



### Serious games in service of Theology



Author:

Willem H. Oliver<sup>1</sup>

#### Affiliation:

<sup>1</sup>Department of Christian Spirituality, Church History, and Missiology, School of Humanities, College of Human Sciences, University of South Africa, Pretoria, South Africa

Corresponding author:

Willem Oliver, wh.oliver@outlook.com

Dates:

Received: 24 Apr. 2023 Accepted: 10 Aug. 2023 Published: 16 Jan. 2024

#### How to cite this article:

Oliver, W.H., 2024, 'Serious games in service of Theology', *Verbum et Ecclesia* 45(1), a2883. https://doi.org/10.4102/ve.v45i1.2883

#### Copyright:

© 2024. The Author. Licensee: AOSIS. This work is licensed under the Creative Commons Attribution License. Serious games (SGs) are part and parcel of the Fourth Industrial Revolution and Education 4.0 that we are living in right now. A SG is an alternative educational approach where a part of the curriculum, in this case, the practical side of Practical Theology – being one of the subjects presented to prospective theologians and pastors – is presented in the form of a game, familiarising the students with practical issues in a congregation. This article takes the educator through the main steps on how to create an SG together with an entire team of people. The underlying goal of the article is to get one educator interested in venturing on this innovative and 'disruptive' expedition.

**Intradisciplinary and/or interdisciplinary implications:** This article involves all the disciplines of Theology, especially Practical Theology, as well as Psychology and Information Technology (IT) (especially the designer and developer). The content of this article can be applied to any person in any discipline (whichever discipline it is) who wants to create an SG for their students.

**Keywords:** Theology; serious games; traditional education; parroting; educator-centred teaching; student-centred teaching.

### Introduction

We are currently living within the realm and era of the Fourth Industrial Revolution (4IR), which constantly impacts and changes what we do and even who we are (Pascoe 2022). One could say that this is in fact general knowledge. We cannot do now what we did in the past anymore, or be the same people as we were in the past – we have to adapt to this new normal. If we do not adapt, we will be trying to keep the past alive and in this way, becoming out of date, and in fact inefficient. With reference to education, the implication is that the institutions of higher education (IHEs) should also adapt to the new era, *inter alia*, with reference to the presentation and contents of their curricula (cf. Checa & Bustillo 2019:5501). This article aims to contribute to the way in which an alternative educational approach can be utilised in curricula within the faculties of Reformed Theology in Pretoria, Bloemfontein, and Stellenbosch in South Africa, with specific reference to the subject, Practical Theology.

It is alarming to observe that the style of presentation in classrooms has, in many cases, not changed much over the years (cf. Gous 2022:2151; Caruth & Caruth 2013:12). Most of the time, the students are still sitting in the classroom while the educator presents a 'lesson' and they have to write down all the disseminated knowledge as quickly as possible - 'often without even thinking about it' (cf. King 1993:30). This pedagogical style already starts in the pre-graduate years where the students are taught biblical languages (Hebrew, Greek, and Latin) and other subjects. When the students commence with their post-graduate studies, they indulge in subjects like Old Testament, New Testament, Systematic Theology, Church History, Practical Theology, Missiology, and Christian Spirituality. This article suggests that the educators should give a serious thought to the implementation of an alternative educational approach like 'serious game' (SG) in their respective subjects. Serious games in short are games played on smartphones within a learning environment, with the objective 'to develop skills and teach concepts in a ludic way' (Enoch 2022:1 of 6), requiring 'complex reciprocities of engagement, motivation, challenge, and flow'3 (Bjørner 2021:157), linked to enjoyment (cf. Sweetser & Wyeth 2005), also called entertainment or edutainment (Ge & Ifenthaler 2017; Moizer et al. 2022: 2 of 27). More characteristics and advantages of SGs will be discussed further.

1.According to Gous (2022:215), '[t]he classroom of 2022 and the classroom of 1922 and 1822 looks disconcertingly similar, with the guiding pedagogies inside the classroom also fairly comparable'.

2. Ironically, the term 'serious game' is not a novelty, as it was first used by Abt (1970).

3.Cf. Csikszentmihalyi (1990) for an elaborated discussion on game flow.

4.Perna (2022:50) adds that the use of SGs results in positive effects with regards to numerous and diverse outcomes, such as knowledge acquisition, conceptual application, content understanding, action directed learning, affective and behavioural change, physiological outcomes, skill improvement, motivation, participation, engagement and improvements in both academic and work related tasks (also cf. Bai, Hew & Huang 2020).

Read online:



Scan this QR code with your smart phone or mobile device to read online.

Something that does not form part of the scope of this article, but needs to be addressed cursory, is that most Theology students have a part-time job as they are either married or in need of money to make ends meet for themselves, while they are studying. This means that they cannot focus all their attention on their studies, therefore mostly aiming to 'just pass' all their subjects. As the presentation of classes is still mostly done in an educator-centred style, the students quickly learn to just 'parrot' their educators in order to pass a subject at the end of the year because they do not have enough time to study.<sup>5</sup>

One of the red lights that flashes here is that during their 'tenure' at an IHE, the students are mostly presented with theory, even in a subject like Practical Theology, as the practical side of the subject is mostly conducted and discussed in a theoretical way, resulting in a 'weaker and less robust understanding' of the subject (Checa & Bustillo 2019:5502). The practical congregational scenarios - grassroots' level scenarios - which involve the congregants and all their needs and challenges ('problems') in a specific congregation, the congregation's administration, as well as field work, mostly do not enjoy the practical component at the Theological Faculty that should be attached to it. Students are therefore not practically trained enough to handle and administer situations in the congregation, like unwanted pregnancies, cohabitation, adoption, divorce, and post-divorce, and the youth, let alone LGBTQ+ congregants (Rasmussen 2022) 2020), and school or cyberbullying (cf. Van der Merwe 2020). Sabri, Moumen, and Fakhri (2021) have also experienced this challenge in their field of study, stating and asking:

Students develop a big commitment personally and invest financially to pursue their education and get the degree that opens many gateways for them, but what if the degrees don't match the skills required by most employers? (p. 1)

I have already addressed the issue of implementing a SG in 2019, with specific reference to the mastering of the biblical languages (cf. Oliver 2019:4–5 of 8). This article links to that article by implementing a SG, focusing more on practical situations in congregations. I am proposing that the educators in Practical Theology should seriously think of starting to design SGs in order to assist their students to handle these real-life congregational situations better.

# A constructivist approach to learning

This article aligns the constructivist theory with and applies it to SGs. Constructivism can be divided in at least three broad categories, that is, cognitive constructivism of which Jean Piaget is the originator (cf. Brau 2018), social constructivism, which was developed by Lev Vygotsky (cf. Brau 2018), and radical constructivism, based on the works of Ernst von Glasersfeld (Von Glasersfeld 2002; cf. McLeod 2019). *Cognitive* 

TABLE 1: The traditional classroom versus the constructivist classroom.

The traditional classroom (in line with education 2.0) <sup>6</sup>	The constructivist classroom: In-person and online (in line with education 4.0)
Teaching happens on an educator- centred basis.	Teaching happens on a student-centred basis.
The educator adheres to a fixed curriculum.	The educator gives more room and openness to the students and values their input.
The educator acts as the authoritative figure with a directive role.	The educator's role is interactive, forming constant dialogue with their students.
Passive learning: students only receive knowledge.	Active learning: educators and students are working interactively to construct the students' knowledge.
Parroting: learning is based on repetition.	Interactivity: students are assimilating the new knowledge and fit it into their current knowledge framework.
Students are working in groups to summarise the masses of work for the exams.	Students are working in groups to disseminate and create more knowledge.

constructivism argues that a student constructs their own knowledge from their current cognitive structures, in line with their cognitive development. During the teaching process, the educator must assist the student to assimilate the new information provided to them, with their existing knowledge, in this way modifying their existing intellectual frame of reference. Social constructivism, on the other hand, claims that learning is a process of collaboration between a student and their culture or society. Learning is therefore first a social interaction, followed by a personal action happening inside the student, making it their own. According to radical constructivism, one's senses are constructing all the knowledge that one has, meaning that the knowledge is not perceived – it is invented and not discovered. For the sake of this article, Piaget's cognitive constructivism will be followed as an applicable learning theory.

Obviously, (cognitive) constructivism is student-centred, in line with Education 4.0 (cf. Popenici & Kerr 2017). King likens the student to a carpenter 'who uses new information and prior knowledge and experience, along with previously learned cognitive tools (such as learning strategies, algorithms, and critical thinking skills) to build new knowledge structures and rearrange existing knowledge' (King 1993:30). Students are therefore not passive recipients of knowledge, but become active participants in 'a collaborative problem-solving environment' with their educator (McLeod 2019). This is in line with the words of King (1993:30), claiming that the educator is no longer the 'sage on the stage, [but the] guide on the side'. (He has already claimed this 30 years ago!)

## A different era, a different classroom

A comparison between the current functioning of many Theology classrooms, and what Education 4.0 actually acquires from educators and students (cf. McLeod 2019) is presented in Table 1:

6.According to Gous (2022:217), many educators at IHEs are still lecturing in line with Education 2.0, and not even with Education 3.0. This is mainly because they do not have the relevant digital competencies. Sandí-Delgado, Sanz and Lovos (2022) have written an article, addressing this subject, which is highly recommended.

<sup>5.</sup> This is called the transmittal model, assuming that the brain of a student (passive party) is like an empty vessel in which the educator (active agent) pours their knowledge (King 1993:30). This mistake posed by this theory is that the educator does not disseminate knowledge, but just information (King 1993:30).

TABLE 2: The Traditional educator vs the 21st-century student.

Traditional educator	21st-century student
They are mostly resistant to change.	They resist staying the same.
They are mostly stagnant, arguing that they have learned things in the traditional way, and they prefer that way of education.	These students are 'disruptive' and always look for new ways to do things.
They are unwilling to spend a lot of their precious time in creating new curricula, let alone developing a SG.	They devote a lot of their precious time to get acquainted with new things and situations, like games.
They do not have the knowledge to develop or present a SG, and are therefore biased towards it.	As they are not schooled in playing digital games, they school themselves and master it in no time.

The difference between the traditional educator and the 21stcentury student can be summarised in Table 2 as follows:

The classroom for 21st-century students requires the educators and students to share their knowledge with each other in a student-centred space. They are even sharing authority in this interactive classroom. This classroom - be it in-person or online – is therefore not the space for learning anymore, but it becomes the space for the development of skills according to the presented subject's requirements. In Practical Theology, where the students are required to familiarise themselves with the way in which challenges in congregations (already indicated above) are met and handled, the classroom must become a 'congregation' filled with challenges (individuals with 'problems') and solutions (counsellors who are assisting the 'people in distress'). The classes therefore become case studies where students are free to explore, make mistakes without endangering people or humiliating themselves, and also learn in 'real life' scenarios. The educator should act only as an advisor and an informed listener.

While skills should be developed inside the classroom, academic learning takes place in any other place, wherever the student prefers it. The new era in which we find ourselves, therefore calls for a different and innovative classroom, linked to 'disruptive stuff,' in the case above, mostly linked to SGs, which will take a lot of time to create, but will also bring much satisfaction for the educators (and the students). This will be discussed further in the text.

### The advantages of serious games

As indicated earlier, today's students differ in many respects from the 'students of yesterday,' as 'they are seeking for more interesting, fun, motivating [games] and ... prefer learning based on experiences' (Anastasiadis, Lampropoulos & Siakas 2018:139). They love to work in groups, being together 'all the time' – be it virtual or in-person. Their 'way of thinking, their concept of effective learning as well as their educational needs and requirements have drastically changed' (Anastasiadis et al. 2018:139).

An adjustment to student-centred education requires a changed classroom – one that could be supplemented by a SG. One may ask, 'But what is the advantages of a SG?' Almeida and Simoes (2019:121, 124) answer the question this way: '[S]erious games in an educational context promote the development of skills and abilities through immersive

experiences, [while offering] a significant number of benefits, such as making players feel responsible for success according to their actions, combining high-quality content, showing great involvements, and turning errors into learning elements'. Anastasiadis et al. (2018) add that:

[S]erious games offer motivating and engaging experiences, interactive learning environments and collaborative learning activities [putting students] in a position of conflict and confrontation as they often have to compete or cooperate with each other [within] a constructivist learning environment. (p. 139)

Hall, Watson, and Kitching (2017:2 of 16) illustrate that SGs 'offer environments in which players feel comfortable to explore complex challenges and situations safely ... without experiencing social stigma'. Gee (2003:23) focuses more on groups of students, called 'affinity groups' where individuals interact with each other, sharing their acquired 'knowledge, skills, tools and resources' (Gros 2007:30). These citations are filled with the kind of characteristics that a 21st-century student can identify with. Being in a student-centred environment, the educator has to seriously take note of these.

To assist the educator even more, Chandross and DeCourcy (2018:2 of 27) refer to core elements in higher education, including collaborating in groups or teams, making plans, taking decisions, and being resourceful within groups. These 'core elements', if recognised by the educator, are also part and parcel of SGs and will therefore enhance both the teaching and learning processes.

Something that will make life much easier for both educators and students, is the fact that because SGs involve continuous training (Mokhtar, Ismail & Muda 2019:331) and assessment – consisting of 'high-engagement learning' (Chandross & DeCourcy 2018:2 of 27; cf. Jacobs 2021:32) – the educator can easily replace many of their formative and summative assessments and assignments with a thoroughly planned SG. As many students are not comfortable with tests and exams, as these are in many cases accompanied for them by anxiety (De Klerk & Kato 2017:34), this seems to be the perfect solution. Shute (2011:503) describes this kind of assessment spot on as 'stealth assessment', as the students, while participating in the game, are not really aware of them being assessed.

In this environment, the educator is constantly in the background, monitoring every student, as they handle the challenges of a congregation by means of a SG. When the students therefore have questions, the educator should be available (at least within reasonable hours of the day) to supply prompt and direct answers (Anastasiadis et al. 2018:141; Mokhtar et al. 2019:331). Will this become overwhelming for the educator?

# 'This is asking too much!' versus 'This is imperative!'

Just to change the curriculum of a subject, requires ample time, currently not being linked to any incentives from the IHEs in South Africa where educators are working. The writing of books, chapters, and articles is linked to incentives and even overseas trips, making just the idea of recreating or revamping one's curriculum a very difficult decision. However, as the *main goal* of an educator is to teach (based on research done), it seems to be imperative to take the idea further and present a more innovative curriculum – one that is in line with Education 4.0. To bring an educator to this point, is already a massive step in the right direction. However, to convince an educator to take the next step and create a SG, could be 'asking too much'.

On the other hand, one will find the odd educator who already thinks in an Education 4.0 direction and who realises that the students will benefit from a SG, one who is prepared to forget about incentives for a while – and one whose IHE will be willing to allow that educator to present a SG. This is the person who will be willing to go all the way and create a SG. The question that the next section answers is how one goes about to create a SG.

### The creation of a serious game

The first thing that an educator has to do when they decide to create and implement a SG, is to get a team together, as the educator cannot (in most cases) successfully do the job alone. According to Nousiainen et al. (2018:85), the educator must initially assess themselves with reference to their capability or competence in four main areas, namely the pedagogical, technological, collaborative, and creative areas. If the educators find themselves to be lacking some of these characteristics, they would need another educator with these characteristics to become part of the team. Notwithstanding this, the educator would do good to find an exciting and competent fellow educator to assist them in compiling the contents for the game – two academic heads are better than one. (For the sake of this article, I will constantly refer to 'educators' and 'students' in this concern). It would also be good to inform the Faculty about one's intention to create a game, thereby also introducing the members to this alternative and innovative way of learning.

The educators should also realise that this is a multidisciplinary effort (Bakhtiari 2022:3 of 6), as they will have to find both an interested and competent designer and developer for the game. The game designer's job is to design the concept, title, theme, and 3D animation of the game for a smartphone – in line with the curriculum and in cooperation with the educators. The game's mechanisms and rules also form part of these discussions. The game developer will utilise these mechanisms and rules to develop the game. However, the team is not complete yet, as the end user of the game - the student - should also be represented in the team. One or two students will make a positive contribution to the whole process, having a shared power and control over the curriculum and its contents (Camilleri 2017; Maheu-Cadotte et al. 2021:1 of 10). Bonnier, Andersen, and Johnsen (2020:25) explain that the students will be the best evaluators of the usability of the game. This team will have to organise many

discussions between them in order to find each other ('get on the same page') and eventually to make the game playable.

Although the team is now complete, they cannot commence with the work. The reason? Funds. To create a SG is very costconsuming (cf. De Klerk & Kato 2017:33), and the bigger the team wants to go, the more expensive this project will become. The team will have to sit down and responsibly decide on the amount of funds they need in order to complete this project. Together with this estimate, they must have a well-planned introduction, introducing the members of the IHE's board to SGs and the advantages thereof, also indicating that they have already done the groundwork (e.g., getting a team together) and specify what their job description and framework entail to finish the project. The IHE board could present a myriad of excuses not to fund the project, for example, being biased towards this venture, or simply not having the funds for it. If this happens, then many educators will think that this is the end of the road, but it is not. There is still the private sector, and in this specific case, the church institutions themselves. The private sector has much sympathy for projects like these, which will most probably make this a positive endeavour (cf. Hall et al. 2017:12 of 16). Somewhere someone will have a positive ear and fund the project. This can become very tiring and demotivating, but it should not. If the team feels that they are not up to it to get the necessary funding, then maybe it is time to get a professional marketeer (maybe one that works for their IHE) to help them deliver a better presentation in order to get the funds.

Having secured the funding (at last), the initial work is done. The next step involves the educators and students to compile the contents for the game, while the designer and developer take notes of the proposed contents. In our example case, using Practical Theology, the educators and students must decide which scenarios they need to be done in an interactive 3D animation (by the designer) to become part of the game (at least 50 scenarios), in order to teach the students enough about the congregational challenges, indicated above. This is an exhaustive venture and will take some time to complete. Doing that, and in cooperation with the developer and designer, the educators must make sure that the 'three highlevel needs of autonomy, relatedness, and competence' are operationalised in each scenario (Jacobs 2021:32).<sup>7</sup>

At this stage, it would be good to decide on a name (title) for the game. Now everyone has some work to do. The designer<sup>8</sup> and developer will have to start with the initial development of the

<sup>7.</sup>These needs form part of the self-determination theory of Ryan, Rigby and Przybylski (2006).

<sup>8.</sup>The designer, together with the educators, are recommended to be well-informed on how to design a SG for Theology students. Many articles, like the one by Westera (2019) are focusing on how to properly design such a game, in order to keep the attention of the students. The dominant pedagogical paradigm in the design of an SG, is called learning from experience (Westera 2019:60), with related terms such as inquiry learning (cf. Papert 1980), discovery learning (cf. Bruner 1961), problem-based learning (cf. Barrows & Tamblyn 1980), constructivism (cf. Jonassen 1991), situated learning (cf. Lave & Wenger 1991), experiential learning (cf. Kolb 1984), and learning by doing (cf. Aldrich 2005; Schank 1995). All these terms refer to 'learning by active exploration and self-direction rather than learning from instruction' (Westera 2019:60).

game, including the 'rules' of the game (Enoch 2022:3 of 6), while the educators and students will have to write full scripts for at least five of the congregational scenarios (this also includes the distinctive questions that should be asked in the game on how to handle each scenario). This takes much longer than expected.

When the two groups of the team have finished this part of their work, then the team should come together again and discuss what they have done. The designer and developer will first show the app and start of the game, while the academical 'critics' will decide whether it is good enough or needs improvements and adjustments. <sup>10</sup> The educators and students will then put the contents and questions of the first five of their congregational scenarios on the table for discussion.

It is then time for the designer to start with their arduous job to create the 3D animation. This also takes much longer than expected, as it must look authentic and have a good background and 'feel'. All the members of the team are therefore involved in this action, also the developer who must make sure that the scenarios are captured well enough to fit on the screen of a smartphone. When a scenario is finished to the satisfaction of every member of the team, the developer-*cum*-designer then take it and 'gamify' it.

When a scenario is fully loaded onto the game, then the students (and educators) must assess the prototype to see if it works properly,<sup>11</sup> if the scenario is clear enough on the screen, if the questions are fully relevant, if the overall 'feel' of the scenario is good, and how it can be improved (Enoch 2022:3 of 6). In this way, the team creates the game identity (Enoch 2022:3 of 6). Part of this is scaffolding.<sup>12</sup> This is a very important concept, as the scenario must neither be too intricate, nor too easy. It is also of no use to hurry everything at this stage (just to finish it) – as this is the most important part of the whole venture – where the game in its full format must be tested to the satisfaction of the educators and students. Having reached this point with all the scenarios (five at a time) completed, the game is ready to be used by the broader group of students. It would be good to go back to the

Faculty and show the members the completed game (and invite them to play).

If everything goes according to plan, this venture will take the best part of a year to finish. However, the positive results flowing from this SG will make up for all the time that the team has spent on all the stages of the SG.

# Excursus 1: Cognitive behavioural therapy

Multi-, inter-, and transdisciplinary research (MIT) is currently a buzzword and something that every discipline at an IHE is recommended to do (cf. Schmalz, Janke & Payne 2019; Stock & Burton 2011). When the Practical Theology curriculum reaches the point where the students should do congregation work, especially counselling congregants with challenges or problems, it is highly recommended for the students to be exposed to a specific course in Psychology, called Cognitive Behavioural Therapy (CBT) (cf. Chan et al. 2021), before engaging themselves in doing this kind of work in a congregation, and then specifically also on the SG which will entail much counselling. Together with the SG, this course could form part of their Practical Theology training.

The American Psychological Association (APA 2017) gives a cursory discussion on CBT. Cognitive Behavioural Therapy, being a kind of psychological treatment, effectively addresses and treats psychological challenges and mental illnesses, including marital problems, teenage pregnancies, depression, anxiety and eating disorders, and drug abuse (alcohol and nicotine included).

The core principles of CBT are (APA 2017):

- Wrong (faulty) ways of thinking easily lead to psychological problems.
- These are based on 'learned patterns of unhelpful [behaviour]'.
- With CBT, the counsellor can help the congregant ('patient') to cope with their problems, to relieve their symptoms, and to once again become more effective in life.

In order to do this, the congregant must be taught how to change their *thinking patterns*. The counsellor could use the following strategies, helping the congregant to:

- Identify the distortions in their thinking patterns, and to re-evaluate them.
- Use problem-solving skills that could assist them in coping with their situation in a better way.
- Start to believe (gain confidence) in their own abilities.

Apart from that, the congregant should be taught how to change their *behavioural patterns*. In this case, the counsellor should, in a collaborative way, help the patient to, where applicable:

• Face their challenges, not to avoid them.

<sup>9.</sup>Each scenario should be designed in the form of a narrative, as this is the best way to engage the student in the scenario and overall in the game. Naul has devoted an entire dissertation on this subject (Naul 2018). The three characteristics of game narratives that she focuses on, are endogenous fantasies (including challenge, curiosity [cf. Bjørner 2021:158], and control, coupled with fantasy), empathetic characters or virtual agents (characters to whom the student can relate), as well as adaptiveness or responsivity (cf. Naul 2018:vi; 24–35).

<sup>10.</sup>As indicated in my previous article (Oliver 2019:4–6 of 8), the game will obviously contain game features like awards, trophies, XP points, and rankings within the class (which will all form part of continuous assessment), complemented by a direct line to the educator and fellow students. It should also indicate when the student has successfully completed one level (scenario) and is ready to proceed to the next one.

<sup>11.</sup>Olejniczak, Newcomer and Meijer (2020) wrote a valuable article on the characteristics of advanced evaluation (cf. also Peetsma 2019:33–38). Moizer et al. (2022) have written an article on the evaluation of the experience of a SG. The team, specifically the academics, should read these articles to assist them in their process of assessment of the SG.

<sup>12.&#</sup>x27;Scaffolding' refers to the difficulty level of a game. A game should be designed in such a way that it is just above the skill's level of a student (cf. Priyaadharshini et al. 2020:469). Jalongo (2007:401) puts it this way: 'The key is to set the level of difficulty at the point where the learner needs to stretch a bit and can accomplish the task with moderate support'. This will maximise the students' engagement, keeping them interested in playing further (Gros 2015:40; cf. also Maheu-Cadotte et al. 2021:2 of 10). McClarty et al. (2012:14 of 35) add that a game should contain the necessary elements 'to engage students and help them enter a state of flow where they are fully immersed in their learning environment and focused on the activity they are involved in'.

- Use roleplay, preparing themselves to interact with people who could harass them or hinder them to live life to the full.
- Learn how to become calm and relaxed with everything they do.

The main aim of CBT is to help 'individuals to be their own therapists' (APA 2017). In order to reach this point, the counsellor should assist the patient to acquire a way of developing coping skills that would be unique for them and their situation, with which they will be able to change their personal emotions, thinking patterns, and behaviour in line with, and built on their faith.

What makes CBT so attractive, is that it focuses on a patient's current life, with less emphasis on their history. This is a more realistic way to cope with life. With this tool in hand, the students will be far better equipped to handle situations in a congregation and then also on the SG. The suggestion here is therefore that the students first do the CBT course before they engage in the SG. The implication is that the educators should have done the course before starting to compile the contents of the SG, in order to know what the correct questions for each scenario would be.

# Excursus 2: 'Salaries' (bursaries) for theology students

Without going into too much detail, it is imperative to suggest here that when a student wants to become a preacher and they are screened positively for the job – before they start their studies – their church institution should 'employ' them from their first year onward. That implies that they will become part of a congregation from starters, and work at that congregation during the weekends and holidays (December excluded) on an annual basis (swopping congregations at the end of the year if necessary). By doing this, the students will not have to go and look for jobs and will have ample time to study and really become acquainted with a congregation's environment and space. This will create more diligent students, who are also more knowledgeable of the subjects that they take up at the IHE. This is no pipe dream, but should be made a reality.

Funds? The church institution does not have to pay a cent for all of these. The better way to go is the adopt-a-student option where a few families in a specific congregation will sponsor a student who is working in that congregation for a year. The church institution should also take care that all their students receive free Wi-Fi and that each of them has access to a smartphone.

### Conclusion

This article approaches the educator with an 'impossible' challenge namely, to sacrifice the best part of 1 year of their life, to give up their peace and quiet lifestyle, to leave their comfort zone, and to become something they have never

dreamt of: to be disruptive. In this article, the educator is introduced, maybe for the first time, maybe not, to SGs and the advantage of presenting a SG to their students. The educator finds a broad outline with suggestions on how to start with a SG, till it is completed. Read together with my previous article, being referred to, as well as all the articles and books being cited, the educator will hopefully have enough information to take an informed decision for or against a SG.

The two excursuses in this article are absolutely disruptive, firstly to recommend that the Faculty of Theology should reach out to Psychology and send its students there to pursue a course, and secondly, to employ all the Theology students in order to give them ample time to study and not waste their hours of time on frivolous stuff just to get money to make ends meet. To my mind, if church institutions really are serious about their students and the survival of their institutions, they will certainly take these recommendations seriously.

As the article has indicated, the motivated and willing educator (educators) who is willing to create a SG, has a strenuous task at hand, finding the right team members, creating the right scenarios for the SG, getting and holding everyone in the team on the same page, and making sure that the SG realises the expectations attached to it – being a quality SG and an indispensable tool in the hands of the educators-cum-students.

A very straightforward question that the educator should ask themselves, is: Why does a post-graduate decide to become an educator? The obvious answer should be to work with and teach students. The focal point of the educator should therefore be their students. The more committed the educator is, the more committed (most of) their students will be. When students realise that their educator gives their everything, they tend to give more attention to that subject. This breeds a love for the subject and many post-graduate students.

Student-centredness adds to the educator's better relationship with their students. Furthermore, when the educator 'goes over the top' and presents a quality SG to the students, then that educator will experience satisfaction on so many levels, including:

- The students will attend more classes more students will attend the classes – where the scenarios in the SG can be discussed and debated, also creating new scenarios.
- The students will perform better in this subject, compared to others.
- There will be a camaraderie between the educator and the students.
- The SG could be counted as continuous assessment (portfolio), in whatever way the educator prefers it.

If there is just one educator that is touched by this article, then it has served its purpose.

### **Acknowledgements**

### **Competing interests**

The author has declared that no competing interest exists.

### **Author's contributions**

W.H.O. is the sole author of the research article.

#### **Ethical considerations**

This article followed all ethical standards for research without direct contact with human participants.

### **Funding information**

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

### Data availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

#### **Disclaimer**

The views and opinions expressed in this article are those of the author and do not necessarily reflect the official policy or position of any affiliated agency of the author, or the publisher.

### References

- Abt, C.C., 1970, Serious games, Viking Press, New York, NY.
- Aldrich, C., 2005, Learning by doing: The essential guide to simulations, computer games, and pedagogy in e-learning and other educational experiences, John Wiley & Sons, San Francisco, CA.
- Almeida, F. & Simoes, J., 2019, 'The role of serious games, gamification and industry 4.0 tools in the education 4.0 paradigm', *Contemporary Educational Technology* 10(2), 120–136. https://doi.org/10.30935/cet.554469
- Anastasiadis, T., Lampropoulos, G. & Siakas, K., 2018, 'Digital game-based learning and serious games in education', *International Journal of Advances in Scientific Research and Engineering* 4(12), 139–144. https://doi.org/10.31695/ IJASRE.2018.33016
- APA (American Psychological Association), 2017, What is cognitive behavioral therapy? viewed 10 April 2023, from https://www.apa.org/ptsd-guideline/patients-and-families/cognitive-behavioral.
- Bai, S., Hew, K.F. & Huang, B., 2020, 'Does gamification improve student learning outcome? Evidence from a meta-analysis and synthesis of qualitative data in educational contexts', Educational Research Review 30, 100322. https://doi. org/10.1016/j.edurev.2020.100322
- Bakhtiari, R., 2022, 'The relationship between different concepts in the field of games', in 7th International Conference on Computer Games, pp. 1–6, February, University of Isfahan, Isfahan, Iran, viewed n.d., from https://cgco2022.ui.ac.ir/en/.
- Barrows, H.S. & Tamblyn, R.M., 1980, Problem-based learning: An approach to medical education, Springer, New York, NY.
- Bjørner, T., 2021, 'How can a serious game be designed to provide engagement with and awareness of the plastic crisis as part of UN's SDGs', in *Paper delivered at GoodIT 2021*, pp. 157–162, September 9–11 2021, Rome.
- Bonnier, K.E., Andersen, R. & Johnsen, H.M., 2020, 'Games and learning alliance', in I. Marfisi-Schottman, F. Bellotti, L. Hamon & R. Klemke (eds.), 9th International Conference, GALA 2020, pp. 24–33, December 9–10 2020, Laval.
- Brau, B., 2018, 'Constructivism', in R. Kimmons (ed.), *The students' guide to learning design and research*, EdTech Books, viewed 05 April 2023, from https://edtechbooks.org/studentguide/constructivism.
- Bruner, J.S., 1961, 'The act of discovery', Harvard Educational Review 31(1), 21–32.
- Camilleri, M.A., 2017, 'The corporate social responsibility notion', in M.A. Camilleri (ed.), Corporate sustainability, social responsibility and environmental management, pp. 3–26, Springer Nature, Cham.
- Caruth, G.D. & Caruth, D.L., 2013, 'Understanding a resistance to change: A challenge for universities', *Turkish Online Journal of Distance Education* 14(2), 12–21.

- Chan, T., Gauthier, R.P., Suarez, A., Sia, N.F. & Wallace, J.R., 2021, 'Merlynne: Motivating peer-to-peer cognitive behavioral therapy with a serious game', in J. Nichols (ed.), Proceedings of the ACM in Human-Computer Interaction, Association for Computing Machinery, New York, April 2021, vol. 5, pp. 1–23.
- Chandross, D. & DeCourcy, E., 2018, 'Serious games in online learning', *International Journal on Innovations in Online Education* 2(3), 1–27. https://doi.org/10.1615/IntJInnovOnlineEdu.2019029871
- Checa, D. & Bustillo, A., 2019, 'A review of immersive virtual reality serious games to enhance learning and training', *Multimedia Tools and Applications* 79, 5501–5527. https://doi.org/10.1007/s11042-019-08348-9
- Csikszentmihalyi, M., 1990, Flow: The psychology of optimal experience, Harper Perennial, New York, NY.
- De Klerk, S. & Kato, P.M., 2017, 'The future value of serious games for assessment: Where do we go now?', Journal of Applied Testing Technology 18(1), 32–37.
- Enoch, R., 2022, 'How to professionalise a serious game? Application to "lino has an ideal", in *Paper Delivered at International Conference on Engineering and Product Design Education*, pp. 1–6, September 8–9 2022, London South Bank University, London, viewed n.d., from https://epde.info/2022/.
- Ge, X. & Ifenthaler, D., 2017, 'Designing engaging educational games and assessing engagement in game-based learning', in R. Zheng & M.K. Gardner (eds.), Handbook of research on serious games for educational applications, pp. 253–270, IGI Global, Hershey.
- Gee, J.P., 2003, What video games have to teach us about learning and literacy, Palgrave MacMillan, New York, NY.
- Gous, I.G.P., 2022, 'You're on your own now! Cultivating curiosity to support self-directed learning by means of a three dimensional questioning strategy', in E. Oliver (ed.), Global initiatives and higher education in the fourth industrial revolution, pp. 213–236, UJ Press, Johannesburg.
- Gros, B., 2007, 'Digital games in education: The design of games-based learning environments', *Journal of Research on Technology in Education* 40(1), 23–38. https://doi.org/10.1080/15391523.2007.10782494
- Gros, B., 2015, 'Integration of digital games in learning and e-learning environments: Connecting experiences and context', in T. Lowrie & R. Jorgensen (eds.), Digital games and mathematics learning: Potential, promises and pitfalls, vol. 4, pp. 35–54, Springer, Dordrecht.
- Hall, N.M., Watson, M.J. & Kitching, A., 2017, Serious about games, pp. 1–16, viewed 12 April 2023, from https://www.westerncape.gov.za/sites/www.westerncape.gov.za/files/state\_of\_gaming\_report\_2017.pdf.
- Jacobs, R.S., 2021, 'Winning over the players: Investigating the motivations to play and acceptance of serious games', *Media and Communication* 9(1), 28–38. https://doi.org/10.17645/mac.v9i1.3308
- Jalongo, M.R., 2007, 'Beyond benchmarks and scores: Reasserting the role of motivation and interest in children's academic achievement: An ACEI position paper', Childhood Education 83(6), 395–407. https://doi.org/10.1080/00094056. 2007.10522958
- Jonassen, D., 1991, 'Objectivism versus constructivism', Educational Technology Research and Development 39(3), 5–14. https://doi.org/10.1007/BF02296434
- King, A., 1993, 'From sage on the stage to guide on the side', *College Teaching* 41(1), 30–35. https://doi.org/10.1080/87567555.1993.9926781
- Kolb, D.A., 1984, Experiential learning: Experience as the source of learning and development, Prentice-Hall, Englewood Cliffs, NJ.
- Lave, J. & Wenger, E., 1991, Situated learning: Legitimate peripheral participation, Cambridge University Press, Cambridge.
- Maheu-Cadotte, M.-A., Dubé, V., Cossette, S., Lapierre, A., Fontaine, G., Deschênes, M.-F. et al., 2021, 'Involvement of end users in the development of serious games for health care professions education: Systematic descriptive review', *JMIR Serious Games* 9(3), e28650. https://doi.org/10.2196/28650
- McClarty, K.L., Orr, A., Frey, P.M., Dolan, R.P., Vassileva, V. & McVay, A., 2012, A literature review of gaming in education. Pearson's Research Reports, pp. 1–35, viewed 25 October 2022, from https://images.pearsonassessments.com/images/tmrs/Lit\_Review\_of\_Gaming\_in\_Education.pdf.
- McLeod, S., 2019, 'Constructivism as a theory for teaching and learning', Simply Psychology, viewed 13 February 2023, from https://www.simplypsychology.org/constructivism.html.
- Moizer, J., Lean, J., Dell'Aquila, E., Walsh, P., Keary, A., O'Byrne, D. et al., 2022, 'An approach to evaluating the user experience of serious games', Computers & Education 136, 1–27, viewed 15 April 2023, from https://pearl.plymouth.ac.uk/bitstream/handle/10026.1/13702/An%20approach%20to%20 evaluating%20the%20user%20experience%20of%20serious%20games.pdf?sequence=5&isAllowed=n.
- Mokhtar, N., Ismail, A. & Muda, Z., 2019, 'Designing model of serious game for flood safety training', *International Journal of Advanced Computer Science and Applications* 10(5), 331–339. https://doi.org/10.14569/IJACSA.2019.0100541
- Naul, E.A., 2018, 'Why story matters: A review of narrative in serious games', Master's dissertation, Faculty of the Graduate School, University of Texas.
- Nousiainen, T., Kangas, M., Rikala, J. & Vesisenaho, M., 2018, 'Teacher competencies in game-based pedagogy', *Teaching and Teacher Education* 74, 85–97. https://doi. org/10.1016/j.tate.2018.04.012
- Olejniczak, K., Newcomer, K.E. & Meijer, A., 2020, 'Advancing evaluation practice with serious games', American Journal of Evaluation 41(3), 339–366. https://doi. org/10.1177/1098214020905897
- Oliver, W.H., 2019, 'Serious games in theology', HTS Teologiese Studies/Theological Studies 75(4), a5465. https://doi.org/10.4102/hts.v75i4.5465
- Papert, S., 1980, Mindstorms: Children, computers, and powerful ideas, Basic Books, New York, NY.

- Pascoe, Q., 2022, 'Education 4.0 from the front line', The Citizen, viewed 30 September 2022, from https://www.citizen.co.za/news/opinion/education-4-0-from-thefront-line-september-2022/.
- Peetsma, J.J., 2019, 'Towards a serious game for assessing civilians' self-reliance in a crisis', Bachelor thesis for Creative Technology thesis, EEMCS, UT.
- Perna, S., 2022, 'The design of serious games for competency-based education', PhD thesis, Department of Engineering, University of Palermo.
- Popenici, S. & Kerr, S., 2017, 'Exploring the impact of artificial intelligence on teaching and learning in higher education', *Research and Practice in Technology Enhanced Learning* 12(22), 1–13. https://doi.org/10.1186/s41039-017-0062-8
- Priyaadharshini, M., NathaMayil, N.R., Dakshina, S.S. & Bettina, S.R., 2020, 'Learning analytics: Game-based learning for programming course in higher education', *Procedia Computer Science* 172, 468–472. https://doi.org/10.1016/j.procs.2020.05.143
- Rasmussen, S.E., 2022, 'LGBTQ+ congregants navigating identity in the context of "welcoming but not affirming" evangelical, pentecostal, and non-denominational religious institutions: A queer narrative analysis', University of Portland honors theses, paper 1254, viewed 01 October 2022, from https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=2430&context=honorstheses/.
- Ryan, R.M., Rigby, C.S.S. & Przybylski, A.K., 2006, 'The motivational pull of video games: A self-determination theory approach', *Motivation and Emotion* 30(4), 347–363. https://doi.org/10.1007/s11031-006-9051-8
- Sabri, Z., Moumen, A. & Fakhri, Y., 2021, 'Serious games at the service of student's integration into the work sector: Case of computer science engineering students', *SHS Web of Conferences* 119, 05005. https://doi.org/10.1051/shsconf/202111905005

- Sandí-Delgado, J.C., Sanz, C.V. & Lovos, E.N., 2022, 'Acceptance of serious games to develop digital competencies in higher education', *The Electronic Journal of e-Learning* 20(3), 351–367. https://doi.org/10.34190/ejel.20.3.2181
- Schank, R.C., 1995, Engines for education, Lawrence Erlbaum, New York, NY.
- Schmalz, D.L., Janke, M.C. & Payne, L.L., 2019, 'Multi-, inter-, and transdisciplinary research: Leisure studies past, present, and future', *Journal of Leisure Research* 50(5), 389–393. https://doi.org/10.1080/00222216.2019.1647751
- Shute, V.J., 2011, 'Stealth assessment in computer-based games to support learning', in S. Tobias & J.D. Fletcher (eds.), *Computer games and instruction*, pp. 503–523, Information Age Publishing, Charlotte.
- Stock, P. & Burton, R.J.F., 2011, 'Defining terms for integrated (multi-inter-transdisciplinary) sustainability research', *Sustainability* 2011(3), 1090–1113. https:// doi.org/10.3390/su3081090
- Sweetser, P. & Wyeth, P., 2005, 'GameFlow: A model for evaluating player enjoyment in games', Computers in Entertainment 3(3), 14–27. https://doi. org/10.1145/1077246.1077253
- Van Der Merwe, P., 2020, 'Experiences of vulnerable children in a South African public child and youth care centre', *International Journal of Criminology and Sociology* 9, 1322–1332. https://doi.org/10.6000/1929-4409.2020.09.152
- Von Glasersfeld, E., 2002, Radical constructivism: A way of knowing and learning Ernst von Glasersfeld, Reprint, The Falmer Press, London.
- Westera, W., 2019, 'Why and how serious games can become far more effective: Accommodating productive learning experiences, learner motivation and the monitoring of learning gains', Education Technology & Society 22(1), 59–69.