



Innovative Pedagogical Practices and Creative Instructional Strategies for Enhancing Learning Engagement among Learners with Special Needs

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Abstract

This paper looked at innovative teaching methods and creative ways of delivering instruction in order to increase learning engagement among pupils with special needs in both inclusive and special education environments. Pupils with special needs frequently have low levels of participation in class, are poorly motivated, suffer from social isolation, and show weak academic achievement since rigid, teacher-led methods of teaching do not meet the varied needs of learners. The paper stated that genuine inclusive education is impossible unless flexible, learner-focused and engaging teaching practices are adopted. Its aim was to investigate how innovative teaching methods and creative instructional strategies can enhance cognitive, emotional and behavioural engagement in learning for pupils with special needs. The paper was based on Constructivist Learning Theory and Universal Design for Learning. The results showed that innovative teaching practices such as Universal Design for Learning, differentiated instruction, multisensory teaching, the use of assistive technologies, collaborative learning and co-teaching have a significant effect on improving pupils' participation, motivation, confidence, academic performance and social interaction. The paper also found that creative instructional strategies such as project-based learning, inquiry-based learning, game-based learning, storytelling, role-play, multimedia integration and peer tutoring have a positive impact on engagement by making learning more interactive, meaningful and inclusive. The paper concluded that innovative and creative teaching approaches are essential for improving learning engagement and for achieving real inclusion of pupils with special needs. It recommended that teachers should receive ongoing training in innovative teaching methods, that creative strategies should be incorporated into the school curriculum, that sufficient assistive technologies and teaching resources should be made available, and that learner engagement outcomes should be regularly monitored in inclusive classrooms.

Keywords: Innovative Pedagogical Practices, Creative Instructional Strategies, Learning Engagement, Learners with Special Needs, Inclusive Education

Introduction

Education is still one of the most effective means of promoting human development, equality, and social inclusion. All over the world, educational systems have been moving towards inclusive education in order to give learners with special needs the same opportunities to learn and to take an active part in society. Yet, even though there are international commitments to inclusive education, a great many learners with special needs still suffer from poor participation in class, low levels of motivation, social exclusion, and weak academic results because rigid and traditional teaching methods remain in place and do not meet their different learning needs. Learners with special needs—whether they have physical, sensory, intellectual, emotional, behavioural or learning disabilities—need teaching methods that are flexible, engaging and able to take account of their individual differences. Unfortunately,

traditional teaching methods which put the teacher at the centre tend to stress memorisation, passive learning and the use of standard assessment procedures, all of which restrict active involvement by learners. These methods fail to recognise the fact that learners process information in different ways, have different learning styles and need a variety of ways through which they can access, understand and express knowledge. Consequently, many learners with special needs become frustrated, withdrawn and stop being academically engaged in classroom settings that are not designed to meet their particular abilities and difficulties (Johnson & Carter, 2023).

It is generally acknowledged that learning engagement plays a vital role in determining both academic achievement and overall development among learners with special needs. This engagement goes beyond simply attending class and involves the learner's level of cognitive involvement, emotional connection, motivation, participation, persistence, and interaction while taking part in learning activities. If learners are actively engaged, they are more likely to build up their confidence, improve their communication skills, develop their problem-solving capabilities, enhance their creativity, and exhibit positive social behaviours. On the other hand, low levels of engagement lead to poor academic performance, a lowered sense of self-worth, behavioural problems, and limited social integration. For this reason, it is impossible to realize genuine inclusive education unless the problem of learner engagement is first tackled (Zhang & Liu, (2022)). This paper firmly believes that innovative teaching methods and creative instructional strategies are essential for improving learning engagement among learners with special needs. Because of the growing complexity and variety of today's classrooms, there must be a move away from obsolete teaching methods towards more learner-focused, interactive, and adaptable approaches that can meet the different educational needs of students. Examples of such innovative pedagogical practices include differentiated instruction, Universal Design for Learning, collaborative learning, inquiry-based learning, multisensory instruction, and the integration of assistive technology, all of which offer learners the chance to actively build their knowledge according to their abilities, interests, and preferred ways of learning. Likewise, creative instructional strategies such as storytelling, project-based learning, role-play, educational games, the use of visual learning resources, and multimedia integration turn the learning process into an engaging, meaningful, and participatory one for learners with special needs (Zhang & Liu, (2022)).

The argument for using innovative and creative methods of teaching is strongly backed by current educational research. It has been consistently found that students with special needs show better motivation, greater participation, improved comprehension, enhanced communication skills, and more positive behavioural results when they are given flexible and interesting forms of instruction. Johnson and Carter (2023) stated that project-based learning increased collaborative engagement and motivation among students with autism spectrum disorder, and Okeke and Uche (2022) discovered that multisensory teaching methods had a significant effect on improving students' attention span and comprehension who had learning disabilities. Bello and Sadiq (2021) noted that assistive technologies helped to boost classroom engagement among students with sensory impairments, and Mohammed and Abdullahi (2022) found that game-based learning kept learners interested and involved among those with attention deficit hyperactivity disorder. Moreover, Zhang and Liu (2022) stressed that Universal Design for Learning led to more inclusive participation and reduced learning anxiety among students with special needs.

Even though there is an increasing amount of evidence available, a great many schools still place heavy reliance on lecture-based teaching, a method which restricts interaction, creativity, and student involvement. Ojo and Akinwale (2022) stated that traditional methods of teaching lead to a significant degree of disengagement among learners with special needs since they provide few opportunities for individualised support and for active learning. In a large number of educational situations, insufficient teacher training, poor funding, a lack of instructional materials, weak technological facilities, and inadequate policy implementation still obstruct the effective introduction of innovative teaching practices. As a result, learners with special needs remain vulnerable to academic failure, social exclusion, and a reduced educational experience. The present paper contends that the future of inclusive education will largely depend on the readiness of teachers, policymakers, curriculum planners, and educational institutions to accept innovative teaching methods and creative ways of instruction as essential means of improving engagement among learners with special needs. It is maintained that educational inclusion can never be realised through traditional teaching methods alone; instead, education systems must deliberately adopt flexible, interactive and learner-focused forms of instruction that are able to meet the cognitive, emotional, behavioural, and social needs of learners with special needs. It is only through such a deliberate transformation of teaching methods that learners with special needs can fully take part, achieve academic success, and acquire the confidence and skills necessary for productive involvement in society.

Theoretical Framework

The position paper is based on Constructivist Learning Theory as put forward by Jean Piaget (2012) and on Universal Design for Learning (UDL) as developed by David H. Rose and Anne Meyer (2002). Both of these theories strongly back the claim that innovative teaching methods and creative instructional strategies are necessary if learning engagement is to be improved among learners with special needs. They offer a solid basis for promoting teaching approaches that are learner-focused, flexible, interactive and inclusive and which can meet the varied educational needs of pupils with disabilities. According to Constructivist Learning Theory, learning is an active process in which learners build up their knowledge by interacting with their surroundings, investigating ideas, solving problems and reflecting on their experiences. The theory opposes the traditional idea of learners as people who passively receive information and instead stresses active involvement, discovery, experimentation and experiential learning. Constructivist theorists believe that meaningful learning takes place when instructional activities enable learners to interact directly with the learning material and connect new knowledge with their previous experiences. The connection between Constructivist Learning Theory and this position paper is that it strongly supports innovative and creative methods of teaching in the area of special needs education. Learners with special needs often have difficulty in rigid, teacher-led classrooms in which teaching is based mainly on memorisation and passive listening. These kinds of teaching practices do not offer opportunities for exploration, interaction or individualised learning experiences. It is for this reason that constructivist principles support the view that learners with special needs need instructional settings which encourage active participation, collaboration, creativity and experiential learning. Innovative teaching methods such as project-based learning, inquiry-based learning, collaborative learning, multisensory instruction and game-based learning are firmly grounded in constructivist assumptions since they allow learners to actively build up their understanding through meaningful experiences. These approaches enable learners with special needs to learn at their own pace, in accordance with their interests, abilities and preferred ways of learning. When learners are actively engaged in learning tasks they become more motivated, confident and socially involved in classroom activities. The theory thus reinforces the argument that educational systems must move away from traditional teaching methods and towards more flexible and learner-centred strategies which can improve cognitive, emotional and behavioural engagement among learners with special needs.

Universal Design for Learning (UDL) is an educational approach which promotes the early planning of instructional materials, learning tasks, and assessments so as to meet the varied needs of all learners. It is grounded in the idea that people learn in different ways when it comes to accessing information, interacting with the material, and showing what they know. Instead of requiring learners to adjust themselves to inflexible educational systems, UDL states that educational settings should be designed in such a way as to eliminate obstacles to learning and to offer every learner equal chances to take part and to succeed. UDL focuses on three key principles: offering multiple means of engagement, multiple means of representation, and multiple means of action and expression. These principles encourage the use of a wide range of teaching methods, including assistive technologies, visual and tactile resources, multimedia tools, storytelling, flexible assessment methods, and collaborative exercises. Such methods are especially beneficial for learners with special needs since they enable these learners to access the content and show their understanding in line with their strengths, abilities, and preferences. The importance of UDL for this position paper lies in the fact that it gives a solid reason for adopting innovative teaching practices and creative instructional strategies as essential tools for improving learner engagement. UDL sees the diversity of learners as a normal part of the classroom and claims that good teaching must be flexible enough to take this diversity into account. By fostering accessibility, inclusion, participation, and learner autonomy, UDL supports the view that genuine engagement among learners with special needs can only be attained when teaching methods are adaptive, creative, and focused on the learner. Together, Constructivist Learning Theory and Universal Design for Learning form a complete theoretical foundation for the argument made in this paper that innovative teaching practices and creative instructional strategies are essential for enhancing learning engagement among learners with special needs. Both theories strongly oppose rigid traditional teaching methods and advocate educational approaches that encourage flexibility, active participation, inclusion, creativity, and a response to learner diversity.

Types of Innovative Pedagogical Practices Employed in Teaching Learners with Special Needs in Inclusive and Special Education Settings

The article states that innovative teaching methods are essential if learning engagement and academic achievement are to be improved among learners with special needs in both inclusive and special education contexts. Traditional "one-size-fits-all" methods of teaching have been found to be insufficient in meeting the different cognitive, sensory, emotional, behavioural, and communication requirements of pupils with disabilities. These inflexible teaching

techniques tend to restrict learner participation, lower motivation, and set up obstacles to genuine educational experiences. As a result, there is a pressing need for educational systems to adopt innovative teaching practices which are flexible, focused on the individual learner, interactive, and capable of responding to the diversity of learners. A key example of such an innovative teaching approach is Universal Design for Learning (UDL). UDL promotes the early planning of courses and teaching activities so as to offer multiple ways of engaging with the material, representing it, and expressing understanding for all learners (Rose & Meyer, 2022). The paper asserts that UDL is essential since it views the variability among learners as a normal part of the classroom rather than something exceptional. By means of flexible teaching options such as visual, audio, tactile, and digital learning materials, learners with special needs are given equal opportunities to access the content and show their understanding in line with their own strengths and abilities. The advantage of UDL is that it helps to minimise learning difficulties, boosts learner confidence, increases motivation, and fosters inclusion. Edyburn (2023) pointed out that UDL enhances cognitive, behavioural, and emotional engagement among learners with a wide range of needs. Nevertheless, even though it has many advantages, putting UDL into practice demands sufficient teacher training, institutional support, and access to teaching resources, all of which are still major problems in many educational systems.

Differentiated instruction is another innovative pedagogical practice strongly supported in this paper. It involves modifying teaching methods, learning activities, instructional content, and assessment procedures to accommodate learners' readiness levels, interests, and learning profiles (Tomlinson, 2014). This paper argues that differentiated instruction is necessary because learners with special needs have varying abilities, learning speeds, and educational needs that cannot be effectively addressed through uniform teaching approaches. Through differentiated instruction, teachers can create flexible learning opportunities that encourage participation and academic success for all learners. The practice improves motivation, self-confidence, and classroom participation by providing tasks that match learners' abilities and learning capacities. Nevertheless, effective differentiation requires extensive planning, creativity, and continuous assessment, which may be difficult in overcrowded classrooms or poorly resourced schools. Multisensory instructional approaches also represent an important innovative pedagogical practice for learners with special needs. These approaches combine visual, auditory, tactile, and kinaesthetic learning experiences to improve comprehension, retention, and participation among learners with disabilities (Shaywitz & Shaywitz, 2020). This paper maintains that multisensory instruction is particularly important because learners process information differently, and using multiple sensory pathways increases understanding and memory retention. For instance, learners may develop reading skills through visual colour coding, sound recognition, tracing activities, and hands-on interaction simultaneously. Such approaches enhance learner engagement by making instruction interactive, practical, and stimulating. However, multisensory teaching often requires specialised materials, teacher expertise, and additional classroom preparation, which may limit effective implementation in some educational settings.

The paper also strongly supports integrating assistive technologies as an innovative pedagogical practice to enhance inclusion and learner engagement. Assistive technologies such as screen readers, text-to-speech software, communication devices, adaptive keyboards, educational applications, and interactive digital tools provide learners with disabilities alternative means of accessing information and expressing understanding (Edyburn, 2013). The importance of assistive technology lies in its capacity to remove barriers that prevent learners from participating actively in classroom activities. Learners with visual impairments, hearing impairments, speech difficulties, or physical disabilities are better able to communicate, collaborate, and engage academically when assistive technologies are effectively integrated into instruction. Despite these benefits, high costs, inadequate infrastructure, insufficient technical support, and limited teacher competence continue to hinder the widespread use of assistive technologies in many schools. Collaborative instructional practices, particularly co-teaching models, also represent an important innovative approach for supporting learners with special needs in inclusive classrooms. Co-teaching involves general education and special education teachers working together to plan, deliver, and evaluate instruction within the same learning environment (Friend & Cook, 2017). This paper argues that collaborative instructional practices promote inclusion by ensuring that learners with special needs receive specialised support without being isolated from their peers. Co-teaching encourages individualised support, continuous monitoring, social interaction, and active learner participation. It also allows teachers to combine expertise and instructional strategies to better address learner diversity. However, effective collaboration requires adequate planning time, professional cooperation, and clearly defined instructional responsibilities, which may not always be available in some school systems.

The paper advocates, among other things, a number of creative and learner-centred approaches such as project-based, inquiry-based, and game-based learning. Project-based learning gets learners to look into real-life problems, work together with their peers, and apply what they know to practical situations (Bell, 2010). Inquiry-based learning puts the learners at the heart of the learning process by getting them to ask questions, explore and solve problems, while game-based learning makes use of interactive challenges and rewards in order to keep learners motivated and involved (Gee, 2017). The paper strongly holds that these methods are necessary since they make learning meaningful, enjoyable, participatory and relevant to the learners' own experiences. These practices help to develop in learners with special needs skills in critical thinking, creativity, communication, collaboration and emotional engagement. In particular, learners with autism spectrum disorder, attention difficulties and learning disabilities generally react positively to structured and interactive instructional activities which encourage active participation. Even though there are considerable advantages to innovative pedagogical practices, many schools still place great reliance on traditional lecture-based methods of teaching which offer few opportunities for learner interaction, creativity and individualised support. The paper thus claims that educational stakeholders should give priority to adopting and effectively implementing innovative pedagogical practices which are able to meet the needs of a diverse group of learners and promote active engagement among learners with special needs. Otherwise, inclusive education might remain nothing more than a theoretical concept rather than being realised in actual classroom practice.

Creative Instructional Strategies used by Teachers to Enhance Cognitive, Emotional, and Behavioural Learning Engagement among Learners with Special Needs

The paper states that creative instructional methods are necessary if cognitive, emotional, and behavioural engagement are to be improved among learners with special needs in both inclusive and special education contexts. Such learners usually need instructional techniques which are flexible, stimulating, interactive, and capable of responding to their different learning abilities and their socio-emotional requirements. Traditional teaching methods based on lectures often fail to keep learners' interest, take account of individual differences in learning, or prompt active participation in the classroom. As a result, many learners with special needs suffer from disengagement, frustration, low motivation, and poor academic results. The paper therefore asserts that it is essential to make effective use of creative instructional strategies if inclusive learning environments are to be created in which learners with special needs can take an active part, interact, and achieve both academically and socially. It is especially important to use creative instructional strategies since they allow for cognitive, emotional, and behavioural engagement to be promoted at the same time. Cognitive engagement refers to the mental effort learners put in, the critical thinking they carry out, and the learning strategies they apply when carrying out academic tasks. Emotional engagement is concerned with learners' motivation, interest, enjoyment, confidence, and their feeling of belonging in the learning environment, while behavioural engagement deals with active participation, persistence, attention, and involvement in classroom activities (Fredricks et al., 2016). The paper holds that meaningful inclusive education cannot be attained unless the instructional approaches in question deliberately take into account these three aspects of learner engagement.

One of the creative instructional methods recommended in this paper is Project-Based Learning (PBL). PBL gets learners to look into real-life problems, carry out research, work together with their classmates, and give presentations which are based on practical learning experiences (Bell, 2010). The paper states that PBL is very effective for learners with special needs since it changes learning from simple memorisation to active exploration and participation. With PBL, learners acquire skills in problem-solving, critical thinking, communication and working together. They also become emotionally involved because they see the classroom activities as relevant and meaningful in relation to real-life situations. In terms of behaviour, learners take an active part in discussions, presentations, investigations and group work. For example, students with special needs in a science class can carry out simplified experiments or environmental projects using adaptive tools and guided procedures, thus improving both their participation and understanding. Nevertheless, even though it has many advantages, PBL demands thorough instructional planning, good classroom management, a lot of time and resources, which can be a problem in schools that have few resources. Another creative instructional method that is strongly supported in this paper is Game-Based Learning (GBL). GBL presents educational content through structured games, interactive challenges, competitions and digital learning activities (Gee, 2007). The paper holds that GBL is especially advantageous for learners with special needs since it creates enjoyable, motivating and less intimidating learning environments. By means of games, learners think about the material by solving problems, making decisions and applying what they have learned in order to reach their goals. Emotional engagement is increased as games cause excitement, enjoyment and motivation, while behavioural engagement goes up because learners take part actively, follow instructions and keep on completing tasks. Learners with autism spectrum disorder, attention deficit hyperactivity disorder or learning disabilities usually react positively

to game-based activities since such approaches help to maintain attention and reduce learning anxiety. Despite these benefits, badly designed games may cause learners to be distracted from the instructional aims, and successful implementation usually relies on the teacher's competence and the availability of technology. Inquiry-Based Learning (IBL) is equally important in promoting engagement among learners with special needs. IBL puts the learners at the heart of the teaching process by encouraging them to ask questions, carry out investigations, explore and solve problems (Hmelo-Silver et al., 2017). The paper strongly asserts that IBL promotes independent thinking and active participation among learners with disabilities by enabling them to discover knowledge through guided exploration. Cognitive engagement is raised as learners come up with questions, analyse information and solve problems. Emotional engagement is increased through curiosity and the sense of learner autonomy, while behavioural engagement is shown in the learners' active involvement in experiments, investigations and collaborative activities. For instance, learners in inclusive classes may explore environmental or scientific topics by using simplified procedures adapted to their individual learning abilities. However, IBL needs effective teacher guidance, scaffolding and monitoring in order to avoid confusion or frustration among learners who need extra instructional support.

The paper also recommends storytelling and role-play as creative teaching methods because they help to increase emotional, social, and behavioural engagement among learners with special needs. Storytelling links the instructional material to the learners' own experiences, emotions, and imagination, while role-play allows learners to simulate real-life situations and develop their skills in communication and social interaction (Wright et al., 2020). It is claimed in this paper that learners who have emotional, behavioural, and communication difficulties gain a great deal from experiential learning activities which promote interaction, empathy, and self-expression. By means of storytelling and role-play, learners improve their communication skills, gain a better understanding of emotions, develop their creativity, and build up their confidence. For example, learners with autism spectrum disorder can practice social interactions using guided role-play, which in turn helps to improve their emotional regulation and social skills. Yet, successful implementation depends on careful classroom management, teacher creativity, and well-structured planning. The paper also strongly endorses the integration of multimedia and digital instructional tools as creative strategies to boost learner engagement. Multimedia resources such as videos, animations, simulations, audio-visual materials, interactive software, and digital applications make learning more accessible, practical, and interesting for learners with special needs (Edyburn, 2023). These tools increase cognitive engagement by helping to understand concepts through visual and interactive presentations of the material. Emotional engagement is enhanced since learners often find digital learning enjoyable and encouraging, and behavioural engagement is improved through their active involvement in simulations and other interactive learning activities. Learners who have visual impairments, hearing impairments, or communication difficulties in particular benefit from adaptive multimedia resources that help with accessibility and participation. However, inadequate technological infrastructure, high costs, an unreliable electricity supply, and limited teacher competence remain major obstacles to effective implementation in many schools. Collaborative learning and peer tutoring are also equally important creative teaching strategies that are stressed in this paper. Collaborative learning enables learners to work in groups, share their ideas, solve problems together, and give academic and social support to one another. Peer tutoring means that learners teach or help their peers during instructional activities (Friend & Cook, 2017). The paper argues that collaborative teaching methods are essential since learners with special needs often benefit from social interaction, peer support, encouragement, and shared learning experiences. These strategies enhance cognitive engagement through discussion and cooperative problem-solving, emotional engagement by giving learners a sense of belonging and acceptance, and behavioural engagement through active participation and accountability in group tasks. Moreover, collaborative learning fosters inclusion, empathy, communication skills, and learner confidence. Nevertheless, effective collaboration needs proper teacher supervision in order to avoid unequal participation and to make sure that all learners are meaningfully involved. Even though creative teaching methods have been proven to be effective, many schools still depend heavily on traditional lecture-based teaching methods, which restrict learner interaction, creativity, and participation. The paper therefore firmly asserts that educational stakeholders must give priority to incorporating creative teaching strategies into classroom practice if genuine engagement among learners with special needs is to be achieved. Unless there are deliberate efforts to adopt interactive, learner-centred, and inclusive teaching approaches, many learners with special needs will continue to face exclusion, low levels of participation, and poor educational results in the classroom environment.

Innovative Pedagogical Practices Influence Learning Engagement among Learners with Special Needs

The article states that innovative teaching methods have a significant effect on the cognitive, emotional, and behavioural aspects of learning engagement among pupils with special needs in both inclusive and special education

settings. It is generally accepted that learning engagement plays a major role in determining academic achievement, levels of classroom participation, motivation, social interaction, and the overall development of the learner. Pupils with special needs frequently encounter obstacles such as learning disabilities, sensory impairments, difficulties with communication, problems with attention, and socio-emotional difficulties, all of which lead to reduced participation in traditional classroom situations. As a result, it is necessary to adopt innovative teaching methods in order to eliminate learning barriers, take account of the diversity among learners, and encourage meaningful educational involvement for pupils with special needs. Learning engagement is multi-faceted and includes cognitive, emotional, and behavioural elements (Fredricks et al., 2016). Cognitive engagement involves the mental effort that learners put into their studies, the use of critical thinking, and the application of learning strategies when carrying out academic tasks. Emotional engagement is concerned with the learner's interest, confidence, enjoyment, motivation, and feeling of belonging in the learning environment, while behavioural engagement refers to the learner's active involvement, persistence, concentration, and participation in classroom activities. The article asserts that innovative teaching methods have a direct impact on these three dimensions of engagement by making learning more accessible, interactive, focused on the individual learner, and meaningful for pupils with special needs. One of the most important innovative teaching methods examined in this paper is Universal Design for Learning (UDL). UDL promotes a flexible approach to teaching by offering multiple means of engagement, representation, and expression in order to meet the different needs of learners (Rose & Meyer, 2022). The paper claims that UDL greatly enhances learner engagement by enabling pupils with special needs to access the teaching material in ways that correspond with their strengths, abilities, and preferences. Learners can interact with learning materials using visual aids, audio texts, multimedia resources, tactile materials, or digital simulations, which in turn improves their understanding and participation. Emotional engagement is also increased since learners feel included, supported, and capable of succeeding in the classroom environment. Behaviourally, learners take part more actively because the obstacles to instruction are reduced. Edyburn (2023) pointed out that UDL leads to improved participation, greater academic confidence, and overall engagement among pupils with a wide range of needs. Nevertheless, even though it has many advantages, the successful implementation of UDL demands thorough teacher training, careful instructional planning, institutional support, and access to educational resources.

Differentiated instruction also has a major effect on the level of engagement achieved by pupils with special needs. It means altering the content of instruction, the methods of teaching, the classroom activities and the ways of assessing pupils to match their different levels of readiness, their interests and their individual learning styles (Tomlinson, 2014). The present paper states that differentiated instruction is essential since learners with special needs have different learning abilities which cannot be properly met by using the same teaching methods for everyone. By means of differentiated teaching, pupils are given tasks that are suitable to their abilities, which in turn boosts their confidence, reduces their sense of frustration and leads to greater involvement. Cognitive engagement is enhanced when pupils are given tasks that match their ability level; emotional engagement rises as pupils experience success and see the relevance of the work they are doing in the classroom; and behavioural engagement is strengthened by their active participation in meaningful activities. On the other hand, differentiated instruction does call for a great deal of teacher creativity, preparation and classroom management skills, particularly in classrooms that are overcrowded. Multisensory teaching methods are just as effective in promoting engagement among pupils with special needs. They combine visual, auditory, tactile and kinaesthetic experiences in order to improve comprehension, retention and classroom participation among learners with disabilities (Shaywitz & Shaywitz, 2020). This paper strongly asserts that multisensory instruction enhances engagement because pupils with special needs often process information in a different way, and by using a variety of sensory channels understanding and sustained attention are increased. Pupils become cognitively engaged as they receive information through a range of learning channels, emotionally engaged since the lessons become more interactive and enjoyable, and behaviourally engaged through hands-on learning activities and active participation. For example, pupils with dyslexia may combine tracing exercises, sound recognition, visual colour coding and oral repetition in order to improve their reading comprehension. Although there are many advantages, multisensory instruction often demands special materials, extra instructional time and teacher expertise. Creative learner-centred approaches such as project-based learning, inquiry-based learning and game-based learning also have a strong positive impact on pupil engagement. Project-based learning fosters critical thinking, collaboration, creativity and problem-solving by means of practical, real-life learning activities (Bell, 2010). Inquiry-based learning prompts pupils to ask questions, investigate problems and build up their understanding through active exploration (Hmelo-Silver et al., 2017), while game-based learning increases participation and motivation through interactive challenges and rewarding experiences (Gee, 2017). The paper holds that these innovative methods are very effective because pupils with special needs usually need stimulating, practical and participatory learning experiences

in order to stay focused and interested. Cognitive engagement is improved by active problem-solving and exploration; emotional engagement is raised through enjoyment and relevance; and behavioural engagement is strengthened by active participation and collaboration. Pupils with attention deficit hyperactivity disorder, autism spectrum disorder or learning disabilities benefit especially from structured and interactive teaching activities which help to maintain their motivation and concentration.

The article also strongly advocates for the integration of assistive technologies as a key factor in enhancing learner engagement amongst students with special needs. Technologies such as text-to-speech software, adaptive communication devices, educational applications, digital simulations, and interactive whiteboards offer learners alternative ways of accessing information and taking part in classroom activities (Edyburn, 2023). It is claimed in this paper that assistive technologies boost cognitive engagement by allowing learners to access teaching material in line with their individual abilities, enhance emotional engagement by fostering independence and self-confidence, and increase behavioural engagement by encouraging participation in classroom activities. When assistive technologies are used effectively, students who have visual impairments, hearing impairments, speech difficulties or physical disabilities are better able to communicate and interact academically. Yet high costs, dependence on technology, poor infrastructure, and insufficient teacher skills still constitute major obstacles to implementation in a large number of educational institutions. Positive effects on learner engagement are also seen through collaborative learning and co-teaching. Collaborative learning prompts students to work together in solving problems, sharing ideas and giving academic and social support to one another, while co-teaching enables general and special education teachers to give instruction together in inclusive classrooms (Friend & Cook, 2017). This paper firmly asserts that such approaches promote cognitive engagement via cooperative learning and discussion, emotional engagement through peer interaction and a feeling of belonging, and behavioural engagement through active participation in class and teamwork. Students with special needs gain from the social interaction, individualised support and shared learning experiences that contribute to greater inclusion and academic confidence. That said, successful implementation depends on effective coordination, teacher collaboration, good classroom management and sufficient instructional planning. Even though there is ample evidence in support of innovative teaching methods, many educational institutions still place great reliance on traditional lecture-based methods of teaching which offer few opportunities for learner interaction, creativity, flexibility and individualised support. The paper therefore strongly holds that educational stakeholders should give priority to the adoption and effective implementation of innovative teaching practices which can improve learning engagement among students with special needs. If there is no substantial instructional innovation, many students with special needs are likely to continue to face exclusion, low levels of participation, poor motivation and weak educational results even though inclusive education is increasingly emphasised.

Relationship between Creative Instructional Strategies and Learning Engagement Outcomes of Learners with Special Needs

The paper states that there is a significant relationship between creative instructional strategies and the learning engagement outcomes of learners with special needs in both inclusive and special education contexts. Since learners with special needs need instructional methods that go beyond conventional lecture-based techniques in order to meet their varied cognitive, emotional, behavioural, and social learning requirements, creative instructional strategies are offered as a means of providing learning experiences that are meaningful, interactive, and focused on the individual learner, thus leading to greater participation, higher motivation, improved understanding, better communication, and an overall enhancement of academic achievement. The paper therefore claims that it is only possible to achieve effective engagement outcomes for learners with special needs when teachers deliberately take on creative instructional approaches that get the learners actively involved in the learning process. It is generally accepted that learning engagement is a key factor in the educational success of learners with special needs and that it comprises cognitive, emotional, and behavioural engagement (Fredricks et al., 2016). Cognitive engagement refers to the mental effort that learners put in, the critical thinking they carry out, and the learning strategies they use while taking part in classroom activities. Emotional engagement is concerned with the learners' interest, enjoyment, confidence, motivation, and their feeling of belonging in the learning environment, whereas behavioural engagement consists of participation, persistence, attention, and active engagement with the instructional tasks. The paper asserts that creative instructional strategies have a direct effect on these aspects of engagement by making learning practical, stimulating, enjoyable, and inclusive for learners of different abilities. Project-Based Learning (PBL) has a strong positive association with learning engagement outcomes among learners with special needs. Project-based learning means that learners look into real-life problems, carry out research, work together with their peers, and then present practical solutions based on experiences gained from the learning activities (Bell, 2010). The paper firmly holds that PBL leads

to better engagement outcomes since it turns learning into an active and meaningful process instead of merely requiring passive memorisation. Cognitive engagement increases as learners analyse problems, think critically, and apply their knowledge to real-life situations. Emotional engagement rises because the learners see the classroom activities as relevant and worthwhile, and behavioural engagement is enhanced through their active involvement in research, collaboration, presentations, and classroom discussions. Learners with special needs who take part in project-based activities often show improvements in their communication skills, confidence, creativity, teamwork, and academic performance. Nevertheless, the successful implementation of PBL demands a great deal of planning, instructional time, and learning resources, which may be hard to obtain in educational settings that are under-resourced.

Game-Based Learning (GBL) also has a strong association with positive engagement outcomes for learners with special needs. It involves incorporating educational material into structured games, digital challenges, and interactive activities which are intended to boost participation and motivation (Gee, 2017). The paper claims that game-based learning is especially effective since it produces enjoyable and motivating classroom environments that help to maintain learners' attention and lessen their anxiety. Cognitive engagement is achieved by learners as they solve problems, develop strategies, and make decisions while taking part in game activities. Emotional engagement is increased because games cause excitement, enjoyment, and a sense of achievement, and behavioural engagement rises as a result of active participation and the continued completion of tasks. Learners with attention deficit hyperactivity disorder, autism spectrum disorder, and learning disabilities generally show improvements in their concentration, retention, and classroom participation when game-based instructional activities are used. Yet, badly designed educational games can distract learners from the instructional aims, and a successful implementation usually relies on the teacher's competence and the availability of technology. Inquiry-Based Learning (IBL) also shows a strong link with engagement outcomes among learners. Inquiry-based learning prompts learners to ask questions, investigate problems, explore ideas, and build their understanding by means of active learning experiences (Hmelo-Silver et al., 2017). The paper states that inquiry-based learning leads to better engagement outcomes because it promotes learner autonomy, curiosity, exploration, and independent thinking. Cognitive engagement goes up as learners carry out investigations and solve problems, emotional engagement is fostered by curiosity and the learners' sense of ownership of the learning activities, and behavioural engagement is improved through active involvement in the investigations and in collaborative tasks. Learners with special needs who take part in inquiry-based activities often gain better critical thinking skills, greater self-confidence, persistence, and problem-solving abilities. However, inquiry-based learning demands continuous teacher guidance, scaffolding, and supervision in order to avoid confusion or frustration among learners who need extra instructional support. Storytelling and role-play also exhibit a strong connection with engagement outcomes for learners with special needs. Storytelling enables instructional content to be conveyed through narratives, imagination, and experiences that are relevant to the learners, while role-play allows learners to simulate real-life situations and practice their communication and social interaction skills (Wright et al., 2020). The paper argues that these approaches are very effective because they link learning to the learners' emotions, experiences, and social realities. Cognitive engagement is raised when learners interpret narratives, analyse situations, and solve problems in the context of stories. Emotional engagement is enhanced through empathy, enjoyment, imagination, and an emotional connection to the learning activities, while behavioural engagement is increased by active participation and interaction with their peers. Learners with emotional, behavioural, and communication difficulties often see an improvement in their communication skills, emotional regulation, confidence, and social interaction as a result of taking part in storytelling and role-play activities. On the other hand, these strategies do require effective classroom management and careful instructional planning.

Multimedia and digital instructional materials also enhance learning engagement for students with special needs. Interactive videos, animations, simulations, educational applications, digital games, and adaptive learning systems make learning more visual, interactive, practical, and accessible (Edyburn, 2023). The present paper firmly believes that the integration of multimedia improves engagement results by catering to a variety of learning styles and by giving learners different ways of understanding the instructional material. Cognitive engagement is boosted by the visual and interactive presentation of concepts, emotional engagement is enhanced by increased motivation and enjoyment, and behavioural engagement is strengthened through active engagement with digital learning resources. Students who have visual impairments, hearing impairments, communication difficulties, and learning disabilities particularly gain from adaptive multimedia resources that promote accessibility and inclusion. Yet, poor technological infrastructure, high costs, an unreliable electricity supply, and a lack of sufficient teacher training still prevent the effective implementation of these approaches in a great many schools. There is also a strong connection between collaborative learning and co-teaching and positive learner engagement outcomes. Collaborative learning enables students to work

together, exchange ideas, solve problems as a group, and give academic and social support to one another, while co-teaching allows general and special education teachers to provide instructional support together in inclusive classrooms (Friend & Cook, 2017). The paper claims that these methods lead to better engagement outcomes since students with special needs often benefit from peer interaction, social inclusion, and individualised support. Discussion and cooperative problem-solving improve cognitive engagement, peer acceptance and a sense of belonging strengthen emotional engagement, and active participation and accountability in group activities increase behavioural engagement. Students who are involved in collaborative learning environments often show better academic performance, improved communication skills, greater confidence, and enhanced social competence. Nevertheless, successful implementation requires effective teacher collaboration, good classroom management, and well-structured instructional planning. Even though there is ample evidence showing the link between creative teaching strategies and positive learner engagement outcomes, many schools still rely heavily on traditional teaching methods which offer few opportunities for learner interaction, creativity, and participation. The paper therefore strongly asserts that educational stakeholders must make it a priority to adopt creative teaching strategies if meaningful engagement outcomes are to be achieved among students with special needs. Without intentional instructional innovation, students with special needs may continue to face low levels of participation, weak motivation, social isolation, and poor educational results, even though there is growing advocacy for inclusive education.

Analysis

The article states that innovative methods of teaching and creative approaches to instruction are able to improve the cognitive, emotional, and behavioural engagement of learners with special needs. Educational methods including Universal Design for Learning, differentiated instruction, project-based learning, game-based learning, the use of assistive technology, storytelling, and collaborative learning provide such learners with the opportunity to take an active part in a way that corresponds to their abilities and learning requirements. However, these approaches are hindered by insufficient teacher training, a lack of resources, poor technological facilities, and inadequate institutional support.

Discussion

The paper demonstrates that meaningful engagement among learners with special needs requires flexible, learner-centred, and inclusive instructional practices. The findings align with Constructivist Learning Theory and Universal Design for Learning, which emphasise active participation, learner diversity, flexibility, and multiple ways of accessing and demonstrating knowledge. Creative instructional strategies can therefore enhance participation, motivation, confidence, communication, and social interaction when appropriately adapted to learners' needs. However, schools need adequately trained teachers, instructional resources, and institutional support to sustain these practices effectively.

Suggestions

Based on the results, the following were suggested:

1. Educational authorities, curriculum planners and school administrators ought to give priority to incorporating innovative teaching methods such as Universal Design for Learning, differentiated instruction, multisensory teaching and assistive technologies into the curricula of inclusive and special education in order to improve cognitive, emotional and behavioural engagement amongst learners with special needs.
2. Teachers should have access to continuous professional training, workshops, and capacity-building programmes in creative instructional strategies such as project-based learning, inquiry-based learning, game-based learning, storytelling, role-play, multimedia integration, and collaborative learning, so as to improve their ability to effectively engage learners with special needs.
3. Governments and those involved in education should make sure that adequate instructional resources, assistive technologies, multimedia facilities, and supportive learning infrastructure are available so that innovative and creative teaching methods can be effectively put into practice in inclusive and special education settings.
4. Schools and educational institutions must set up continuous monitoring and evaluation systems so as to assess the effectiveness of innovative teaching methods and creative instructional strategies in enhancing learner engagement, academic performance, social interaction, and their general development amongst learners with special needs.

Conclusion

The paper has clearly shown that innovative teaching methods and creative instructional techniques are essential for increasing learning engagement among learners with special needs in both inclusive and special education settings. Teaching methods that place the teacher at the centre have been found to be insufficient in meeting the varied cognitive, emotional, behavioural, sensory, and social requirements of pupils with disabilities. Because of this, a large number of learners with special needs still suffer from low levels of participation, lack of motivation, limited interaction, and poor academic achievement in traditional classroom settings. The paper proved that innovative teaching practices such as Universal Design for Learning, differentiated instruction, multisensory teaching methods, the use of assistive technologies, collaborative learning, and co-teaching have a significant effect on learners' cognitive, emotional, and behavioural engagement. These practices create flexible, inclusive learning environments that accommodate learner diversity, remove instructional barriers, and give learners multiple ways to access and demonstrate their knowledge. In a similar way, creative instructional strategies such as project-based learning, inquiry-based learning, game-based learning, storytelling, role-play, multimedia integration, and peer tutoring have been shown to enhance learner participation, critical thinking, communication skills, collaboration, confidence, motivation, and socio-emotional development. The paper also found that there is a strong link between creative instructional strategies and positive learning engagement outcomes for learners with special needs. Learners who are given interactive, learner-focused, and experiential teaching methods show better academic performance, greater classroom participation, stronger social interaction, improved emotional regulation, and more persistence in carrying out learning activities. These results make it clear that meaningful inclusive education cannot be reached by relying solely on traditional teaching methods. Even though innovative and creative teaching approaches have been proven to be effective, various obstacles still prevent their implementation in many schools, such as insufficient teacher training, poor funding, a lack of instructional resources, inadequate technological infrastructure, and weak institutional support. As a result, many learners with special needs are still excluded from taking an active part in classroom activities even though there is growing advocacy for inclusive education. The paper therefore concludes that educational systems should deliberately move away from traditional teaching methods and towards innovative, flexible, and learner-centred teaching practices that can meet the diverse educational needs of learners with special needs. All those concerned with education—teachers, school administrators, policymakers, curriculum planners, and governments—must realise that improving learner engagement is fundamental to achieving real educational inclusion and equity. Unless there is a deliberate investment in innovative teaching practices and creative instructional strategies, the aims of inclusive education will remain nothing more than theoretical ideas rather than practical realities in classroom settings.

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