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A Critical Evaluation of Learning Theories

Introduction

Developing an understanding of how individuals learn is fundamental to the formation of effective pedagogy, shaping the ways in which curriculum is designed, delivered, and evaluated. Pedagogy can be broadly understood as the principles, strategies, and practices that underpin teaching and learning. It can be described as inherently theory-informed and context dependent. Central to this is the concept of learning itself, which may be broadly defined as a relatively permanent change in knowledge, skills, or behaviour, yet remains highly contested across educational theory (Ertmer and Newby, 2013). As such, the ways in which educators conceptualise learning directly influence the methods they employ, shaping how knowledge is structured, delivered, and experienced within the classroom. Learning theories, therefore, provide critical frameworks through which educators can interpret how learners acquire, process, and retain knowledge, informing strategies that support both engagement and progression. However, in the context of rapid social, technological, and cultural transformation, education must continuously evolve, raising questions regarding the ongoing adequacy of traditional learning theories (Doroudi, 2021). Additionally, contemporary classrooms are increasingly diverse, digitally mediated, and learner-centred, prompting critical consideration of how far established theoretical frameworks remain applicable to modern educational practice (Mahbub and Beedle, 2025). This highlights the need not only to understand learning theories, but to critically evaluate their assumptions, limitations, and relevance within contemporary educational contexts, recognising that pedagogy must remain responsive to the continually changing demands of education.

Historically, theories of learning have significantly shaped educational approaches, influencing both teaching methods and classroom environments. Behaviourist perspectives emphasise observable outcomes and measurable change, promoting structured and controlled approaches to learning (Doroudi, 2021). In contrast, Cognitivist approaches focus on internal mental processes, emphasising the importance of memory retention, schema development, and metacognition. Constructivist perspectives reframed learning as an active and learner-centred process, while Social Learning Theory

drew attention to the role of interaction, observation, modelling, and wider social context (Zajda, 2021; Giannoukos, 2024). However, these perspectives are not isolated, rather, they reflect differing priorities within the mechanisms of learning, with Behaviourist, Constructivist, and Social Learning approaches implicitly relying on innate Cognitivist processes in explaining how learning is internalised (Liu, 2024; Stewart, et al., 2021).

While each of these perspectives offer valuable insight into how learning occurs, they are underpinned by drastically differing assumptions regarding the nature of learning, resulting in varied and often contrasting approaches to teaching practice. As such, no single theory provides a comprehensive account of learning, particularly within the complex and evolving worldwide landscape of twenty-first century education.

Adopting the perspective of a reflective practitioner, this essay critically evaluates Behaviourism, Cognitivism, Constructivism, and Social Learning Theory, examining their strengths and limitations within contemporary teaching and learning contexts. Through sustained comparison and synthesis, the discussion will explore how these theories complement and challenge one another, while considering the extent to which some perspectives may offer a more foundational understanding of learning than others. In doing so, this essay aims to develop a critical and integrated view of pedagogy, recognising the importance of aligning teaching approaches with an informed understanding of how learners acquire and process knowledge, and the need for educators to make reflective, theory-informed decisions in response to diverse learning requirements.

The Nature of Learning

Understanding how learning is conceptualised forms the foundation of pedagogical decision-making, as differing theoretical perspectives offer contrasting explanations of how knowledge is acquired. Learning theories provide frameworks through which educators interpret how learners engage with, process, and retain information, shaping the strategies used to support engagement, progression, and classroom practice. Perspectives such as Behaviourism, Cognitivism, Constructivism, and Social Learning Theory have each contributed significantly to educational thought (Giannoukos, 2024; Wang, 2012). However, their relative explanatory power, real-world limitations, and

applicability vary, especially within contemporary, diverse, and digitally mediated learning environments. Considering these theories in relation to one another highlights both their complementary and conflicting assumptions about learning, while also suggesting that some offer a more foundational account of how knowledge is understood and retained in practice (Mahbub and Beedle, 2025; Doroudi, 2021). Central to this debate is whether learning is best understood as a change in observable behaviour or as a complex internal cognitive process.

Behaviourist approaches can be commonly associated with profound theorists such as B. F. Skinner (1953), John B. Watson (1913), and Ivan Pavlov (1927), the concept of Behaviourism positions learning as a quantifiable, measurable change in observable behaviour, which can be shaped through manipulation of external stimuli, reinforcement, and repetition. Within this framework, learning is highly structured and controlled by the educator, prioritising what can be objectively observed over the internal processes of the learner. This learning theory has had a lasting influence on pedagogical practice, particularly in the use of task sequencing, repetition, and reinforcement strategies to promote desired outcomes (Singh, 2020). Such structured approaches can provide clarity and consistency, especially for learners such as additional learning needs pupils, who require explicit guidance or predictable learning environments (Cranmore, 2022). However, the theoretical assumptions of Behaviourism have been subject to sustained critique, particularly in relation to their reductive conceptualisation of learning (Susetyarini, *et al*., 2024). By prioritising observable outcomes, Behaviourist approaches risk equating learning with performance, where the demonstration of correct responses is taken as evidence of understanding. This raises important concerns regarding the depth and quality of learning, as learners may successfully reproduce knowledge without developing the conceptual understanding required for knowledge transfer or its application in unfamiliar contexts. For instance, memorisation through repetition may support short-term recall, necessary for passing standardised assessments, yet fail to facilitate deeper cognitive processing or long-term retention. In this sense, Behaviourism offers a limited account of learning, as it neglects the internal mechanisms through which knowledge is interpreted, organised, and stored (Stewart, 2021).

Furthermore, the reliance on extrinsic reinforcement introduces important questions surrounding motivation. By conditioning learners to engage in tasks primarily for reward or avoidance of punishment, Behaviourist approaches may undermine intrinsic motivation and intellectual curiosity. This is particularly problematic in contemporary educational contexts, where critical thinking, independence, and deeper engagement are increasingly prioritised. As such, while Behaviourism provides a useful framework for understanding observable behavioural change and remains valuable in promoting structure and consistency, it offers an incomplete account of the nature of learning, as it fails to adequately explain how knowledge is best internally processed and meaningfully understood (Cook and Artino, 2016).

These limitations become more apparent when considered alongside Cognitivist perspectives, which shift the focus of learning from observable behaviour to the internal mental processes that underpin understanding. Emerging in response to Behaviourism, Cognitivism, influenced by theorists such as Jean Piaget (1970), Jerome Bruner (1966), and John Sweller (2023), positions learners as active participants who organise, store, and retrieve knowledge through mental schemas, memory systems, and metacognitive processes. This represents a fundamental reconceptualisation of the nature of learning, as it recognises that knowledge is not passively acquired, but actively processed and transformed by the learner. In classroom practice, this is demonstrated through strategies such as scaffolding, where educators provide structured support to help learners build understanding gradually (Bruner, 1966). For example, when introducing essay writing, an educator may initially show an example, then guide learners through paragraph construction before gradually withdrawing support to encourage independent application.

Within pedagogical context, Cognitivism has informed approaches that emphasise the organisation and sequencing of content in ways that best align with how learners process information. Strategies such as scaffolding, breaking down tasks into manageable components, and activating prior knowledge are commonly employed to support cognitive development and reduce cognitive overload. Cognitive Load Theory (Sweller, 2023), further reinforces this perspective, highlighting the limitations of working memory and the importance of structuring instruction to optimise learning. Where Behaviourism

focuses on observable compliance, Cognitivism provides a more comprehensive account of how understanding is acquired, making it central to lesson design, curriculum development, and the facilitation of meaningful learner engagement. From an educator's perspective, this positions Cognitivism as foundational to pedagogical decision-making, as without an understanding of how learners process and retain information, it becomes difficult to effectively implement Behaviourist, Constructivist, or Social Learning strategies in the classroom (Singh, et al., 2020; Kay and Kibble, 2016).

However, while Cognitivism offers a more comprehensive account of learning than Behaviourism, it has been criticised for conceptualising learning as an individualistic and largely decontextualised process. Constructivist perspectives, particularly those associated with Lev Vygotsky (1978), challenge this view by emphasising that learning is inherently social, occurring through interaction, collaboration, and cultural mediation. Central to this perspective is the notion that knowledge is co-constructed, rather than independently acquired, with learning taking place within what Vygotsky terms the "Zone of Proximal Development" (ZPD), where understanding is extended through guided support and interaction with others. In practice, this is reflective in collaborative and discussion-based learning environments, where learners engage with diverse perspectives and negotiate meaning collectively (Ness, 2023). For example, within classroom discussions, pupils are exposed to alternative interpretations and viewpoints, enabling them to refine, challenge, and extend their existing understanding through active discourse. This represents a significant shift from purely individual cognitive processing, highlighting the importance of social interaction in shaping knowledge construction (Akers and Jennings, 2015).

Similarly, as proposed by Albert Bandura and Walters (1977), the Social Learning Theory emphasises the role of observation, modelling, and interaction in the learning process. Within both classroom and wider social environments, learners acquire behaviours and knowledge through the observation and imitation of others, a process often described as "observational learning". This perspective establishes an important connection between Behaviourist and Cognitivist traditions, as learning involves both the observation of external behaviour and the internal processing required to interpret and replicate it. In pedagogical terms, this reinforces the importance of educator modelling, peer-to-peer

interaction, and collaborative learning environments in shaping learner behaviour and understanding (Liu, 2024; Coe, *et al*., 2014).

Despite these contributions, both Constructivist and Social Learning perspectives remain theoretically dependent on underlying cognitive processes. While interaction, collaboration, and observation can facilitate learning, they do not in themselves explain how knowledge is developed and memorised (Zajda, 2021). Learners must still attend to, process, and make sense of information in order for meaningful learning to occur. This highlights a key limitation, as these approaches extend the understanding of learning beyond the individual without fully accounting for the cognitive mechanisms that underpin knowledge acquisition. From a meta-pedagogical perspective, this suggests the need for an integrated approach to teaching and learning. Behaviourist strategies remain valuable in establishing structure, managing behaviour, and reinforcing expectations, while Constructivist approaches promote active engagement, critical thinking, and learner autonomy. Likewise, Social Learning Theory emphasises the role of modelling and interaction in shaping learning experiences; however, the effectiveness of these approaches is contingent upon an understanding of how learners process and retain information. Without the foundations of cognitive understanding, found wholly throughout Cognitivist perspectives, teaching strategies risk prioritising measurable outcomes, for the sake of superimposed standardised requirements, over quality of learning, resulting in superficial engagement rather than meaningful understanding (Liu, 2024). The demands of contemporary education reinforce the importance of such integration; thus, increasingly diverse and digitally mediated classrooms require pedagogical approaches that are flexible, inclusive, and responsive to a broad range of learning needs. While Constructivist and Social Learning approaches align closely with these demands by promoting collaboration and learner-centred practice, they must be underpinned by Cognitivist principles to ensure that learning remains structured, coherent, and meaningful (Gkintoni and Dimakos, 2022; Cook, *et al*., 2016). As such, while multiple theoretical perspectives contribute to our understanding of learning, Cognitivism provides the essential foundation through which these approaches can be effectively applied within modern educational contexts.

The Role of the Learner

Building on the preceding discussion of how learning is conceptualised, it is equally important to examine how different theoretical perspectives position the learner within the educational process. The role of the learner is conceptualised in markedly different ways, ranging from passive recipient to active constructor of knowledge, reflecting broader assumptions about agency, autonomy, and control. These differing positions have significant implications for pedagogy in practice, shaping how learning environments are designed and how learners are expected to engage with knowledge (Wang, 2012). Behaviourist, Cognitivist, Constructivist, and Social Learning perspectives each designate distinct roles for the learner, underpinned by varyingly contrasting views of participation and the nature of understanding. Examining these perspectives comparatively highlights their differences, whilst also revealing an ongoing point of friction between structure and independence in educational practice, particularly within contemporary contexts.

Within Behaviourist frameworks, the learner is positioned as a largely passive recipient whose actions are shaped and regulated through external stimuli and reinforcement. Rather than exercising autonomy, the learner's role is to respond appropriately to structured inputs, with scholarly success defined by the ability to produce desired behaviours. This positions learning within a system of control, where authority resides primarily with the educator, with learner agency limited to compliance with predetermined expectations (National University, 2023; Ertmer and Newby 2013). While such an approach can promote consistency, routine, and behavioural regulation, particularly in structured learning environments, it offers limited scope for independent thought or intellectual autonomy (Stewart, 2021). This positioning has important consequences for how learners engage with knowledge. Through the prioritisation of observable outcomes and correct responses, Behaviourist practices may encourage a focus on task completion rather than deeper understanding. Learners may become oriented towards satisfying external criteria, rather than engaging critically or reflectively with content. As a result, motivation is often driven by rewards or avoidance of negative consequences, rather than genuine curiosity or intrinsic interest (MacBlain, 2025). Such a model of the learner can be restrictive within contemporary educational contexts,

where independence, creativity, and higher-order thinking are increasingly emphasised. Thus, although Behaviourism remains valuable in promoting structure and behavioural regulation, it presents a limited conception of the learner, in which agency, autonomy, and meaningful engagement are constrained (Cook and Artino, 2016).

In contrast to Behaviourist perspectives, Cognitivist approaches position the learner as an active participant who interprets and engages with taught information, instead of merely responding to external stimuli. However, this activity is not entirely autonomous; it takes place within structured and carefully designed learning environments in which the educator plays a central role in guiding the process (MacBlain, 2025). Moreover, learners are encouraged to think critically, supported through sequencing, scaffolding, and the organisation of knowledge in ways that align with internal cognitive development. As such, while the learner assumes a more active role than a Behaviourist model, their autonomy remains bound by instructional design, resulting in a form of guided participation in which independence is gradually developed (Yilmaz, 2011).

Extending beyond the structured guidance of Cognitivist approaches, Constructivist perspectives position the learner as an active and autonomous agent in the construction of knowledge. Learning can be understood as a process of meaning-making, in which individuals draw upon prior experiences, engage with new information, and actively construct understanding through exploration and interaction (Nurhasnah, *et al.*, 2024). Within this framework, the learner assumes a central role, taking greater responsibility for their own learning, while the educator adopts a more facilitative, supporting position (Mishra, 2023). This reflects a shift towards learner-centred pedagogy, where independence, inquiry, and critical engagement are prioritised over direct, educator-ordered instruction. However, while this emphasis on autonomy can promote deeper engagement and more meaningful learning, it also introduces important challenges; Constructivist approaches often assume that learners possess the necessary cognitive, social, and cultural resources to engage independently, which may not always be the case. As a result, some learners, such as those with additional learning needs, may struggle without sufficient guidance, leading to misconceptions or fragmented understanding (Wibowo, *et al.*, 2025). Furthermore, the expectation of independence may inadvertently privilege those learners who are already more confident or

academically prepared, raising concerns around equity and accessibility within the classroom. Consequently, while Constructivism advances a more empowered model of the learner, it also highlights the limitations of assuming that all learners are equally equipped to take ownership of their learning without structured support (Mishra, 2023).

Similarly, Social Learning perspectives further develop the role of the learner by emphasising the influence of observation, modelling, and interaction within social contexts. From this perspective, learners do not operate in isolation, but are shaped by the behaviours, attitudes, and expectations of those around them (Akers and Jennings, 2015). Through observing both educators and peers, learners are able to develop an abundance of knowledge, skills, social norms, and patterns of behaviour, situating them socially, with learning emerging through participation in shared environments. However, while this perspective offers a more contextualised understanding of learning, it also highlights the extent to which learners are influenced by their environment (Rumjaun and Narod, 2025; Mishra, 2023). The learner is not fully autonomous but is shaped by the models they are exposed to, which may reinforce existing norms, behaviours, and inequalities within educational settings. As a result, Social Learning does not simply enable learning but reproduces particular ways of thinking and behaving. Therefore, while this perspective enhances the understanding of learning engagement by recognising the importance of interaction and context, it also raises important questions regarding the extent to which learners can exercise independent agency within socially structured environments (Singh, *et al.*, 2020).

Learning in the 21st Century

Having examined how learning is conceptualised and how different theoretical perspectives position the learner; it is important to examine how these theoretical perspectives are reflected in contemporary educational practice. Modern educational contexts are characterised by increasing diversity, rapid technological advancement, and a growing emphasis on skills such as critical thinking, collaboration, and independent learning (Blyznyuk, *et al.*, 2025). These developments have prompted a shift away from outdated Behaviourist, traditional models of rigid instruction, towards Constructivist, learner-centred approaches that prioritise engagement, adaptability, and participation.

Within this evolving landscape, important meta-theoretical questions emerge regarding the continued relevance of established learning theories, and the extent to which they are able to meet the growing demands of modern education (Kay and Kibble, 2016). Exploring these implications enables a more critical understanding of how theory informs practice, and whether current pedagogical approaches effectively support enriching and sustained learning in dynamic settings.

Despite the increasing emphasis on Constructivist, learner-centred approaches within contemporary pedagogy, there remains a significant strain between these ideals and the realities of real-world education systems. In practice, many schools continue to prioritise Behaviourist perspectives, emphasising measurable academic outcomes, standardisation, and performance within assessment-driven frameworks shaped by national policy and accountability structures (Welsh Government, 2021). High-stakes assessment, curriculum constraints, and accountability measures often require learners to demonstrate specific, predefined outcomes, which can limit opportunities for autonomy, exploration, and independent thinking. This tension is particularly evident within the context of Welsh educational policy. The Curriculum for Wales promotes a learner-centred vision, emphasising the development of ambitious, creative, and independent learners through its Four Purposes (Welsh Government, 2022). In principle, this aligns closely with Constructivist and Social Learning theories, encouraging collaboration, inquiry, and learner autonomy. However, the practical implementation of these ideals is often constrained by systemic pressures. The continued emphasis on attainment, alongside challenges such as funding and reduced access to sustained professional development, can restrict educator capacity to effectively enact these pedagogical approaches (Bell, 2021). As a result, educators may default to more structured outcome-driven practices, despite the advocation for more inclusive and child-led approaches, embedded within policy.

These constraints have significant implications for the nature and quality of learning within contemporary classrooms. When educational practice is shaped primarily by Behaviourist principles such as performance measures and predefined outcomes, there is a risk that learning becomes increasingly focused on attainment rather than understanding (Wang, 2012). This means that learners may engage strategically with

tasks, prioritising success criteria and assessment requirements of deeper cognitive engagement with content. In such contexts, opportunities for reflection, conceptual development, and the transfer of knowledge beyond immediate tasks may be limited. This emphasis on performance may also generate considerable pressure for both learners and educators (Cranmore, 2022). Learners may experience heightened anxiety and a sense of urgency to achieve desired outcomes, discouraging risk-taking, creativity, and genuine intellectual exploration. Similarly, educators operate within systems of accountability that prioritise measurable results, often limiting their capacity to implement flexible, learner-centred approaches. As a result, teaching may become increasingly focused on delivering outcomes, instead of facilitating meaningful learning experiences (Ball, 2021). Therefore, learning can take on a more instrumental role, where knowledge is treated as something to be reproduced for assessment purposes rather than critically engaged with or applied. While learners may demonstrate competence within structured frameworks, this does not necessarily reflect deep or sustained understanding, raising important questions regarding the extent to which current approaches genuinely support independent thinking and higher-order cognitive development.

In light of these challenges, it becomes evident that while contemporary pedagogical approaches emphasise engagement, collaboration, and learner autonomy, their effectiveness ultimately depends on how well they support meaningful understanding (Singh, *et al*., 2020). In order to develop and expand upon knowledge, educational institutions must facilitate complex and information-rich educational environments, requiring careful attention to how learning is structured and supported. Moreover, Cognitivist principles remain highly relevant within 21st century education (Giannoukos, 2024). Strategies such as scaffolding, the sequencing of content, and consideration of cognitive development play a critical role in enabling learners to make sense of new information and integrate it with prior knowledge. Without such structure, learner-centred approaches risk prioritising activity and engagement at the expense of depth and coherence (Mahbub and Beedle, 2025). As such, while Constructivist and Social Learning perspectives align closely with modern educational aims, their successful implementation is contingent upon the cognitive processes that underpin how leaners

engage with, understand, and retain information. Furthermore, effective pedagogy in modern educational contexts requires an integrated approach that balances autonomy, interaction, and structure. Rather than viewing learning theories as competing perspectives, educators must draw upon their complementary strengths, ensuring that opportunities for collaboration and independence are supported by a clear understanding of how innate learning occurs. In this way, Cognitivism provides a critical foundation for contemporary practice, enabling enhanced meaningful, sustained, and transferable learning (Yilmaz, 2011; Singh, *et al.*, 2020).

Conclusion

Within contemporary educational contexts, the increasing complexity, diversity, and integration of digital technologies place greater demands on how learners engage and apply knowledge. For the implementation of effective pedagogical theory in practice, no single theoretical perspective is sufficient in isolation. While Behaviourism, Constructivism, and Social Learning each offer valuable perspectives on how learning can be supported, Cognitivism provides the most essential foundation for effective pedagogy. Behaviourist approaches contribute to structure and behavioural regulation, whilst Constructivist and Social Learning perspectives emphasise interaction, participation, and context; however, these approaches remain dependent upon an underlying understanding of how learners process, organise, and retain information. Without sufficient insight into underlying cognitive processes, attempts to manage behaviour, facilitate social interaction, or promote active learning risks the lack of accessible, meaningful, and transferable educational experiences. Thus, Cognitivism plays a critical role in informing pedagogical decision-making, shaping how learning is organised and enabling educators to design experiences that align with how knowledge is acquired and understood. While it should not be viewed as a standalone solution, it remains foundational, providing a basis upon which other theoretical approaches can be meaningfully and effectively applied.

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