education sciences

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Innovative Strategies for Fostering Student Engagement and Collaborative Learning among Extended Curriculum Programme Students

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Abstract: Massification in higher education has made the satisfaction of students' needs unattainable among university lecturers. In contrast, the use of innovative strategies for collaborative learning enhances student engagement in the heterogeneous student context. Moreover, this paper aims to explore strategies for fostering student engagement through collaborative learning among first-year students at the University of Venda. To answer the research question of whether innovative learning designs in teaching and learning can foster students' engagement and collaborative learning, subsequently, this paper employed a mixed-methods approach to gauge the effectiveness of different teaching strategies on student outcomes. Significantly, the purposive sampling approach was used to sample a group of 200 students in the Extended Curriculum Programme (ECP). The researchers used participant observation and narrative inquiry as data collection instruments in this paper. Furthermore, the students in their respective groups were assigned topics from the English and Biology modules to use their talents to demonstrate their understanding of certain complex concepts in these modules. The non-surprising findings of this paper elucidated that collaborative learning expedites students' mastery of key concepts and subject content through the integration of talents. The module lecturers introduced students to these innovative designs to ensure collaborative learning and effective student engagement. The key findings articulated that these aspects, namely role-playing exercises, group projects, peer-to-peer learning, use of talents, peer feedback, and so forth, have the potential to improve student performance and academic success. The implication of this study is that students learn to work together, delegate responsibilities, improve participation, and communicate effectively to attain a common goal. Using these strategies, lecturers promote collaboration among students and foster a more engaging and interactive learning experience. This paper further recommends the integration of students' talents as an effective strategy to foster student engagement and collaborative learning to track and monitor at-risk students at an early stage.

Keywords: collaboration; gamification; game-based; massification; student engagement; talent

Citation: Zitha, I.; Mokganya, G.; Sinthumule, O. Innovative Strategies for Fostering Student Engagement and Collaborative Learning among Extended Curriculum Programme Students. *Educ. Sci.* **2023**, *13*, 1196. https://doi.org/10.3390/educsci13121196

Academic Editors: Vasiliki Brinia and Robyn M. Gillies

Received: 26 August 2023
Revised: 9 November 2023
Accepted: 13 November 2023
Published: 29 November 2023

1. Introduction

Massification in higher education has made the satisfaction of students' needs unattainable among university lecturers. Hornsby and Osman [1] argued that in institutions of higher education massification brought about challenges for student learning in large classes and the questions of how this can be improved and if quality education can be achieved in such classes. Generally, massification leaves institutions of higher learning with an increase of diverse students in learning and teaching activities that are set out through a single set of curricula and teaching styles. This was further highlighted by Megbowon, Palesa, Bongiwe and Sipokazi [2] who stressed that the massification of programmes and broadening access to post-secondary school education have increased the dimensions of

differences and characteristics of students in institutions of higher learning. This sets out a one-size-fits-all approach to learning and teaching activities, posing shortcomings in students' mastery of concepts within the curriculum. Teaching and learning practitioners need to use innovative learning and teaching strategies that would ensure students engage and participate in academic activities. This paper aims to explore innovative designs for fostering student engagement and collaborative learning among first-year students at the University of Venda. Over the past 5 years, there has been an increase in the intake of students in the Faculty of Science, Engineering, and Agriculture; Department of Science Foundation Programme at the University of Venda. The student intake has increased from 150 to 200 per annum since the 2019 academic year. In addressing this shortcoming, a traditional learning approach that is either teacher-centered or learner-centered is likely not to focus on each student's desire in and out of the classroom. This implies that lecturers can only do so much in teaching and learning while under-resourced. Consequently, some of the students feel disengaged and disinterested in some of the key aspects and rudiments in the subject content owing to the student's prior knowledge. Along the same vein, Mokganya and Zitha [3] reported that the dissimilar prior knowledge of the students as they transition into the academic space has been observed as an impediment to their mastery of the concepts and subject content. Subsequently, this limitation can be addressed by the integration of the talents to catalyse students' engagement and collaborative learning, which may yield success in the module in which this is employed. To foster students' engagement in a particular course, each module's curriculum as well as teaching and learning activities in that module should be designed with the aim to achieve such an objective. Biggs [4] alluded to the belief that learning-related activities within any prescribed curriculum should stimulate students' academic focus and interest in learning, as they jointly affect students' levels of engagement in each task. Although the curriculum is one-size-fits-all, learning and teaching activities within such a curriculum should lead students to mastery of concepts either through individual or collaborative learning. Along the same vein, Børte, Nesje, and Lillejord [5] asserted that over the years there have been frequent calls for more student-active learning, yet previous studies have found that learning and teaching offerings remain predominantly offered using the traditional learning approach that is teacher-centered. Therefore, curriculum design and its learning activities play a leading role in the inclusion of teaching and learning activities that enhance students' engagement and collaborative learning. In contrast, the use of innovative strategies for collaborative learning in teaching and learning has the potential to enhance student engagement in concepts taught and mastery of the learning outcomes. The aim of this paper is to explore innovative teaching and learning strategies for fostering student engagement and collaborative learning among first-year students at the University of Venda. This study adopts Vincent Tinto's social integration theory as a lens to explore how innovative teaching strategies can improve student engagement.

2. Literature Review

Student engagement and collaborative learning in higher education has been a subject of considerable concern and research due to its impact on learning outcomes and students' success. Oliveira et al. [6] reviewed several studies that have been conducted on gamification and indicated that most studies only consider students' gamer types to tailor the systems yet do not provide sufficient statistical and empirical evidence on students' learning and performance using gamified systems in the curriculum. Oliveria et al. [6] highlighted that most empirical studies in gamification found that (i) gamification aims to improve students' concentration, engagement, performance, and/or decrease students' frustration and demotivation in educational systems [7,8]; (ii) gamification can offer ways diverse for students to perform desired educational activities associated with game elements [9–11]; (iii) gamification yields benefits to students, e.g., increasing students' motivation, enhancing learning performance, or improving training processes [12–14].

Several studies have highlighted the importance of gamification to aid students' performance and enhance mastery of concepts taught within the curriculum. Gamification is important as it yields students' engagement and collaboration by motivating them to work together to achieve the desired performance and success. Consequently, Koivisto and Hamari [10] concurred that gamification in an educational context does not necessarily improve student outcomes. However, in this study, it is expected that gamification may help students towards some highly dense mastery of the biology threshold concepts. Some students and teachers may find gamification as a way to foster students' engagement and collaboration in teaching and learning activities. Nevertheless, it is critical to highlight that amid the use of gamification to foster collaborative learning and student engagement, students' satisfaction is likely not to be holistically achieved. Students are different based on their cultural, socio-economic background, educational, age-related, and prior knowledge differences. These differences are also expected to influence their teaching and learning style preferences throughout their study programmes.

Hornsby and Osman [1] stressed that the global increase in student enrolment in higher education qualifications may imply an inverse relationship with higher education service quality. This notion was also stressed by several researchers [1,15,16]. The contrast is that there is a general norm of belief that the number of students in a class has a correlation with learning and teaching quality and performance. Giannakis and Bullivant [17] argued that massification affects the service quality of learning and teaching activities in higher education. Although class size is not the only determinant of students' performance, class size matters in the delivery and experiences of learning and teaching to the overall participants in a classroom [18].

Our foundation programme massification grew from 150 to 200 students since 2019, thus an increase in enrolment of 33.33%. Enrolments have some impacts on learning and teaching deliverables as well as students' experiences on the learning and teaching activities. In addressing challenges posed by increased enrolments threatening the quality of education, this study explored innovative designs for fostering student engagement and collaborative learning. This is a learning and teaching activity in a curriculum that seeks to address students' dimensions of differences within collaborative learning by demonstrating their understanding of certain content in the module via given class tasks, assessments, and/or assignments.

2.1. Student Engagement

Over the past decades, there have been studies conducted on student engagement. In contrast to these studies, the term student engagement has been widely defined. Gibbs [19] argued that the term "student engagement" has become a buzzword as it has been widely defined. Ref. [20] described the term "engagement" as students' commitment to the learning process towards the attainment of the module and programme objectives. The closest definition of student engagement to our study was asserted by the Glossary of Education Reform [21], which defined student engagement as "the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education".

Zainuddin et al. [14] highlighted that there are three dimensions of student engagement in teaching and learning: behavioural, emotional, and cognitive engagement. Dubey, Pradhan and Sahu [20] described "behavioural engagement" as the level of interest the students display in their teaching and learning activities; "emotional involvement" relates to students' favourable or negative perceptions towards their lecturers, peers, academics, and educational institution. Meanwhile, "cognitive engagement" displays students' effort and willingness to study as they push themselves towards mastery of concepts in a particular module or programme.

In this study, student engagement is observed through the lens of peer-to-peer engagement happening at the behavioural, emotional, and cognitive engagements throughout

the duration of the English and Biology project. The engagement may be online or offline in any platform or learning management system. Through these student engagements, it is expected that students will be engaging freely at their prescribed pace and their peer-to-peer learning will yield results at project and concept mastery levels. Students are to prescribe their own terms of engagement within their groups; therefore, their willingness to participate and enhance learning will foster their interest in engagement and collaborative learning.

2.2. Game-Based Learning and Gamification

In an education context, game-based, gamification and collaborative learning are used to improve students focus on learning, engagement with learning activities facilitated by their peers or teachers, and performance, as well as to alleviate students' frustration and demotivation in teaching and learning [6]. Tan Ai Lin, Ganapathy and Kaur [22] highlighted that both game-based learning and gamification should be used in a manner that allows learners the opportunity to be fully involved in the learning activities. They further argued that this kind of student-focused engagement aids learners' full concentration and mastery of concepts due to its 'play nature.' In our context, we used students' collaborative learning to foster engagement, attention, and promotion of knowledge whilst they engaged in their assigned activity.

Wiggins [23] differentiated between game-based and gamification learning: (i) game-based learning, which is the use of actual games in the learning and teaching context to enhance students' mastery; (ii) gamification is the use of game-design elements in a non-game context. This study was solely focusing on gamification and collaborative learning and not on game-based design and methodologies pertaining to game-based learning. Zicherman [24] and Kapp [25] highlighted that gamification is a process in which people make use of the thinking and mechanics behind games for problem-solving and audience engagement. This study focused on the use of gamification to enhance and foster student engagement and collaborative learning. Students used their artistic and game aesthetics abilities to write up and present their assignments. A hidden curriculum in this activity was that students were learning through social constructivism, which led students to research a particular concept, understand the concepts, and interpret it through gamification.

2.3. Collaborative Learning

Collaborative learning is an educational approach to students' interaction in learning and teaching that happens within peers or groups of learners working together to solve a given problem or task completion or create a product [26]. Oxford [27] asserted that collaborative learning has a "social constructivist" philosophical base, which views learning as the construction of knowledge within a social context and therefore encourages the acculturation of individuals into a learning community. In this phenomenon, collaborative learning is achieved through interaction and knowledge construction among the learners and the teacher. In this philosophy of learning, learners are seen and perceived as knowledge communities. This means that learners are core creators of knowledge simultaneously with the teacher. This is achieved through social constructivism amongst the learners in creating, sharing, and adding to knowledge construction with the "more capable others".

This is a distinct difference between cooperative learning, collaborative learning, and interaction highlighted by Oxford [27]. Oxford [27] emphasized that cooperative learning enhances cognitive and social skills based on known techniques. On the other hand, collaborative learning mostly focuses on acculturating learners into knowledgeable communities wherein learners engage with capable others as well as with their peers to enhance guidance on their learning.

This study's objective was to explore innovative and creative strategies for fostering students' engagement and collaborative learning. The collaborative learning philosophy was explored wherein students worked in groups to create and construct knowledge amongst themselves and with the "more capable others".

2.4. Theoretical Framework

Vincent Tinto [28,29] as the proponent of the social integration theory argues that students' perceptions of their social integration into the institution represent a principal factor in their persistence. This means that students who feel connected to their peers and feel satisfied with their educational experience tend to persist. Students who feel isolated or unsupported by their peers and faculty or who do not feel engaged in the life of the institution are more likely to drop out.

This study adopts Vincent Tinto's social integration theory as a lens to explore how innovative teaching strategies can improve student engagement and collaborative learning. In line with Vincent Tinto's study, innovative and creative teaching and learning designs were integrated through collaborative learning where students were assigned tasks to work in groups in which they were supposed to engage with peers in the preparation and presentation of their tasks. In this study, innovative and creative teaching and learning activities were designed to allow students to use their talents to express their conceptualisation of biology key concepts and course content through presentations. This social engagement may enable the students to feel connected to the learning environment and more satisfied with the experience through peer-to-peer feedback helping them feel less isolated. Hence, this study builds from the lens of social engagement to student engagement and collaborative learning.

2.5. Purpose of the Study

The purpose of this study is to extensively explore innovative strategies for fostering student engagement and collaborative learning among first-year students.

2.6. Research Questions

This paper sought to answer the following research questions:

- What are the benefits and challenges of collaborative learning among ECP students?
- How can innovative teaching and learning strategies improve student engagement and understanding of the course content in the ECP?

3. Methodology

3.1. Study Design

This study employed a purposeful sampling research approach on selected students enrolled for Foundation Biology 1140 (FBI 1140) and Foundation English Skills (FGS 1140) at the University of Venda. A purposeful sampling method was chosen for its ability to provide rich, relevant data from a specific group of students. The study is based on a collaborative design that aimed to explore the effects of project-based learning focusing on students' different talents to promote their mastery of Biology content and English-speaking skills. Students were first pre-tested to evaluate their language-speaking skills and biology content knowledge. This study employed a mixed-methods approach to gauge the effectiveness of different teaching strategies on student outcomes. For the data collection, students were first asked to identify their various talents to execute the projects. In the second step, students were provided with different topics related to Biology. In addition, they were given a period of seven weeks to work on their various projects. Subsequently, students were post-tested on their collaborative participation skills after they finished their various projects. Consequently, interviews were conducted to reflect on students' perceptions of the use of collaborative projects to understand certain content of the selected foundational modules.

3.2. Different Stages of the Projects

The current projects consist of three steps, which are (1) the planning stage, (2) the implementation stage, and (3) the creation of the product [30]. The initial step is about planning, and it requires discussions between students and lecturers regarding the scope and content of the project [31]. Primarily, the purpose of the study was clearly outlined

before the commencement of the project [31]. Four different talents—talk shows, poetry, singing, and drama—were identified for the project. The second step was the implementation phase which assisted students to work on their different tasks for the projects. In this case, lecturers were available to provide guidance in times when challenges arose, and support and monitor the progress to enhance students' learning. At this stage, projects were structured to accommodate the exploration of the topics through various tasks which included script writing, songwriting, poem writing, information compiling, and a series of rehearsals. Moreover, the lecturers assisted students with challenges; for example, the lecturers intervened whenever the students could not reach a consensus or when the students required more clarity on aspects of the projects.

To conclude the projects, students were granted the opportunity to perform their projects in approximately 25 min per group. Students demonstrated their understanding of the content and concepts through the use of talents in the presence of the lecturers and peers. Conveyance of academic content understanding through various talents is beneficial to students in a variety of ways: English-speaking skills reinforcement, self-confidence development or improvement, and mastery of the content [32]. Furthermore, feedback based on proper usage of the English spoken language, improper usage of the English spoken language, and mastery of the biology content were provisioned.

3.3. Research Tools

The results of this study emerged from the use of two instruments: participation observation (wherein the spoken English of participants was evaluated) and narrative inquiry (wherein semi-structured interviews were conducted to obtain the students' perceptions on the directives of the project-based learning focusing basically on singing, poetry, talk shows, and drama to promote their vocabulary and mastery of biological content [31].

3.4. Data Analysis

The descriptive and statistical analyses were used to analyse students' reflections. In this case, the descriptive and statistical analysis includes frequencies and percentages of students' responses. Microsoft Excel 5.0/95 was used to generate the graphical interpretation of the collected data.

3.5. Ethical Considerations

Explicit explanations of the purpose, objectives, and significance of the project guided all the students enrolled in the two foundational modules to participate in this survey. In this study, ethical approval was not required as the participants were students enrolled in the course. Moreover, informed consent was sought prior to students' participation in this study. Therefore, participation in this study was voluntary and students were at liberty to withdraw from the research at any time without any direct or indirect implication to the study or their enrolled course.

4. Results

The findings of this study emerged from the four different talents used to explore innovative and creative strategies for fostering student engagement and collaborative learning. A total of ten questions about students' perceptions were evaluated to explore the benefits of project-based learning. Students used different talents to execute the project. A total of 71 students chose the appropriate talents, whereas 31 students indicated the inappropriate choice of talents due to the lack of space within those groups (Figure 1a). To expedite different talents, students played nine distinct roles that could be interchanged within each group amid their presentation. There was no static order on how each group and students were supposed to present their talent. It was within each group's discretion to choose which talent to employ to execute the project. Amongst the chosen talents, singing and acting roles were most preferred by most students and groups (Figure 1b).

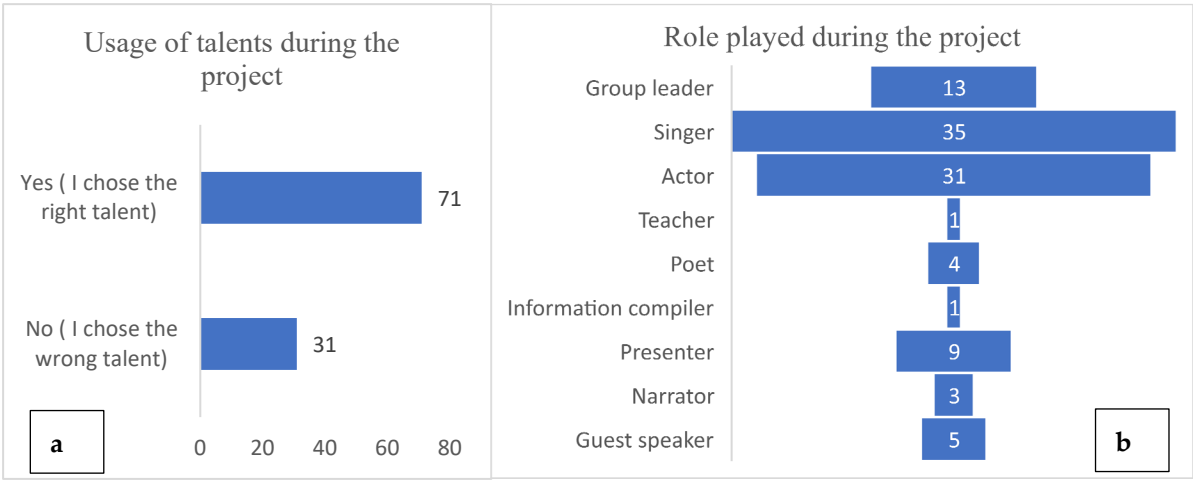


Figure 1. (**a**,**b**) Usage of diverse talents during the project presentation and role played during the project.

During the planning phase of the projects, students followed two approaches wherein 78 students used a four-way approach, and 27 students used a three-way approach (Figure 2a,b).

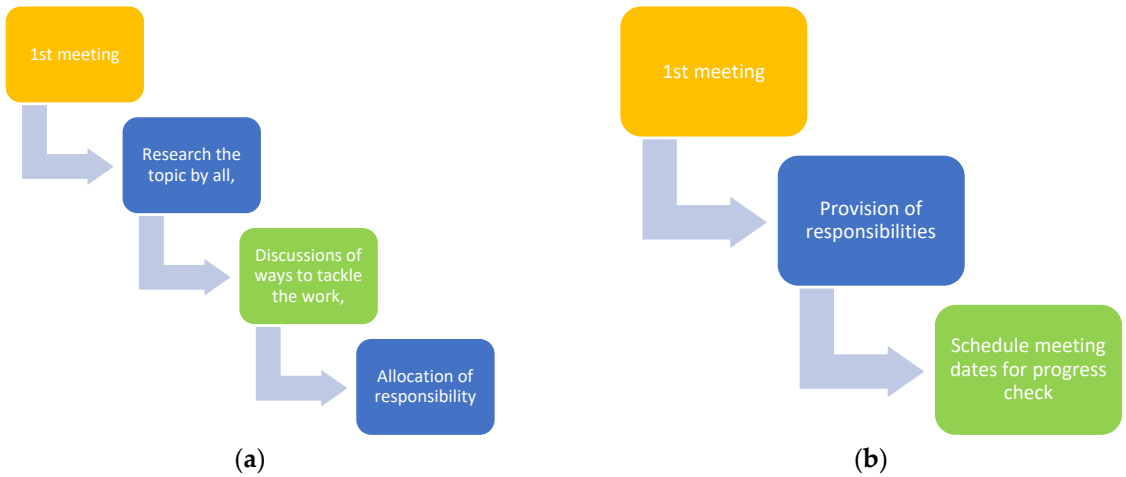


Figure 2. Allocation of responsibilities and evaluation of the progress within the groups. (**a**) Approaches and techniques for work allocation among the group members; (**b**) Monitoring and evaluating the progress among the group members.

Figure 2a,b above show the approaches followed by students when allocating different tasks to each group member to aid and ease the execution of the project. Although the allocation of tasks as per Figure 2a,b slightly differs, most students opted to do extensive research on the biology concepts embodied in the project. Thereafter, presentation formalities and responsibilities were allocated to individuals within the group. Moreover, Figure 2b shows that some students and their groups allocated responsibilities after their initial meeting and thereafter scheduled a meeting purposed to check the group's progress through individual tasks allocated.

Implementation of collaborative learning or project-based learning has some challenging aspects especially when the interaction is between peers. Various challenges attested from the activity include lack of self-confidence from some of the group members, conflicts among the group members, passive participation, lack of proper time management to execute the project, and lack of proper communication and usage of different mother tongues during planning or progress check meetings (Figure 3). Nevertheless, three meditative

mitigation strategies were put in place to promote a cooperative spirit and additional ways were adopted to avoid conflicts (Figure 4).

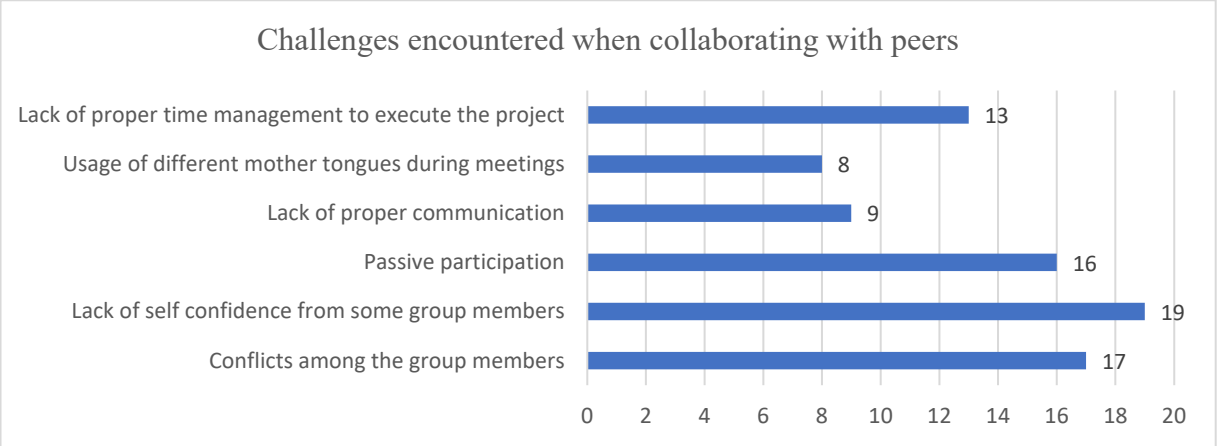


Figure 3. Challenges encountered when collaborating with peers in their respective groups.

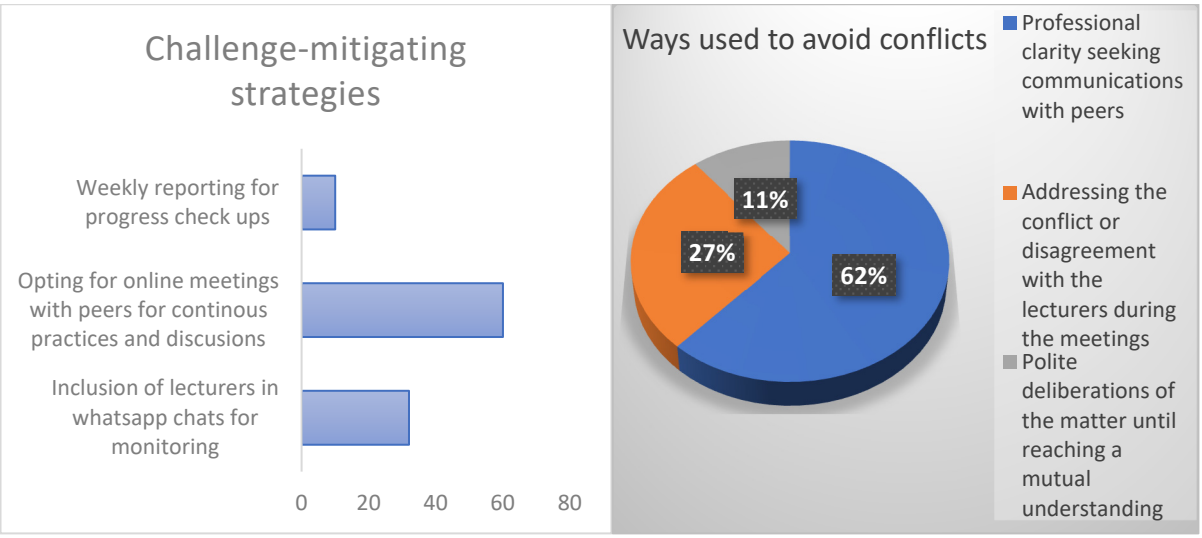


Figure 4. Challenge-mitigating strategies and ways adopted to avoid conflicts in distinctive groups.

In Figure 3, the students in their respective groups encountered challenges in the preparation of the project and constant meetings when working collectively which encompass lack of proper communication, usage of mother tongues during the meetings, passive participation, and so forth. All these challenges were impeding the progress of most of the groups as they were given these tasks for the first time without exposure prior to this project.

In Figure 4, the students appeared to have used their potential to perform various roles toward the completion of the projects. The results of this study indicated that a total of 89 students felt that members had equal and fair responsibilities to perform within their groups. On the other hand, 10 students attested that the responsibilities were not the same since group members performed dissimilar roles. On the contrary, only three students stated that some were reasonably given fewer responsibilities, whereas some were tasked with a high workload toward the completion of the projects (Figure 5).

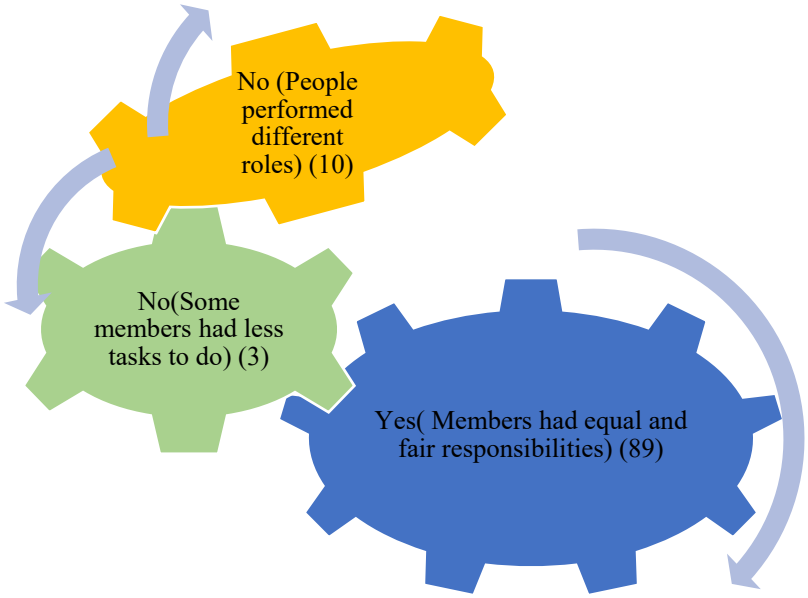


Figure 5. Distribution of responsibilities amongst group members.

Based on the results, students mentioned the development of collaborative skills, respect for peers' different opinions with an analytical mindset, and communication and management skills. Some students benefited from the overall activity by gaining a better understanding of the biological science concepts (Figure 6).

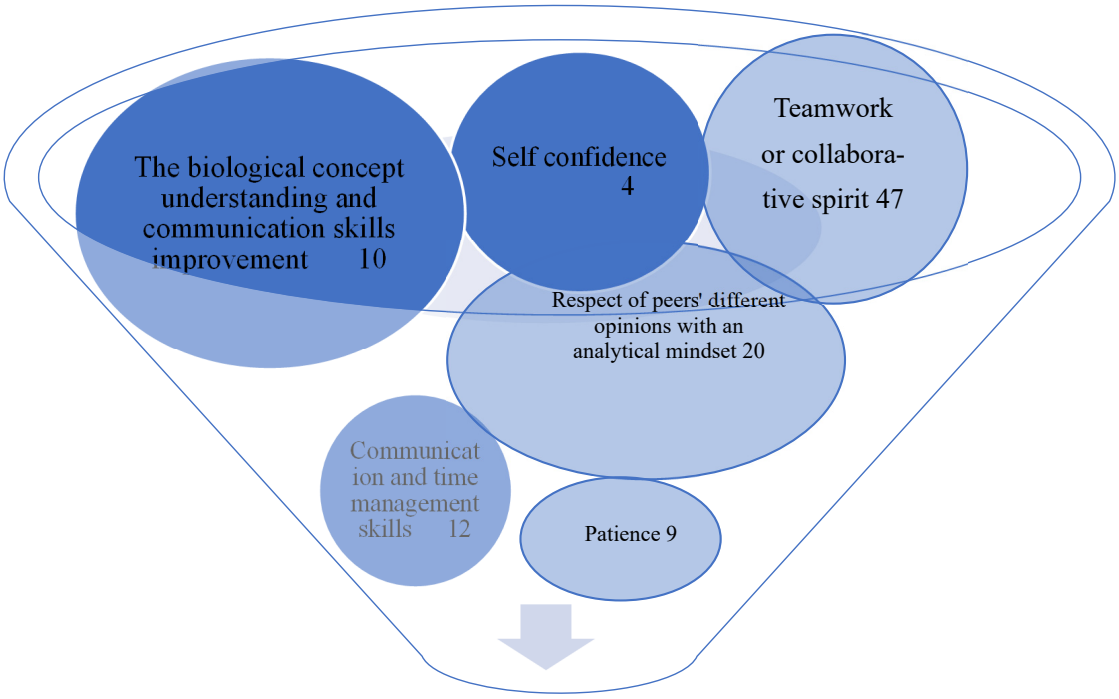
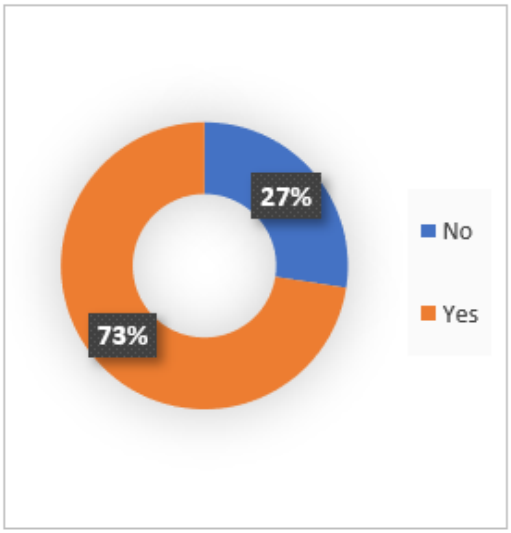


Figure 6. Lessons learned from the collaborative project.

The highest percentage, 73%, showed interest in embarking on a similar project because they found it to be a fast-learning method, collaboration enhancer, and self-esteem booster. Some students elucidated that they had fun and moreover found the activity to be more engaging and educative. A reasonable number of students indicated the significance of learning by doing, which increasingly instilled a better understanding of

the biological content knowledge and, furthermore, enhanced their communication skills. Contrastingly, the students (n = 28) were not in concurrence with previous testimonies as they felt pressurised when collaborating with passive team members and, as such, they preferred formal or individual assignments. On the same note, some students from this category mentioned that they were shy and therefore preferred to work alone (Figure 7).



Interest in embarking on a similar project in future	
No (Formal or individual assignments are suitable)	4
No (I am shy, and I am comfortable when working alone)	16
No (Some members are passive participants)	8
Yes (Fast learning method)	6
Yes (Collaboration enhances understanding and self-esteem booster)	10
Yes (Fun, engaging, and educative)	31
Yes (Learning by doing is the best)	9
Yes (Visual learning helps with a better understanding of the concept	18

Figure 7. Students' interests in embarking on similar projects.

5. Discussion

The collaborative learning space should inspire or propel students socially, mentally, emotionally, and intellectually depending on student type and motivation to learn.

5.1. Challenges Encountered When Collaborating with Peers

The findings of this study report conflict among the group members during the collaborative projects. The lack of self-confidence from some group members has been observed as a critical concern in various groups working on the task collaboratively. The students were not confident to play their roles on stage before the task's actual performance. The usage of different mother tongues during the meeting wherein Tshivenda, Tsonga, or Sepedi became the dominant medium of communication tended to disadvantage the speakers of other languages who could not understand the major points of discussion. The studies in retrospect are consistent with the observation of this study as Koivisto and Hamari [10] argued that linguiça franca exacerbates disagreement among the students. The study of Hornsby and Osman [1] reported this shortcoming, articulating that collaborative learning usually has conflicting ideas among the students which turn into argumentation in certain aspects of what is correct and what is not. On the contrary, passive participation in some groups was a major conundrum for the group leaders to monitor and evaluate the individual members' progress.

5.2. Students' Interests in Embarking on Similar Projects in the Future

The report indicated that 73% of the students were comfortable in executing this project in the future, while 27% of the students felt uncomfortable embarking on this project owing to the notion that their group members, were passive and reluctant to participate in their assigned tasks. Moreover, the students reported that collaborative projects are a fast and quick method for learning and knowledge acquisition. The students indicated that collaborative learning enhanced their understanding of complex and tricky course content. Significantly, learning by doing is the best as they were afforded the opportunity to use their talents to unleash untapped potential [4]. This is congruent with the study

of Laal and Ghodisi [26], who articulated that collaborative learning is quite beneficial in the co-construction of knowledge and finding deeper meaning in concepts through different viewpoints. Significantly, the students were hugely interested in participating in similar projects.

5.3. The Role Played during the Project

Some students acted as the group leaders in their respective teams to monitor and evaluate the progress of each member. Other students were expected to demonstrate their understanding of the content and concepts of the subject through music wherein the students played the role of Singers. This study is consistent with the findings of the study conducted by Oliveira et al. [6] on the use of active learning such as debates, role-plays, experiments, or simulations to make the learning experience more engaging. Subsequently, the students were afforded an opportunity to be actors and actresses. This was in congruence with the findings of the study by Stuart et al. [12] articulating that this can help students connect with the content on a deeper level. Fundamentally, the other groups opted to be Poets to use poetic devices and diction to strategically incorporate their skills and talents. Moreover, this shows the understanding of the content knowledge and practical application of some concepts in different contexts.

Consequently, the role-plays contribute prolifically to the student's learning and understanding of the concepts of the course in their assigned tasks which encompass Information Compiler, Presenter, Narrator, Guest Speaker, and so forth to create a meaningful learning experience. This study is validated by the findings of a study conducted by [16] which indicated and suggested a dynamic approach to establishing student involvement in the ongoing lesson.

5.4. Usage of Talents during the Project

Seventy-one (71) students indicated that they used their talents effectively in executing the project. This resonates with the study conducted by Metwally et al. [8], who articulated that the integration of student talents through gamifying assignments enhanced the student's understanding and performance in their courses. Thirty-one (31) students reported that they used their talents unsatisfactorily. This study is consistent with the study by Majurin et al. [9], who elucidate that the use of talents among the students enables them to have a sense of belonging in the institution through social engagement with their peers. Furthermore, the students were satisfied with the unprecedented experience of having social engagement in their mastery of difficult concepts of English and Biology. This is consistent with Mokganya and Zitha's [3] intervention strategies for leveraging the students' knowledge regardless of their educational backgrounds. This is to ensure that the decontextualisation among students from homogeneous backgrounds is mitigated. Moreover, this further strengthens engagement with students by enabling them to make deeper connections with those who have similar talents. Integrating talents into lessons can make them more creative and innovative and expedite the mastery of the content knowledge.

5.5. Approaches Followed by the Students When Allocating Different Tasks for the Execution of the Project

The approaches used by the students were to allocate different sections of the research topic to all members to expedite the project's completion and to each student conducting research on their specific allocated section(s). The findings of this study are congruent with Shi and Crist's [33] on the techniques employed by the students in their cooperative learning or group discussion to complete the project. The students scheduled meeting dates for the inspection of progress among the group members. The approaches suited the students who could not grasp the notion of the task [22]. Furthermore, this encouraged the students to work together in an innovative way through collaborative learning to reinforce student engagement.

5.6. Distribution of Responsibilities among the Group Members

The findings of the study elucidate that the students were assigned responsibilities among the group members. While ten (10) students performed distinct roles, three (3) students had fewer tasks to do. Consequently, eighty-nine (89) students had equal and fair responsibilities. Moreover, the students further reported that they were able to identify and monitor those who were either lazy or reluctant to work on their assigned tasks. This study is corroborated by the findings reported by Bai [11] who stated that the distribution of roles among the students brings about effective learning. Based on observation, this project ran smoothly as the group leaders in respective groups were constantly following up with the members who were not actively involved in the assigned task. In the same vein, the study of Kapp [25] reported similar changes with respect to impediments to student participation.

5.7. Lessons Learned from the Collaborative Project

The findings of this paper reported that the students were impressed by this collaborative and creative learning, and for some students, the project boosted self-confidence. This study is corroborated by another study which elucidated that the students tend to believe in themselves after their efforts and achievements. Teamwork or collaborative spirit; Effective communication and time management skills; patience; respect for peers' different viewpoints with an analytical mindset. Some studies are in support of the findings that this type of project enables students to understand the significance of peer-to-peer learning and group work [33].

Significantly, Giannakis and Bullivant [17] stressed that when students are comfortable and at ease with their learning and teaching methods, they are more likely to demonstrate the best quality of work. This is achieved via a collaborative engagement of innovative learning where students discussed, shared, and presented their ideas openly and freely whilst others constructively gave some insights for improvement and the betterment of the project. Suggestions and inputs are more informed by their firsthand experiences, research, and mastery of concepts during the project write-up. As such, in agreement with Giannakis and Bullivant [17], the students and lecturers' teaching and learning approaches and the desire to foster a positive classroom culture skewed to concept mastery are seminal ingredients in collaborative learning.

Moreover, when teaching in a classroom with various students' differences, students with greater attempts towards interaction, research, and collaboration show a noticeable difference in their written assignments in terms of content, mastery, and grades obtained. Through collaborative learning and gamification, the deployment of various forms of communication (discussions, presentations, debates, and write-ups) by students within the classroom and in their respective collaborative groups improves the quality of their final work and aids toward the development of topics, subtopics, and concepts mastered by each student within their groups. This approach of collaborative learning by students satisfies many important lecture objectives, goals, and pacing of the syllabus, leaving more time for learning, and mastering some of the troublesome threshold concepts.

6. Conclusions

In conclusion, the study's purpose was to explore innovative strategies for fostering student engagement and collaborative learning among first-year students. This paper discovered that the strategies that have the potential to address the concerns and challenges pertaining to disengagement and lack of interest in complicated concepts may be mitigated through the integration of talents and project-based learning among struggling students.

The key findings of this paper illuminate the use of innovative strategies that inculcate harmonious involvement and active engagement among students as they master fundamental concepts and subject content through a collaborative learning strategy in place. The challenges observed in this study, particularly in terms of student self-confidence and language barriers, align with Vincent Tinto's theory of social integration, thereby highlighting the importance of social factors in educational persistence. In addition, the

student-centered pedagogical approach and integration of talents, role-plays, and collaborative learning yielded positive results among the students in their learning and acquisition of subject concepts.

Conversely, collaborative learning and active learning are imperative in establishing a deep scholarship. Three meditative mitigation strategies were employed to address challenges such as lack of self-confidence and passive participation. Subsequently, they should be perceived as fundamental techniques to teaching in universities and colleges given the demands placed on students in the broader sense of life. Establishing collaboration and fostering active learning can enhance many positive results in student performance and can usually be understood in a fleeting period of time. It is imperative for lecturers to set the standard and pace for student engagement as expeditiously as possible in a class, bridge the student-lecturer divide, and empower students with a sense of agency over their own learning.

Since students share a common learning space, they should feel a sense of common engagement, a sense of harmonious involvement, and co-construction of knowledge instead of remote participation among their peers. Furthermore, the learning environment is a shared space as much as the activity that occurs in it is a shared experience. As such, lecturer-led participation and teaching should be initiated and established in concurrence with this perception, connecting students as assets to uplift the essentiality of what is already occurring in the higher learning space.

7. Implications and Recommendations

This study has the following implications and recommendations for lecturers should provide context and conditions where students can confidently learn among their peers. Educators should consider integrating multimedia tools like interactive whiteboards to make lessons more engaging and visually stimulating. There is a need to incorporate technology tools, and multimedia resources to make the learning experience more interactive and visually appealing to the students. The study concludes that project-based learning significantly enhances student engagement, particularly when students can leverage their unique talents. lecturers should create a positive and inclusive classroom environment where students feel comfortable expressing their opinions, asking questions, and engaging in discussions. There should be room for building rapport with students and creating a sense of belonging which can contribute to increased interest. Academics should encourage students to work together on projects and assignments as collaboration can foster engagement and provide opportunities for peer learning and support. Students should be provided with timely and constructive feedback on their work, highlighting their strengths and areas for improvement. Giving students a sense of ownership should be encouraged to ensure that they increase their investment in the course.

Author Contributions: Conceptualization, I.Z. and G.M.; methodology, O.S.; software, O.S.; validation, I.Z. and G.M.; formal analysis, I.Z.; investigation, G.M., O.S and I.Z.; resources, I.Z.; data curation, I.Z.; writing—original draft preparation, I.Z.; writing—review and editing, I.Z.; visualization, G.M.; supervision, I.Z.; project administration, I.Z.; funding acquisition, I.Z., G.M. and O.S. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Ethical approval was not required for this study according to Chapter 13 of the Research Ethical Standard Policy of the University of Venda (https://www.univen.ac.za/docs/Chapter%2013%20Research%20Ethical%20Standard%20Policy.PDF).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: All data supporting this manuscript have been made available. All data generated or analysed during this study are included in this article.

Conflicts of Interest: The authors declare no conflict of interest.

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