

Student Name: Pandora Oates

Student ID: 2317746

Date: 27.10.2024

Word count: 2174

Module: Language and Literacy in the Digital Age

Module No: ECEY5004_BIRM

Language and literacy in the Digital Age

Introduction

During the period between birth and eight years the foundations for speech, language and literacy are built, contributing to the reading, writing and overall development of a child's literacy skills for the remainder of their years in education and beyond into adulthood (Boynton, 2021). The ability to communicate ideas, emotions, and to be understood by others is crucial, a human right and necessity (Gascoigne, 2012). UNCRC Article 13, states children have the right to freedom of expression and should be able to impart their thoughts and ideas through a variety of means including orally, in writing or print, through art or by another media of a child's choice. Article 30 emphasises that when children are in communities where they are the linguistic and cultural minority, children should enjoy their culture and use their own language (UNICEF, 2024). This essay will examine the links between communication, reading, writing, language development and language development theory in early childhood and how early years practitioners could use digital technology and traditional books to support language and literacy skills through storytelling.

Language theories and development

There are three main theories of language development: behaviourist, nativism and cognitive. Skinner (1988) believe that linguistic development is shaped by their environment, claiming that our environment teaches us everything we know and causes us to alter our behaviour accordingly. Skinner disagrees with Chomsky, stating that language solely dependent on nurture and is acquired through copying and reinforcement, as we see in sustained shared thinking interactions as recorded in the EPPE project (Sylva et al, 2004).

However, research by Morgan (2017) has shown that a group of women read 'The Cat in the Hat' to unborn fetuses for the last seven weeks of pregnancy, these babies showed a consistent preference for this story, this is presumed because of their prenatal exposure. We also know that hearing in utero becomes operational around the 20th week of gestation, the fetus encounters speech all be it attenuated and distorted by the maternal tissues, developing prosodic knowledge of their native

language (Gervain, 2018). Babies have been recorded as having a preference for their mother's voice from birth and research using MRI's on children have shown that many regions of the brain were activated when hearing their mother's voice, including the auditory cortex, amygdala, mesolimbic and prefrontal cortex, leading to the understanding that language along with social and emotional processes is hardwired (Digitale, 2016). Chomsky's Language Acquisition Device theory would appear to confirm this - he states that the brain's architecture has the innate ability to learn and use language (Sobeck's, 2020 and Chomsky, 2006). Pinker (1995) agrees with Chomsky's theory that language is innate and challenges what he considers to be misconceptions that language must be explicitly taught to children or that children learn from copying. Instead, Pinker's theory sets out that we have a universal grammar which allows children to extrapolate grammatical rules to form understanding and that our brains are hardwired with language, therefore part of our biological inheritance (Pinker, 1995). Bruner (1983) evolved Chomsky's theory and developed LASS – Language Acquisition Support System, where he suggested that children need adult support their language development and was influenced by Vygotsky's (1962) Zone of Proximal Development.

During my storytelling, Bruner's theory and Vygotsky's ZPD is demonstrated with the collaborative elements of Makaton and repeated refrains, scaffolding the language being used to construct knowledge and develop language (Bruner, 1983 and Vygotsky, 1962). Collaboration is important for divergent thinking, supporting learning (Robinson, 2016) and repetition through repeated refrains which consolidate language learning (Rowland, 2024). Bandura's social learning theory echoes the importance of social relationships suggesting that we learn through observation, imitation and through modelling behaviour (MacBlain, 2022). The activity also stimulated creativity when the children were asked to imagine how the characters feel, as inspired by Vygotsky (1962).

We should also consider Bronfenbrenner in association to language development - as practitioners we are part of a children's 'microsystem', along with their families (Pound, 2014, Neaum, 2012).

Approaches to enable oracy and literacy skills

Palmer and Bayley (2013) state that children are exposed to a cacophony of background noise from devices, mealtimes and conversations, and other adult interactions have been replaced with screen gazing, eroding a child's ability to develop listening skills. Without the ability to listen with discrimination and attention children will struggle to understand meaning in language and be slow to talk directly affecting their oracy skills according to Palmer and Bayley (2013). Some European countries agree; Dutch classrooms have limited devices unless specifically required for learning (The Guardian, 2023) and Switzerland health authorities have recommended that children aged two and five years have only one hour of screen

time in total per day (The Telegraph, 2024) due to concerns around academic achievement and social interaction. The EYFS communication is prime area that underpins all learning, skills in listening, attention and understanding are key aspects of communication and language (EYFS, 2024, Development Matters, 2023)

The story 'The little red hen' (Barton, 1993) in the video was selected to be read to a group of 3-5 year-olds. Lumgar (2021) explains there are three areas that need to be considered for effective storytelling. Firstly, practitioners need to view children as recipients by planning for their interaction, scaffolding where needed to develop confidence in their voices to repeat refrains and express ideas, knowing their ideas are valued and listened too. Next, practitioners need to consider if the children are interested in the chosen text (Burns 2019). Burns (2019) states that practitioners need to think about interactions during storytelling, eye contact can maintain a child's attention, while gestures and adjusting the tone and pitch of your voice can bring characters alive (Lumgar, 2021). During my story telling the characters reaction changed when they thought they might get some food and my voice changed to becoming high pitched with excitement. Finally, Lumgar (2021) posits that practitioners should create a welcoming environment if possible, and the practitioners should sit at the same level of the children to maintain their attention, ask open-ended questions and encourage children to make connections and reflect on the story.

Cox Gurdon (2019) says that storytelling is like making a quilt, when done correctly children can begin to connect to one another and the wider world via the threads made of stories. Lumgair (2019) posits of the dynamism of storytelling as a collective experience, children can safely explore both inner and outer worlds, a single story has the power to take on a life of its own in the hearts, imaginations and in the play of children. To enable this practitioners need to provide environments where stories can be explored further, through resources that enrich their oracy and embed new vocabulary and unlock language using puppets, costumes, small world and realia objects relating to the story (Rawstrone, 2018). It was suggested that children could make their own dough and explore pretend play with masks of the characters from the story.

During both of my story sessions Makaton signing was used to connect with ALN, EAL and students with speech language communication difficulties (SLCD) or a speech delay. Makaton supports these children to engage and focus during storytelling by acting as a bridge between non-verbal and verbal communication, supporting their language development and by reducing frustration for the children that struggle to verbalise and communicate. The Visual cues in Makaton support children to understand concepts in storytelling and improve their comprehension (Sunshine Support, No Date). Similarly, the practise of cued articulation was used to reinforce the production of speech sounds correctly and with clarity, supporting the child with their communications needs whilst also addressing the requirement to produce a pure phonetic sound supporting the standard English seen in print and

therefore promoting the child's literacy skills (Gormley, 2020 and Passy, 2010). Cued articulation can be adapted and utilised creatively through games in classroom environment with the support of a practitioner if needed to provide deeper targeted support for children that have communication difficulties supporting their language development (Gormley, 2020). The physical actions also prepare the children in readiness to write the language learnt by strengthening their muscles (Oussoren, 2010). Colourful semantics is a communication system which uses pictures and colours to support language and grammar, these resources can also support children at have speech difficulties or a speech delay (NHS Forth Vallay, 2020). Colourful semantics help children to make sense of a word by giving it meaning and context when spoken and the pictural resources can be used to retell stories either freely or with support (NHS Forth Valley, 2020)

Spoken language is a precursor to literacy skills, through good oracy skills children can begin to read and write, enabling them to communicate with others in a variety of ways (Neaum, 2012). As early years practitioners we enable this by providing activities and experience to support this development in all learning areas of their environment (EYFS, 2024)

Digital storytelling

Children are growing up where mobile phones and other digital devices are used to communicate daily, additionally young children are also having regular access to and use this technology (Miller et al. 2017, Li et al 2020). Children need to become skilled in these new forms of communication and supported in becoming digitally literate, meaning literacy is no longer limited to the traditional forms of reading and writing (Maureen, Meij and Jong, 2020).

A report by UNESCO (2018) also put an importance on supporting digital literacy in early years education. However, in 2022 the revised EYFS removed technology from 'understanding the world' stand of learning, Joyce (2024) emphasises that computers and technology are vitally important within early years settings and have the potential to support several areas of development and learning and that as practitioners we also can raise children's awareness of e-safety both in school and at home. Joyce (2024) suggests that drawing apps such as Doodle Buddy the Notes app on iPads can support the development of fine motor skills, while games and apps such Book Creator can support children's oracy, literacy and digital literacy skills developing confident and competent users of technology in early years in readiness for how they will be expected to use technology as they move up the key stages. Some apps can translate the work of bilingual and multilingual students meaning their work can be shared with other children using those languages in the settings and their families (Franks, 2024) bridging relationships with parents and the wider community.

In the retelling of 'The Little Red Hen' video, children reproduced the story using their own pictures, recordings of their voices and adding them to a PowerPoint, both the children's oracy, literacy and digital literacy skills were supported through this process. This amalgamation of oral storytelling with the addition of audio, images and digital tools is what is known as digital storytelling (Barber, 2016). By personalising the story with their artwork, voices and by involving them in the creation process of the digital story this may increase a child's motivation to learn and improve their literacy skills such as comprehension, sequencing and grammar, according to Boerma et al. (2016).

The digitization of our early years environments is fast becoming the norm, with the use of iPads, cameras, technical toys including Bee Bots and interactive whiteboards to support learning, and technology has even been used in the creation of virtual classrooms (Roberts, 2023). Roberts (2023) posits that the digitizing of our classrooms has created opportunities for practitioners and children alike, practitioners are able to access and adapt resources to enable bespoke and inclusive learning opportunities. As practitioners we need to be mindful of balance when introducing screen-based technology as its use can be passive and isolating, however screen-based technology can also be used creatively to actively engage collaborative styles of learning with other peers and practitioners, encourage communication and broaden the child's own interests and learning (Caldwell, no date). Technology can have its disadvantages, students might struggle to navigate apps, sharing information from one device to another or connection to the internet or connection to another devices (Stang and Steen, 2023). Despite these disadvantages and others, the overall advantages to children's learning using digital storytelling more than compensated for the disadvantages (De Jager et al. 2017).

Twomey (2016) suggests that practitioners to define how we approach technology with our settings, she uses two categories to decide if a tool will enhance and elevate children's learning. Firstly, 'mirrors' in technology allow for opportunities in reflection and independence, taking children's thinking deeper and help them to grow from the experience. 'Windows' allow interaction with technology support children to go beyond themselves and connect with the wider community and world and develop in ways that otherwise may have been limited (Twomey, 2016).

Conclusion

Stories support children develop their understanding of themselves and others by developing their language, they become confident, articulate, knowledgeable and responsible people that can connect with the world.

The challenge for children is finding this independence with technology when concepts such as these are still in emergent stages for us as practitioners too.

References

Barber, J.F. (2016) '*Digital storytelling: New opportunities for humanities scholarship and pedagogy*', *Cogent arts & humanities*, 3(1), pp. 1181037-. Available at: <https://doi.org/10.1080/23311983.2016.1181037>. (accessed 25th October)

Barton, B. (1993). *The Little Red Hen*. New York, Haper Collins

Boerma et al. (2016) '*Reading Pictures for Story Comprehension Requires Mental Imagery Skills*', *Frontiers in psychology*, 7. Available at: <https://doi.org/10.3389/fpsyg.2016.01630>. (accessed 25th October 2024)

Boynton, K. (2021) *Supporting Early Speech-Language Development, Strategies for Ages 0-8*. Oxon, Routledge.

Bruner, J (1983) *Child's Talk*. Oxford, Oxford University Press

Burns, M. (2019) *I'm a Neurocientist. Here's how teachers change kids brains*, Available at: <https://www.edsurge.com/news/2019-02-19-i-m-a-neuroscientist-here-s-how-teachers-change-kids-brains> (accessed 27th October 2024)

Caldwell, H. (No Date) *Technology in the early year foundation stage*. Available at: <https://tpea.ac.uk/technology-in-the-early-year-foundation-stage> (accessed 26th October 2024)

Chomsky, N. (2006). *Language and mind*, Cambridge, Cambridge University Press.

Cox Gurdon, M. (2019) *The Enchanted Hour: The Miraculous Power of Reading Aloud in the Age of Distraction*, London, Piatkus.

De Jager, A. et al. (2017) '*Digital Storytelling in Research: A Systematic Review*', *Qualitative report*, 22(10), pp. 2548-. Available at: <https://doi.org/10.46743/2160-3715/2017.2970>. (accessed 26th October 2024)

Department of Education (2023) *Development Matters*, Available at: https://assets.publishing.service.gov.uk/media/64e6002a20ae890014f26cbc/DfE_Development_Matters_Report_Sep2023.pdf (accessed 27th October 2024)

Department of Education (2024) *Early Years Foundation Stage (EYFS) Statutory Framework*. Available at: https://assets.publishing.service.gov.uk/media/670fa42a30536cb92748328f/EYFS_statutory_framework_for_group_and_school_-_based_providers.pdf (accessed 27th October 2024)

Digitale, E. (2016). *Mom's voice activates many different regions in children's brains*. Available at: <https://med.stanford.edu/news/all-news/2016/05/moms-voice-activates-different-regions-in-children-brains.html> (accessed 27th October 2024)

Franks, L. (2024) *When will Book Creator have AI in it?*. Available at: <https://bookcreator.com/2024/10/when-will-book-creator-have-ai-in-it/> (accessed 26th October 2024).

Gascoigne, M. (2012) *Better communication – shaping speech, language and communication services for children and young people*. Available at: <https://www.bettercommunication.org.uk/Better%20Communication%20low%20res%20file.pdf> (accessed 6th October 2024).

Gervain, J. (2018) 'The role of prenatal experience in language development', *Current opinion in behavioural sciences*, 21, pp. 62–67. Available at: <https://doi.org/10.1016/j.cobeha.2018.02.004>. (accessed, 5th October 2024).

Joyce, K. (2024) *The importance of computing in the EYFS*. Available at : <https://www.stem.org.uk/all-news/the-importance-of-computing-in-eyfs> (accessed 26th October 2024)

Li et al. (2020) 'The Relationships between Screen Use and Health Indicators among Infants, Toddlers, and Preschoolers: A Meta-Analysis and Systematic Review', *International journal of environmental research and public health*, 17(19), pp. 7324-. Available at: <https://doi.org/10.3390/ijerph17197324>. (accessed 25th October 2024)

Lumgar, H. (2021) *Using stories to support learning and development in early childhood, a practical guide*, London, Jessica Kingsley Publishers

Miller et al. (2017) 'Looking beyond swiping and tapping: Review of design and methodologies for researching young children's use of digital technologies', *Cyberpsychology*, 11(3). Available at: <https://doi.org/10.5817/CP2017-3-6>. (accessed 25th October 2024)

Morgan, J. (2017) *Womb with a view: Sensory development in utero*. Available at: <https://utswmed.org/medblog/sensory-development-utero/#:~:text=In%20a%20follow%20Dup%20experiment,several%20ounces%20of%20each%20day>. (accessed 27th October, 2024)

No Author. (2023) *Mobile phones and other devices to be banned from Dutch schools*. The Guardian. Available at: <https://www.theguardian.com/world/2023/jul/04/mobile-phones-other-devices-to-be-banned-from-dutch-classrooms> (accessed 26th October 2024)

NHS Forth Valley. (2020) *Colourful Semantics, A resource for developing children's spoken and written language skills*. London. Routledge

Oussoren, R. A. (2010). *Write Dance in the Early Years*, 2nd Edition, London, Sage

Palmer, S. and Bayley, R. (2013) *Foundations of Literacy*. London, Featherstone Education Publishing.

Passy, J. (2010) *Cued Articulation - Consonants and Vowels*, Australia, ACER Press.

Pound, L. (2014) *How Children Learn, Education theorists and approaches from Comenius the father of modern education to giants such as Piaget, Vygotsky and Malaguzzi*. London, Practical Pre-School Books

Rawstrone, A. (2018) *EYFS Best practice: all about Literacy*. Available at: <https://www.nurseryworld.co.uk/content/features/eyfs-best-practice-all-about-literacy/#:~:text=Children%20need%20a%20rich%20range,small%2Dworld%20play%20and%20puppets>. (accessed 26th October 2024)

Roberts, S (2023) *What is Digitalization in education*, Available at: <https://medium.com/@everlynsalt/what-is-digitization-in-education-6b697bcfb38b#:~:text=The%20world%20of%20education%20is,virtual%20classrooms%2C%20and%20digital%20textbooks>. (accessed 25th October 2024)

Skinner, B. F. (1988). *The selection of behaviour: The Operant Behaviorism of B. F. Skinner: Comments and Consequences*. Cambridge, Cambridge University Press.

Stang, E. and Steen, T. (2023) 'Digital storytelling in a digital environment: a case study for social work education', *Social work education*, pp. 1–18. Available at: <https://doi.org/10.1080/02615479.2023.2275664>. (accessed 26th October 2024)

Sunshine Support (No Date) *What is Makaton and how do children benefit from using it to communicate?*. Available at: <https://sunshine-support.org/what-is-makaton-and-how-do-children-benefit-from-using-it-to-communicate/#:~:text=What%20are%20the%20Benefits%20of,and%20continuity%20of%20communication%20strategies>. (accessed 24th October 2024)

Sylva, K. et al. (2004). *The Effective Provision of Pre-School Education (EPPE) Project: findings from the Pre-School to the end of key stage 1*, Nottingham, DFES Publications.

Twomey, J. (2016) *Learning through Windows and Mirrors: the role of Book Creator in Early Childhood*. Available at: <https://bookcreator.com/2016/12/learning-windows-mirrors-role-book-creator-early-childhood/> (accessed 26th October 2024)

UNESCO. (2018). *Building tomorrow's digital skills - what conclusions can we draw from international comparative indicators?*. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000261853>. (accessed 25th October 2024)

UNICEF (2024) *How we protect children's rights. With the UN Convention on the Rights of the Child*. Available at: <https://www.unicef.org.uk/what-we-do/un-convention-child-rights/> (accessed 23rd October 2024)

Vygotsky, L.S. (1962). *Thought and language*. Cambridge, MIT Press