Critically discuss the theories and approaches to developing literacy,and multimodal learning in early childhood. The essay should also include theories of playbased learning and multimodality.

1.0) Introduction

This essay addresses the topics of literacy and multimodal learning within the context of early childhood development. Understanding of how children develop remains an evolving and frequently contested area of research, with many major theorists offering opposing views (Whitehead, 2009). Therefore, this essay is necessarily constructed along epistemologies that may be challenged in the future. However, what is widely understood is that children do not become literate purely by instruction in the four language arts. Instead, their learning process is dynamic and interconnected, with language forming the bridge between the internal world of the child and the external complexities of the social space (Pugh and Duffy, 2013).

This essay firstly discusses the current understanding of multimodal learning. It then explores atypical and holistic development. After this, the essay discusses child linguistic development in general, before turning to the role of play in child development. The essay then finally discusses the involvement of adults in multimodal learning. Overall, the essay makes the case that children are dynamic learners, and that learning is a holistic and highly complex procedure that involves multiple modalities and mechanisms.

2.0) Multimodal Learning

Although multimodal learning applies to all areas of development, this essay is focused upon literacy. This does not mean the ability to read books. Rather, being able to read is just one small aspect of a much broader dialogue that a child has with the world around them (Whitehead, 2009). In order for a child to become literate they need to engage with the environment in multiple different levels in order to bring meaning to the words and grammatical structures that they are learning. For instance, a structure such as:

By this time tomorrow I will have visited the shops

only has meaning if a child has the contextual experience of what 'tomorrow' is, what 'shops' are and what 'time' is. Even then, a child's understanding of what a 'shop' is

will depend upon their experience and engagement with the marketplace. Debates are on-going as to how far grammar influences conception of time, but what is known is that language needs to be anchored to signifiers, and that these signifiers absorb meaning (Neaum, 2012). In other words, a lexical item is not an ontological absolute, but is rather an epistemological phenomenon. This means that to become literate requires engaging with the social space (Lantof et al, 2015).

Multimodal learning refers to approaching one learning goal from multiple different ways. The basic theory is that the greater variety of learning methods that are attempted, the higher the level of understanding and retention. According to Flewitt (2008: 122) this is a natural process, and:

"*children become literate in many ways, not just through language, but through learning to use combinations of different* modes *such as gesture, gaze, movement, image, layout, music, and sound effects*"

In other words, learning to become literate is not simply about being formally instructed in reading and writing, but is a much broader and interconnected process that involves many more lines of input (Pugh and Duffy, 2013). Children are surrounded by inputs, and must learn to navigate these and to understand how they are linked. In the contemporary arena, a significant percentage of this is thought to be media related.

Children today are surrounded by digital technology. This represents a vast array of modalities that are new, and which consequently are not fully understood. Educational researchers have been scrambling to understand the effect that these changes are having upon child development, but are typically outpaced by the rapidity of technological development. By the time that one technology is academically explored, it is replaced by another (Bennett et al, 2008). However, what is known is that young children have a fluency in the use of digital technology that older generations do not have, and this fluency represents cognitive and behavioural development that is unique to this generation (Palfrey and Gasser, 2013). The digital element is therefore a very important aspect of child development, although the

precise influence of digital media on development is yet to be conclusively determined (Zimmerman et al, 2007).

The digital environment represents new forms of literacy. This is added to extant forms, such as traditional books, being able to read and decipher signage, and understanding the differences between linguistic agendas (McBride-Chang, 2014). The latter refers to children being able to understand the difference between formal and informal communication, and how communication models fit into the broader social space. Children need to be able to navigate these complex literacy pathways seamlessly if they are to thrive socially. As Flewitt (2008: 122) puts it:

"*a major task […] for practitioners is to reflect on their own practice so they can better support children's understanding and competence in diverse forms of visual, printed, and digital literacies*"

This is an issue of pedagogy as much as it is a responsibility for practitioners. Learning remains an agenda that is subject to many different interpretations, and curriculums around the world reflect this. For instance, New Zealand has been trialling a new approach to early years education, Te Whāriki.

Te Whāriki looks at the learning process from a non-Piaget angle (Lee et al, 2013). Piaget's ideas underpin pedagogy in Britain and the US, but those ideas are just one way of looking at the learning process (Ang, 2013). Piaget conceptualises the learning process as forming clear developmental stages that must be 'scaffolded' by adult support (Ang, 2013). Adults therefore have a clear role to play in providing support in order to meet clearly defined academic learning targets. Te Whāriki differs in that it sees the goal of education as being that of developing a holistic communicative presence in the sociocultural space (Lee et al, 2013). Communication is therefore not anchored to literacy, but is an organic phenomenon that is essential to the operation of the individual as a social entity (Lee et al, 2013).

Te Whāriki is an interesting case study for understanding multimodal learning. It sets a deliberate agenda of not separating learning into different modalities, but instead views the entire process as being interconnected (Griffiths, 2014). This does raise

some practical and conceptual challenges, particularly as education systems are so structured in most parts of the world. For instance, children in many Middle Eastern countries must all study the same lesson from the same syllabus at the same time in order to ensure uniformity Arnove et al, 2012). Achieving a population with clearly definable and similar skillsets is a popular agenda in many countries around the world. However, this does not necessarily reflect the realities of how children learn.

This exposes the fundamental problem of education. Children are constantly learning, and understanding how this occurs and how best to assist and shape it is a major problem for policy makers around the world (Pugh and Duffy, 2013). The balance between how far teachers and schools need to be regulated and how far they should be free to deviate from standard pedagogy is not only a problematic one but is also one that is ethically difficult to explore (Peters, 2015). From an ethical perspective, experimenting with early years development is both important and questionable because the research can have a lasting effect on the individual (Peters, 2015). This is why theories such as multimodalism tend to arise gradually, and slowly, and which lack robust empirical evidence.

However, the multimodal argument has gathered pace, largely because is closely aligned with other areas of child development theory (Vigliocco et al, 2014). For instance, it is widely agreed that the ecological environment of a child has a major influence on how they learn to interpret the world (Kagicbasi, 2013). This ecology has may different spheres of influence, ranging from the microcosm of the family to the broader social structures. The way that children are expected to interact with their environment has a significant impact on the learning experience (Kagitcbasi, 2013). Children who are encouraged to question, to be visible, and to have a structured introduction to literacy will inevitably have a different experience to those who live in environments where formal education and constructed childhoods are not part of the norm.

Nevertheless, children from all environments do become literate. The literacy may not necessarily be the same, and may not involve skills such as reading and writing, but regardless of whether or not they have specific instruction children do learn to communicate and do learn to interact with their social space. This reveals the

multimodality of language (Vagliocco et al, 2014). What this means is that children are constantly learning from the world around them, and that learning follows many different avenues. However, children in countries where school does not start until the age of six or seven will inevitably have a very different developmental experience from children who live in countries such as the UK where school begins at the age of four. These in turn will have a different experience from those who have no schools at all.

3.0) Holistic and Atypical Development

Te Whāriki is arguably the best known example of holistic development (Lee, 2013). However, it is important to note that the foundations of that curriculum are in the natural ways that children are brought up in indigenous communities, which have very different conceptions of childhood to some other communities (Lee, 2013). The idea of Te Whāriki is to let children play and explore, but to gently guide them towards particular goals, such as altruism and a respect for the environment. In this way, literacy becomes a vehicle for understanding the world rather than being an agenda in its own right. This means that communication does not just have to occur through reading and writing, but is also linked to art, body language, movement, and activities. This approach raises a challenge within the UK's curriculum context, because it encourages children to express themselves in their own ways and at their own pace rather than reaching clear developmental markers. In the UK's Piaget inspired system, the agenda is much more structured. It also raises challenges in New Zealand, according to Griffiths (2014), who explains that breaking the mould of traditional education systems is very challenging.

There are strong arguments for diversity amongst young learners, and for a holistic response (Whitbread and Colman, 2015). Older learners tend to be understandable as being either kinetic, aural, visual, or those who prefer to study texts (Jonassen and Gabrowski, 2012). These concepts, which were radical when first introduced, are now widely accepted. They explain that people's learning happens in different ways, and that the ideal instruction must appeal to all learning types (Jonassen and Gabrowski, 2012). However, young children have not yet developed their learning methodology, and experiment with multiple modalities. They will feel objects, taste

them, and take inputs from sound, smell, and vision (Bazalgette and Buckingham, 2013). This means that any environment that a child is in is a learning environment, even if that environment is not directly related to literacy. Children are highly holistic because they have not yet been conditioned to separate learning processes (Bazalgette and Buckingham, 2013).

Atypical learners reveal that the developmental process is not uniform. One of the most interesting examples is bilingualism, which is in itself a distinct area of academic study (Drury, 2007). It is still not fully understood why bilingual children are able to develop separate languages rather than having a blurring of languages (Myers-Scotton, 2005). How the brain is able to navigate different linguistic spaces remains a mystery, although through bilingualism it is possible to see that there are marked differences in brain development from those interacting with the world via pictoral languages such as Chinese and those using a Roman alphabet (Myers-Scotton, 2005). The vehicle of language is therefore developmentally influential, and this reveals the importance of multiple modalities, as it shows that children develop literacy by contextualising their words. That young children can differentiate between languages during the pre-literacy phase shows that there is a strong anchoring between the environment and language.

Some children do not develop language. This can be due to developmental problems that affect cognition, but can also be due to the social space that they develop in (Fillmore et al, 2014). One famous case is that of Genie, a feral child who was kept in isolation until she was a teenager. She never managed to progress beyond the most basic grammatical constructions, and this is something that is also widely seen in adult learners attempting second language acquisition. It suggests that linguistic competence is not purely about studying the vocabulary and grammar of a language, but about engaging with that language in a developmental capacity that operates on multiple and holistic levels (Fillmore, 2014). This is thought to be because the brain needs to engage with the environment as it learns, which is why learning is multimodal.

4.0) Theories of Language Acquisition

The linguistic development of children remains one of the great debates of contemporary academia (Ambridge and Lieven, 2011). The primary debate is how far children have an innate and therefore inevitable linguistic cognitive programming and how far language is a social construct. The answer is likely to be somewhere between the two polarities, with the human brain having in-built linguistic mechanisms that are then shaped by external social forces (Ambridge and Lieven, 2011). Humans seem to be well adapted to this, which can be seen particularly in the form of motherese, which is a type of language that adults naturally adopt when speaking to very young children. The style is repetitive, highly rhythmic, and contains a much broader range of tonalities than normative speech. It is a simplified and exaggerated form of language, which conveys to children the basic building blocks of literacy. Importantly, motherese occurs naturally, showing that language is instinctive and behavioural (Ambridge and Lieven, 2011).

Theorists agree that grammatical awareness develops over many years (Lust, 2006). Children begin by using single noun signifiers, and gradually add verbs and then adjectives. They first make simple sentences, then compound sentences, and finally complex sentences (which have, for instance, embedded clauses). Children develop an awareness of the present environment first, and this is followed by the past and future (Lust, 2006). Complex grammatical constructions such as the third conditional or the future perfect continuous are not typically acquired until teenage years. Some children never master the full complexities of English grammar, which is attributed to the significant divide between spoken and written English combined with pronunciation challenges (Ambridge and Lieven, 2011). For instance, a common mistake is:

"I can't <u>of</u> been"

rather than:

"I can't <u>have</u> been"

This is because the pronunciation of 'of' and 'have' is almost always /əv/, utilising the most common neutral vowel sound in the English language, the schwa (ə). Due to the natural stress patterns of English, prepositions and auxiliary verbs such as 'have' and 'be' are typically unstressed and are therefore very difficult to hear. Any child learning English cannot therefore rely purely upon their verbal communication in order to become literate, according to Ambridge and Lieven (2011). Furthermore, English children have the additional challenge of having to learn to match the written patterns to the spoken patterns.

However, much still needs to be learned until language acquisition is fully understood. Theorists continue to disagree about the precise neural mechanisms that are involved, which is made more interesting in atypical cases such as bilingualism and savants that have unusual abilities with language. Language is at once a distinct neural zone, but is also deeply connected with other areas of the brain such as sight and smell (Taeschner, 2012). This is one of the reasons that multimodal learning has significant support, because it recognises that separating language from other aspects of the human experience is impossible.

5.0) Theories of Play

Play has now become one of the most important areas of academic interest in the study of how young learners develop. Play is a broad term that refers to a wide range of activities that relate to imagination, creativity, and trial and error. According to Kendrick (2016: 36) "young children use a range of modes to express their meanings in play". For Kendrick (2016: 36) this is a form of social semiotics, which refers to the phenomenon of people learning to use signs and modes in order to construct, understand, and interpret the world around them. This is a form of pre-literacy non-verbal communication.

Non-verbal communication is thought to make up around 80 per cent of human communication. There are many different forms of non-verbal communication, which range from eye contact to more overt forms such as gesture (Marsh and Hallet, 2008). Children quickly learn to understand the difference between a smile and a frown, with even very young babies being able to interpret the difference between a

genuine human face and one that has been distorted. This shows that signs are crucial to interpreting the sociocultural space, and that they are a sequence of modes that children automatically begin to explore from their earliest days (Marsh and Hallet, 2008).

All animals seem to engage in play. Play activities occur within a clearly defined space that is outside the boundaries of the normative everyday experience (Lust, 2006). This can be described as a performance, whereby the players act out both real and imagined experiences. This relates to the theory of social constructivism, which argues that society as a whole is performative and that learning to perform is crucial to surviving socially (Lust, 2008). This includes learning the narratives of the social space, which includes both processes such as language and bringing meaning to that language. Through play, children learn to explore the signifiers and behaviours that accompany them (Lust, 2008).

6.0)   The Role of the Adult

The role of the adult is hotly contested within the context of child development (Whitehead, 2009). This returns to the debate concerning how far linguistic development is cognitive and how far it is behavioural. The behavioural argument places significant responsibility on the adult for the child's development of literacy. The cognitive argument reduces this responsibility, and sees development as being more natural. Atypical cases such as Genie help little with the argument because they have not been constructed in scientific settings and have multiple uncontrolled variables.

Adults are, however, thought to have a very important role in child development. An adult typically acts as a mediator between the creative space of the child and the constructed space of the adult world that they are attempting to negotiate (Whitehead, 2009). For instance, an adult might act as a customer at a child's shop, demonstrating the correct verbal and non-verbal behaviours that would be expected in the genuine setting. Rather than simply expecting children to watch and learn, adults frequently enter the developmental space of the child by taking an active part

in play so that the child learns through doing and experiencing rather than purely through instruction.

Adults also have a more formal role in terms of correcting and answering questions relating to different media (Kendrick, 2016). One of the first challenges for children on their journey towards literacy is vocabulary acquisition. Adults therefore play an important role in matching the object to the signifier. This is done both in a structured and an unstructured way, which varies from books that teach children about the world through pictures to children directly asking "what's that?" when they are engaging with an environment. In this way, adults act as guides (Kendrick, 2016).

Adults also help to define and shape the four language arts. These are listening, speaking, reading, and writing. When a child first starts to develop these skills are unformed and chaotic. Children are impulsive learners, who usually strive to communicate by any available means (Neaum, 2012). Adults on the other hand have a very clear sense of different styles of communication, and the different ways in which they are used. Even though writing is often referred to as the most important language art, it is listening that children often have to be guided towards first. Speaking starts rapidly and, for most children, with ease, but listening is a difficult skill for most children (Neaum, 2012). Adults are integral to helping children to understand that they need to be able to perform activities such as listening, and this skill in turn accelerates the child's multimodal capacity.

7.0) Conclusion

Children engage with language in a holistic and extensive way as they are developing. Language is all around them, and so they are constantly interacting with it. Translating this learning process into the four language arts requires guidance, but it is also something that will happen naturally as children play and engage with the world. Multimodal theories of learning reflect the fact that learning is not simply instruction. Instead, it is a process of engagement and exploration. Although theories of child development remain open to debate, it is understood that children develop literacy through a wide variety of inputs. These include all of the senses, adults, and also the digital space, the importance of which is rising in the developmental world of

the child. Overall, the lesson to be learned is that children are constantly absorbing from their environments, and that everything around them contributes to their literacy.

References

Ambridge, B. and Lieven, E.V., 2011. *Child language acquisition: Contrasting theoretical approaches*. Cambridge University Press.

Ang, L., 2013. *The Early Years Curriculum: The UK Context and Beyond*. Routledge.

Arnove, R.F., Torres, C.A. and Franz, S. eds., 2012. *Comparative education: The dialectic of the global and the local*. Rowman & Littlefield Publishers.

Bazalgette, C. and Buckingham, D., 2013. Literacy, media and multimodality: a critical response. *Literacy*, *47*(2), pp.95-102.

Bennett, S., Maton, K. and Kervin, L., 2008. The 'digital natives' debate: A critical review of the evidence. *British journal of educational technology*, *39*(5), pp.775-786.

Drury, R., 2007. *Young bilingual learners at home and school researching multilingual voices*. Trentham Books.

Durgunoglu, A.Y. and Verhoeven, L., 2013. *Literacy development in a multilingual context: Cross-cultural perspectives*. Routledge.

Fillmore, C.J., Kempler, D. and Wang, W.S. eds., 2014. *Individual differences in language ability and language behavior*. Academic Press.

Flewitt, R. 2008. Multimodal literacies. In: Marsh, Jackie and Hallet, Elaine eds. *Desirable Literacies: Approaches to Language and Literacy in the Early Years.* London, UK: Sage, pp. 122–366.

Griffiths, J., 2014. Weaving Te Whāriki Aotearoa-New Zealand's early childhood curriculum document in theory and practice. *Early Years*, *34*(3), pp.320-321.

Jonassen, D.H. and Grabowski, B.L., 2012. *Handbook of individual differences, learning, and instruction*. Routledge.

Kagitcibasi, C., 2013. *Family, self, and human development across cultures: Theory and applications*. Routledge.

Kendrick, M., 2016. *Literacy and Multimodality Across Global Sites*. Routledge.

Lantolf, J.P., Thorne, S.L. and Poehner, M.E., 2015. Sociocultural theory and second language development. *Theories in second language acquisition: An introduction*, pp.207-226.

Lee, W., Carr, M., Soutar, B. and Mitchell, L., 2013. *Understanding the Te Whariki approach: Early years education in practice*. Routledge.

Lust, B.C., 2006. *Child language: Acquisition and growth*. Cambridge University Press.

Marsh, J. and Hallet, E. eds., 2008. *Desirable literacies: Approaches to language and literacy in the early years*. Sage.

McBride-Chang, C., 2014. *Children's literacy development*. Routledge.

Myers-Scotton, C., 2005. *Multiple voices: An introduction to bilingualism*. Wiley-Blackwell.

Neaum, S., 2012. *Language and literacy for the early years*. SAGE Publications.

Palfrey, J. and Gasser, U., 2013. *Born digital: Understanding the first generation of digital natives*. Basic Books.

Peters, R.S., 2015. *Ethics and Education (Routledge Revivals)*. Routledge.

Pugh, G. and Duffy, B. eds., 2013. *Contemporary issues in the early years*. Sage.

Taeschner, T., 2012. *The sun is feminine: A study on language acquisition in bilingual children* (Vol. 13). Springer Science & Business Media.

Vigliocco, G., Perniss, P. and Vinson, D., 2014. Language as a multimodal phenomenon: implications for language learning, processing and evolution. *Philosophical Transactions of the Royal Society of London B: Biological Sciences*, *369*(1651), p.20130292.

Whitebread, D. and Coltman, P. eds., 2015. *Teaching and learning in the early years*. Routledge.

Whitehead, M., 2009. *Supporting language and literacy development in the early years*. McGraw-Hill Education (UK).

Zimmerman, F.J., Christakis, D.A. and Meltzoff, A.N., 2007. Associations between media viewing and language development in children under age 2 years. *The Journal of pediatrics*, *151*(4), pp.364-368.