I included here the character values of Good/Evil, Strength, Intelligence and Abilities, to determine just how learners perceived their heroes and villains. Though these statistics were thoughtfully filled in, they did need some explaining in our final interview. I asked why the Good/Evil space had been left empty on Romeo's side, to which Kulani replied: 'I couldn't make up my mind. Romeo changes all the time… the one minute he's a good guy, and the next he just goes crazy…he loses control. [This is] a really bad and evil thing… so I left it open'.

Rather than a case of negligence on Kulani's part, the omission of this detail actually demonstrates an engaged and insightful reading of the play. Although he assumes the role of the protagonist, Romeo is forever the shapeshifter – a fickle yet complex youth whose behaviour changes dramatically across scenes – which may explain the indeterminacy of his "good" or "bad" status here. Juliet, on the other hand, receives an average score for this (2 ½ out of 5), yet excels Romeo in both Strength (5 out of 5) and Intelligence (4 ½ out of 5). For each character's abilities, Kulani was quick to point out that he drew inspiration from the *Mortal Kombat* (1992) series of games. In this critically acclaimed fighting simulator, the player is offered three basic attacks: a close-range or melee hit; a projectile or some other ethereal force ejected from the hands; and an animated taunt to distract or provoke an opponent. Romeo's Romance move, according to Kulani, is one such taunt: he 'hypnotises you with his sweet words', just before attacking with the Fireball projectile or the 'deadly thorns of his Rose'. Conversely, Juliet's abilities continue the Capulets' ice theme with Bows, Arrows and Frost Shields. These are quite reminiscent of the matchmaking tools used by Cupid, the Roman god of love (as referenced in II.ii.70) while Romeo's moves all hint at a certain seduction, a fieriness or – as we learn in the final scene – a passion so strong that it costs him his life.

On "presence"

Despite all the freedoms and artistic liberties afforded by the pedagogy, Kulani still had to look towards extant, canonical characters as the subjects of his select screen. It follows that there is a risk of decreased presence in terms of how participants relate to their hand-drawn avatars, or whilst immersing oneself as one of these avatars in a virtual environ. Whether this risk is of great significance, though, is hard to determine. My methods have always aimed to give participants an opportunity to become one or more of their canonical personas, by drawing from themselves, their perceptions of other people, as well as their unique experiences of characterisation in video games. These could then be siphoned into their own, artistic interpretations of prescribed literature. Kulani, for instance, has here depicted

Romeo as he had *read* Romeo. While he has no doubt taken cues from tradition and Shakespeare's words – even historical reference – he has certainly infused this avatar with his own personality and perceptions of how a fourteenth-century Veronese boy would appear, or how he might come across to us, the agentive reader more than six centuries later.

> Let's reserve the term 'immersion' to stand simply for what the technology delivers from an objective point of view. The more that a system delivers displays (in all sensory modalities) and tracking that preserves fidelity in relation to their equivalent real-world sensory modalities, the more that it is 'immersive'… Presence is about form, the extent to which the unification of simulated sensory data and perceptual processing produces a coherent 'place' that you are 'in' and in which there may be the potential for you to act (Slater 2003:1-2).

If there were to be any opportunity for a reader of canonical literature to be present in their own, individual readings of literature, this would be it. True to Mel Slater's (2003) 'A Note on Presence Terminology', the multimodal agent here has for all intents and purposes designed a multimodal artefact to embody a life – or at least some engagements made within it – to such an extent that each avatar may be seen as an aspect of the creator's personality. There should then be little risk, I feel, of these illustrated avatars underperforming in terms of learners' need to be present in their "read" and "played" texts. On the contrary, it may allow our young readers to feel ubiquitous within their imagined worlds, whether these are derived from their diegetic (in-text) or extra-diegetic (out-of-text) readings.

Somizi, to move to our next participant, opted for computer-generated images (CGI) of his three favourite characters from Romeo and Juliet (Figure 3a, b & c).

Romeo, Mercutio and Tybalt are shown, according to Somizi, 'like they would appear in a console game', in the cell-shaded style which has seen a major resurgence with titles like *Jump Force* (2019) and *Street Fighter V* (2018). With cell-shading, artists prefer the use of flat-shaded planes or polygons with only hints of texture, instead of the high level of realism pursued by most game developers today. The three portraits – composed with a stylus on Microsoft's Paint program – not only demonstrate a deep understanding of Shakespeare's cast, but also an immense talent for drawing in the digital format. Romeo is forever the besotted blue-eyed boy, here sporting an Afro hairstyle and strolling down a dusky, Johannesburg road. Mercutio, on the other hand, confronts viewers head-on in his usual fieriness, with a shock of ginger hair and a red glint to the eye. On his way to the Capulets' ball, he is wearing a "skull mask" – quite eerily foreshadowing his death at the hands of Tybalt in Act 3, Scene 1.

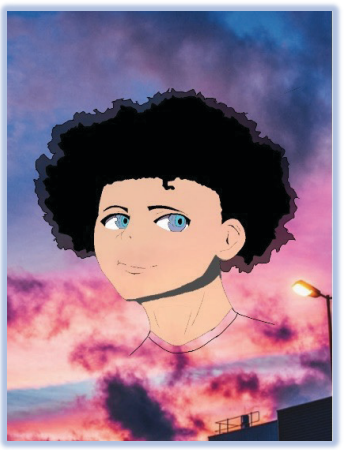

FIGURE **Nº 3a**

Somizi's digital portrait of Romeo.

FIGURE **Nº 3b**

Somizi's digital portrait of Mercutio.

FIGURE **Nº 3c**

Somizi's digital portrait of Tybalt.

Somizi has also chosen an extremely low POV shot for Tybalt, effectively highlighting his domineering personality. With his Thrasher tee, sunglasses, and windswept bandana, he is the picture of cool, like Somizi intended. Indeed, Mercutio nicknames Tybalt "Prince of Cats" to mock his pseudo-radical behaviour and strict adherence to fashion. One particular feature of Tybalt's outfit, the butcher's mask, could reveal his true motive for going to the ball: not to partake in any of the festivities, but to confront the Montagues with murderous intent. For the background, a plain dotted matrix is used to keep the focus on Tybalt, and to situate him further within a virtual or pixelated world. My scaffolding texts for Somizi included Luhrmann's 1996 film (though he had already watched some of it in class) and an extensive viewing of Japanese role-playing games on the PS Vita system. Somizi had used Microsoft Paint before, and the worlds of manga and anime had already permeated his home domain. However, he would later admit to this synthesis of texts and genres – this convergence of old and new, paper-based and digital – having rekindled his interest in the original play and Shakespeare's work in general. This is Romeo and Juliet re-imagined for 2019 *Mzansi*, and a testament to the multimodal revivability of canonical literature.

The fourth participant here is Zoe, whose series of portraits (based on the same play) could be seen as less of an attempt to videogamify Shakespeare's characters, and more as a demonstration of their inner and outer traits through an "old-school anime" lens. To ignite Zoe's imagination, we watched a few episodes of her favourite anime, *Naruto*, on the PS Vita system. This was followed by a discussion on retro gaming, and how her intense interest in these media could translate to prescribed work. She eventually submitted these as her final:

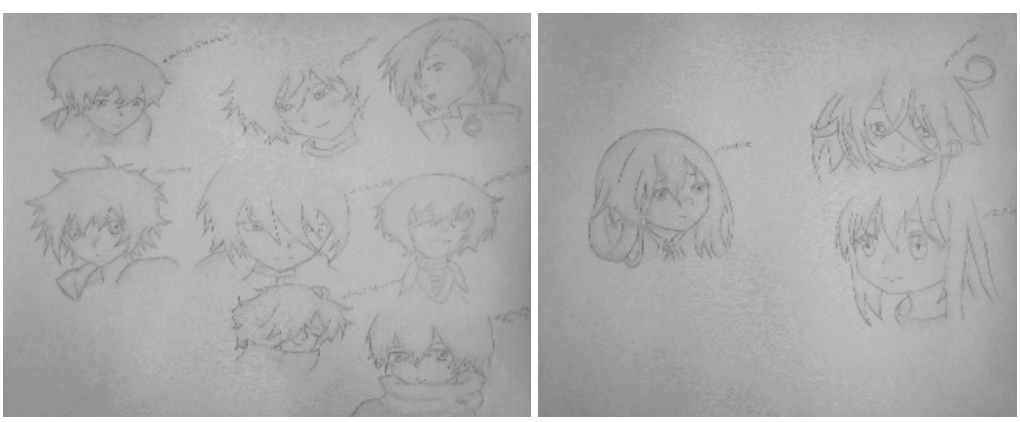

FIGURE **Nº 4**

Zoe's character studies for Romeo and Juliet. Pencil on paper, each folio approx. 29 x 60 cm.

Executed in extremely light tones with a clutch pencil and blender, these eleven studies bring a modern twist to the citizens of sixteenth-century Verona. With the background left entirely blank, it can be argued that the characters are somewhat de-contextualised or removed from the setting, themes, and other literary elements of the play. For the more discerning viewer, though, their eyes alone can speak volumes – especially about their unique reactions to internal and external conflict. It is as if we, the viewers, were granted access to their deepest fears and desires for only a moment – perhaps when they felt most vulnerable, or when no one else was looking. To use Romeo (centre row, left) as an example, the large glints and small pupils of the eyes – together with the blushed nose and mere hint of a mouth – speak of a child broken by the prospect of never being reunited with his one, true love. Conversely, Mercutio (centre row, right) is the picture of confidence, with his smug smile and slight downwards gaze. His dishevelled hair and bandaged eye only add to his fieriness, and may even hint at a prior altercation with the Capulets – though this is not specified in the play. In true manga fashion, Zoe has applied the semiotic vehicles of gaze, gesture, posture and perspective – particularly in the eyes and hair of each character – to communicate her own unique reading of Shakespeare's players.

Finally there is Ekta, whose remaking of the novel *Mother to Mother* (1998) followed somewhat of a grade-wide resistance to the book's burdensome themes and – according to some – an implied rationalisation or "justification" of Amy Biehl's murder by the fictional Mxolisi. This is not how I understood the narrative, though, seeing that Mandisa, Mxolisi's mother, is writing to Amy's mother as a commiseration – a meditation upon apartheid's destructive reach through all cultural and social spheres – and not an attempt to defend her son's violent behaviour. I was also looking forward to Ekta's treatment of the novel as, quote, '…a boxing game, seeing that it is about racial discrimination, and the violence between blacks and whites during apartheid'. This would provide a new and surprisingly humorous angle to what was otherwise a grave topic, as seen in Figure 5. Perhaps comparable to Kulani's work in terms of detail, Ekta's character select and in-game screens offer a visualisation of all characters – true and fictional alike – as well as the scene of their struggle: a boxing ring set up in the streets of 1990's Cape Town.

With such a tongue-in-cheek and potentially offensive take on Magona's novel and apartheid in general, Ekta's work could easily be overlooked as an accomplished study of the destructive residue of colonialism; an investigation into the political complexities which may have given rise to such racial tension and violence in South Africa – now and in the past. The in-game screen, in particular, contrasts the poverty of Mxolisi's township, Gugulethu, against the opulence of Amy Biehl's

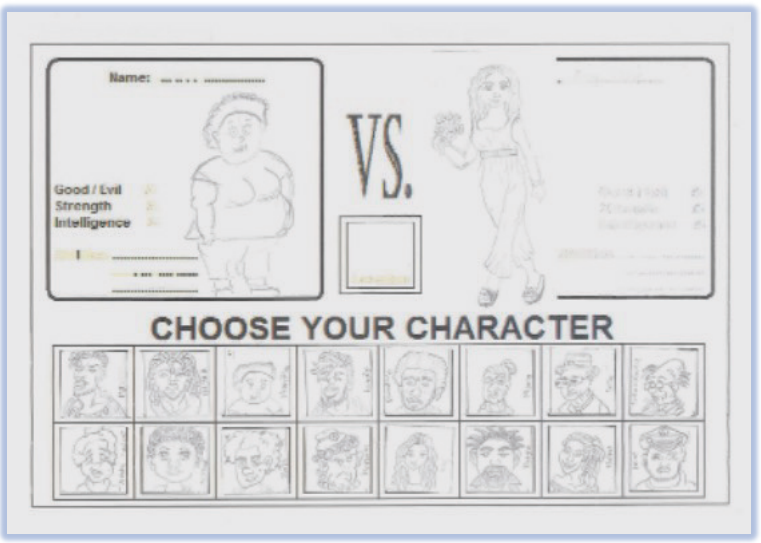

FIGURE **Nº 5a**

Ekta's character select screen for Mother to Mother. Pencil on paper, on folio approx. 20 x 29 cm.

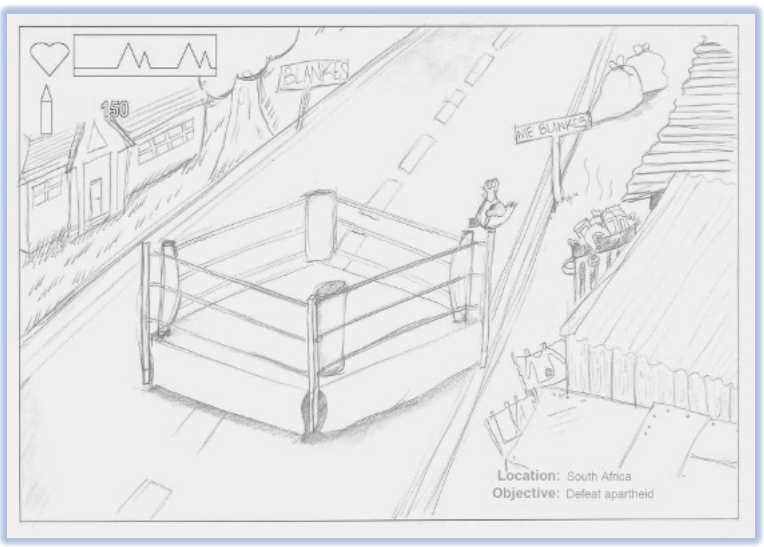

FIGURE **Nº 5b**

Ekta's in-game screen for Mother to Mother. Pencil on paper, on folio approx. 20 x 29 cm.

suburb on the other side of the road. This is not, however, a work of binary opposites or an attempt to pit "blacks" against "whites", but rather an inquiry into our diverse peoples – the domestic workers, American exchange students, gang leaders, policemen and others on Ekta's screen – and the possible reasons for our continued

prejudices. The game objective, as Ekta has indicated below her boxing ring, is to defeat apartheid or the legacies thereof, regardless of the fighters selected.

Findings and Implications

This section shares findings, along with key implications for future practice, based on my three research questions and the data presented. For all participants involved, the text-to-game transmodalisation seemed to open up even the most intricate details of learners' prescribed plays and novels – details which could often be linked to personal life experiences or more idiosyncratic constructs of meaning. Kulani, for one, noted that the video game task allowed him 'to see the true relationships between the characters in [his] play…how one couldn't go without [the other], which also helped to tell the story'. In this simple response, Kulani demonstrates an unprecedented grasp of the characterisation-plot interplay; a synthesis of dialogue, narrative and descriptive content which at times appears steadfast in driving the story forward, or guiding readers towards something signifying resolution within the confines of the play genre (Uys & Kaiser 2008). Over and above this, the video game artefact – as a multimodal recreation of any favourite parts or aspects of the play – could be willed into form entirely on participants' own accord. Despite demonstrating clear links to the prescribed contexts and themes, these artefacts also shed light on the true, agentive needs and literary identities of their creators. Ekta, for example, speaks of her hand-drawn character selection screen as a 'summary' of what she has 'learnt from the story': 'I could show what they looked like and what they did…[and] I could combine this with the games I like, and my life'.

With an inter-genre approach, digital technologies could be emulated quite easily, using paper-based resources and stationery that are relatively affordable. Although the play-to-game transmodalisation focuses on visual text production with electronic screens as its envisioned materiality or sites of display, future participants' works actually need not occur as such. In line with the redesign processes or "semiotic chains" expounded by Pippa Stein (2003,2008), Denise Newfield and Robert Maungedzo (2006), Dylan Yamada-Rice (2015) and others, the emphasis here is on meaning – the agentive construction thereof, with reliance on and reference to setworks – and not the mimicry of existing technologies. It is true that our second participant, Kulani, was not perturbed by the aesthetic authenticity or accuracy of his video game screen at all; he rather saw the task as an opportunity for deep introspection or engaged reading (Ivey & Johnston 2015), and could later apply the

'moral content' of the play to his life at home. He added: 'for me, it's about getting the morals of stories, and doing it by yourself…it's not about who's got the best drawing or who followed the story [most] closely. But I can actually draw'. The process of transmodalisation, it would appear, also facilitates and promotes the text-maker's unique interest and agency (Kress 1993), and goes far beyond merely reproducing the prescribed text.

Partaking in the inter-genre approach involves – among other things – a spinning of 'webs' between diverse texts, and emulating any features of the text one enjoys most (Eagleton 1983:129). One example of this is Trevor's use of outline to mimic the angular landscapes seen in older video games. If one revisits his work (Figure 1), the eye may be drawn to the rocky landscape (left) with its dash of green foliage. Composed mainly of middle-tone squares and triangles, this hill is quite reminiscent of the polygons used in virtual environs. A polygon refers to any flat (usually triangular) surface forming part of a larger element within a virtual world, such as a tree, vehicle, or body of a playable character. During the development of a 3D game, hundreds of thousands of polygons can be conjoined to form what are known as wire-frame models (Anon 2019). These are then textured and shaded to make them more lifelike, or to suit the look desired by developers. One would assume that this particular aesthetic of the virtual world – with its angular objects often coated in visible pixels – would go amiss in participants' work, but with Macbeth: The Game, this is clearly not the case. Note how Trevor, through his almost chiselled treatment of the hill and castle, has captured the look and feel of past-gen 3D titles like *Tomb Raider* (1996) or *Ape Escape* (1999). As early as 1992, though, Norman Fairclough had conceptualised such a spinning of webs between texts as "intertextuality" (and between discourses, as "interdiscursivity") but in this project these concepts had been mobilised to become more accessible for young participants, and geared towards a concrete pedagogy which could be applied with relative ease in future.

My participants' selection and use of art elements were never arbitrary. Upon closer scrutiny, the five artefacts reveal that every convergence of lines, shapes, colours, and textures – and indeed the occurrence of these elements in isolation – can be linked directly to the content of the prescribed play which served as "source text" for redesign. In line with Gunther Kress' (1993) view that the sign is always selected for its aptness to the expression of a particular meaning, it would appear that the type of art element used in specific areas of our graphological supports – that is, our A3-sized video game frames – as well as their execution or manner of application, may be key indicators of how the agent has received, processed and ultimately redesigned the most attractive or personally resonant meanings from his or her setwork. In a sense, the line, shape or colour may act here as a word would in whatever its

etymological context; they speak for themselves or complement other elements as a means to communicate an atmosphere, a tone or ambience most reminiscent of the original. Somizi, for example, has superimposed Romeo's head over a skyline of Shakespeare's Verona, with the blue of his eyes echoing the clouds (or smoke) overhead. Zoe followed a similar cutesy aesthetic, but relied less on colour and more on a triangulation of the eyes, nose, mouth and hair to make each portrait "pop" as a true fighting game avatar.

But could lines, shapes, colours and textures carry a semiotic weight equal to that of words? My participants' use of the art elements as near-autonomous signifiers within the larger orchestration of the video game screenshot – or any other genre explored in the larger project – have yielded some surprising results as far as their semiotic impact or sheer potential for communicating meaning is concerned. In the full study and elsewhere, I have likened the singular trace, inscription or mark left on paper to the more conventionalised structures of written language, as if the outline of a figurative drawing could bear a significance equal to that of a grapheme (letter) within a larger unit like a word (morpheme) – even a line of a poem. To conclude this section, Table 1 lists the four most conspicuous types of "traces" or "marks" made by the participants on their A3-size paper supports, and further shows how these could be applied to make such meaningful intertextual connections.

As in the larger study, such mappings of intertextual connections between the original prescribed text – on the one hand – and the redesigned artefact – on the other – are not intended to demonstrate the degree by which learners could mimic or 'translate' each text through alternative modes or materialities (Batchelor 2019:4). On the contrary, the mimicry of canonical literature was never expected of learners, nor should it be of anyone wishing to participate in an inter-genre pedagogy, now or in future. This drawing of linguistic, visual, gestural and sonic parallels – between what is read and later embodied through multimodal artefact – instead shows how my participants had made the literature theirs. They had taken ownership of it, internalised it, or siphoned it into their school-removed contexts as a natural by-product of the videogamification process.

Mark / inscription made	Examples in participants' artefacts	Contextual, thematic or modal connections made between the prescribed and remade text	Intertextual device / effect created (Kristeva, 1966; Moi, 1991)
Line	Trevor: the outlines of Macbeth's weapons in HUD; the bullets / letters in objectives list	Integrates games conventions into Macbeth's setting; draws from Shakespeare's vocabulary	Metalepsis; quotation
	Ekta: the faces / bodies of characters, and drawing of 'boxing ring' game map	Places Magona's characters into a familiar fighting game setting	Intertextual use of character and setting
Shape	Kulani: the Doric pillars in Purgatory, the location selected for the fight	Places Shakespeare's characters into a familiar fighting game setting	Alternative point of view
	Zoe: the angular / sculpted look of manga hairstyles	Makes subtle references to Shakespeare's character descriptions, e.g. Mercutio's eye-patch	Allusion / pastiche
Colour	Kulani: the red / blue costumes used for Montagues / Capulets respectively	Emphasises, through colour, the enmity between the two families	Parody
	Somizi: the red of Mercutio's hair	Emphasises, through colour, Mercutio's fiery personality	Allusion
Texture	Trevor: the flat / textureless planes used for hill in background	Places Shakespeare's hero into a familiar adventure game setting	Allusion
	Somizi: the clothing brand names (Supreme; Thrasher) used as textures in background / on T-shirt	Integrates popular culture (brands, modern hairstyles clothes, etc.) into Romeo and Juliet' s characters	Plagiarism

TABLE Nº 1

Table listing four types of graphological marks made in learners' artefacts; how they are applied to make connections between the prescribed and remade text; and intertextual effects created.

Study Limitations

I have noted this earlier, but the most obvious constraint that may arise from a pedagogy of this kind could be the slightly atomistic view afforded by the videogamification of the prescribed play – that is, the possibility that only a preferred set of themes, characters, settings and other literary elements will be explored by the agent during artefactual redesign. While it would be impossible to include every detail of the canonical text in the newly embodied, multimodal text, those who wish to employ the inter-genre approach in future may want to guide their learners adequately throughout the redesign journey – particularly in terms of what section, chapter, act or scene from the original should be remade, via which materials or medium (in other words, the specific screen used) and to what end. Will the character select screen be used to explore the unique facial features, mannerisms or styles of clothing of a dramatis personae, or will the in-game map be created to acquire a birds-eye view of the setting and movements of the players therein, at least in one act or scene? In any event, the sheer flexibility of the genre frames offered here (as well as the fact that they can be photocopied quite cheaply for large learner groups, distributed at different times and for different reasons) seems to nullify the above limitation, and may actually encourage learners to focus on the narrative details or nuances of their setworks – one step at a time. This may, in turn, greatly improve their knowledge of canonical literature, as well as the quality of their responses to essay-type questions in preliminary and final exams. A final limitation may be the small sample size of five (11 across all three disciplines) as it could call into question the study's representivity, or for its findings to be generalised to larger groups. This design feature has however allowed for a much deeper, or more scrupulous, analysis of data.

Conclusion

As we speak, digital games are the medium closest to learners' perceived literacy identities, with both mobile and console technologies dominating a large part of their everyday, especially after-school, routines. When the new millennium was still in its infancy, the video game had already permeated classroom walls worldwide, encouraging educators and researchers to look beyond age, cultural and socio-economic strata when applying it as a supplementary, if not central, scaffold for learning in a variety of subjects and disciplines. In the data section above, five high school learners' remakings of their prescribed literature into video game scenarios served as a demonstration of what could be achieved in this respect; a microcosm

of gaming in future research and praxis. This abundance of artefactual data (together with the largely positive feedback that followed) generated many significant findings. Instead of keeping to the genre's immediate affordances for literacy learning, these extended to issues of social identity, pedagogic sustainability, intertextual connectivity, and the sheer agency behind learners' selection of signs, among others.

Still, what emerges most strongly is that the video game could far surpass its accepted uses for recreation or entertainment and – in more ways than one – mobilise those materials at risk of losing the interest of young adults. No longer should digital games be imbricated to the home domain or stereotypical "man-cave"; they are polyglots of immense depth, literary parallels and modal variety, and therefore perfect candidates for bringing together the home- and school-based literacy acts (Heath 1983; Street 1993). The data I have presented, in particular, may contribute to the multimodal oeuvre through its more distinctive, fine-grained analyses of video game screenshots. These artefacts, I conclude, attest to a grossly under-explored skill among children to communicate the subtlest of signs and subtexts from their prescribed narratives – rather paradoxically, by drawing from out-of-school texts and experiences. At the very least, these artefacts have demonstrated the richness and sheer inexhaustibility of the young sign-maker's repertoire in making meaning. In a world now gripped by pandemics, natural disasters and the looming reality of climate change, such pedagogies may very well in the future afford our learners the autonomy and creative freedom they need to layer their writing using multiple modes, each with their own affordances.

Notes

1. "Videogamification" is applied here as opposed to "gamification", since the project had specifically employed video games – by definition, those digital-interactive media that are connected to a television monitor, and processed through a standalone console (Newman 2004; Wolf & Perron 2014). Though the term, gamification, now enjoys more currency in academia, I feel that videogamification more accurately captures the particular source text that my sample drew inspiration from in the design of their artefacts. Games and video games are thus two very different embodied phenomena. One could assume that games involve anything from competitive, turn-based activities such as card playing, to popular board games like chess or Hasbro's Monopoly (Bell 1983). Video games, in contrast, are more specific to the realm of digital-interactive technologies, and are distinguished by ludic interfaces such as games controllers. This is an important distinction to be made in all future scholarship, as applying gamification as an umbrella term in the field of Game Studies may prove problematic or misleading to the discerning reader, especially researchers.

2. Pseudonyms used.

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