



THE PENCIL OF STRENGTH BUISSNESS PLAN

Ultimate writing tool for children in the early years



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Introduction

The Pencil of Strength is the ultimate writing tool for practitioners and children in educational settings to help children improve their fine and gross motor abilities, early literacy skills, emergent writing skills, and to adapt a suitable pencil grip known as a tripod grip to prepare them to be successful writers of the future. This is supported by the new curriculum for Wales progression steps one literacy and language development and physical health and wellbeing (Welsh Government, 2019) as well as the literacy and numeracy framework known as the LNF (Welsh Government, 2013).

As pointed out by Welsh Government (2021) when children progress in these areas the progression is depicted as a coherent continuum. National Literacy Trust (2019); Welsh Government (2021) point out how children develop holistic knowledge and meaningful use of language, literacy, and communication in various ways, including listening, reading, speaking, and engaging.

Moreover, the idea of the pencil of strength began when a pre-writing program was introduced to me in an early year setting in the United Kingdom. The program was called Squiggle whilst you wiggle by Shonett Bason (Bason, 2021).

The program is the pedagogy for encouraging early mark-making abilities, fine and gross motor skills and writing skills to enable children to become successful writers. Furthermore, the program involves a physical and melodic approach to writing, concentrating on one action at a time which requires a variety of skills from children, such as hand-eye coordination, mark-making, and a secure pencil grip (Bason, 2021).

Based on findings from Kandil, Elkhair, and Ameen (2016); Hong, Jung, and Kim (2016) states children spend 30% to 60% of their school day engaging in fine motor skills that require a pencil grip. Therefore, the pencil of strength will be a great writing implement to introduce to schools to support children's early literacy and fine motor skills to help them become successful.

Links to early years

As an entrepreneur who is passionate about children's development, the pencil of strength will be the ultimate tool for adapting a suitable pencil grip known as the tripod grip and will support children's literacy development linking to progression step one of the new curriculum for Wales Language, literacy and communication and strand 3 of the literacy and numeracy framework known as the LNF (Welsh Government, 2013; Welsh Government, 2019). Based on findings the new Curriculum for Wales was published in January 2020 and phased in from September 2022 and is committed to providing high-quality education for children in Wales ([Welsh Government, 2020b](#)).

A study by Shah, Shah and Ved (2022) expresses how early success in emergent writing is important for children's future and academic success. Similarly, Steele et al (2015) highlighted how children must learn fundamental skills for emergent writing. It is evident that children in their early years practice their pencil grip and early mark making by making scribbles, then straight lines, and lastly curved lines (Steele et al., 2015). According to research from EYR Team (2018) mark-making is essential for a child's development. It not only teaches children how to hold a pencil correctly, but it

also helps them prepare for writing. Furthermore, children's early writing opportunities provide opportunities to establish understanding and skills for reading and writing which children in the early years will need as they progress from progression step one, two and three within the foundation phase.

Moreso, writing requires attention to both spoken language sounds and marks on the page, with letters representing spoken language sounds. When children mark make they leave visual traces that allow us to deduce their current understanding of these concepts (Gov.UK, 2023; Rowe and Wilson, 2015). This is supported by Maria Montessori who describes writing as a natural phenomenon (Sophia and Valdez, 2017).

In addition to this Montessori (1936) discovered that young children naturally learn to write before they learn to read and children with good secure fine motor skills perform better in writing and reading assessments as their emergent writing develops (Dinehart, 2015; Sophia and Valdez, 2017).

Moreover, research suggests writing is a fundamental life skill that children learn in school and unfortunately difficulties with emergent writing within the early years range from 10% to 34% (Schwellnus, 2012). A further study highlights how writing issues do not resolve without intervention and impact 10 to 30% of school-aged children. Therefore, failure to achieve writing competency throughout the school-age years frequently has long-term detrimental consequences for both academic success and self-esteem (Schwellnus, 2012). In relation to this, attempts to improve literacy skills in Wales have received greater focus over the last two to three. Therefore, the Welsh government prioritises literacy in education (Dauncey, 2013; Welsh Government, 2012). Based on findings literacy will remain a priority in the new Curriculum for Wales, as one of three mandated cross-curricular skills along with Numeracy and Digital Competence (Dauncey, 2013). Therefore, the pre-writing programme Squiggle whilst you wiggle together with the pencil of strength will prepare children for writing, support their literacy development and will strengthen the muscles in their hands, allowing them to acquire a tripod pencil grip to overcome writing difficulties (Biju et al., 2020; Ojigbo and Odokuma, 2019; Wood, 2022).

Benefits of the pencil of strength

The benefits of the pencil of strength are to support children's literacy development, emergent writing, fine and gross motor development and help children to adapt a correct pencil grip from as early of the age of 3 to the age of 17 years old in a fun and practical way (Bason, 2021) as well as supporting the pre-writing program known as squiggle whilst you wiggle. As stated by Shah, Shah and Ved (2022) teaching emergent writing correctly, including adequate pencil grip, is merely one external factor that affects literacy development throughout the early years. Reflecting on this the pencil of strength will support young children to develop a dynamic tripod grip as pencil grips have been shown to have a major influence on early development (Welsh Government, 2019).

Furthermore, according to research the most common pencil grip is the dynamic tripod grip (Ojigbo & Odokuma, 2019; Tassoni, 2014; Schwellnus, 2012). The pencil of strength is designed to support the tripod grip from an early age, as it is thought to develop between the ages of 4 and 6 years old.

Biju et al (2020); Ojigbo and Odokuma (2019) highlight four types of pencil grips that have been identified and evaluated for functional writing which are the dynamic tripod, dynamic quadrupod, lateral tripod, and lateral quadrupod. Based on findings the dynamic tripod grip has been the most appropriate pencil grip within the early years because it allows for effective distal pencil movements and is proven to reduce muscle tension, which can lead to fatigue. This grip involves the thumb, index, and middle fingers working together as a tripod (Biju et al., 2020; Ojigbo and Odokuma, 2019) which can be developed by using the pencil of strength.

Moreover, Mackenzie and Hemmings (2014) point out how literacy abilities are important for academic performance, and early competence with writing being an important aspect of literacy development. Similarly, Dinehart (2015) highlights how early writing skills are rapidly gaining recognition as a key school skill linked to later academic achievement. However, given how important emergent writing is for improving children's writing and literacy skills, there is limited research on how to best educate young children in this area (Sophia and Valdez, 2017). According to Vgotsky (1978) cited in Gerde, Foster and Skibbe (201); Walker (2010) early writing develops in a social context as children engage with adults and their surroundings to use and make meaningful prints.

Reflecting on this using my knowledge and previous experience, the pencil of strength will be the ultimate implement to introduce to the education sectors to support children's overall literacy development and fine motor skills.

Challenges and barriers of the pencil of strength

There are many possible barriers to consider when introducing the pencil of strength which can involve the lack of school funding, poor budgets, digital technology, insufficient funds, children having poor muscle development, competitors trying to compete with my product, and the risk of my product not being successful on the market.

As pointed out by NHS (2020) if children have inadequate muscular development this can lead to an unnatural grip, which can be difficult to rectify over time. Huffman and Fortenberry (2011) also point out how writing success is heavily dependent on the development of fine motor abilities. A further study by Lifshitz & Har-Zvi (2015) highlights how muscle development for emergent writing is a thorough process that begins with motions of the entire arm and develops to very sophisticated fine motor control at the fingertips).

Moreover, school budgets may be a potential barrier to stakeholder's sales. Further findings show councils across the United Kingdom are facing substantial budget cuts due to growing inflation and cost restrictions (Wightwick, 2023a). There are 39 Cardiff schools with deficit budgets for 2023-24 (Peskett, 2023; Wightwick, 2023). Moreover, financial support for the pencil of strength will be entirely dependent on funds from the Welsh business start-up grant, which can be a concern due to failure to

get appropriate financing for the product can undermine its chances of success and become a challenge for entrepreneurs (Luidinga, 2014; Failory, 2022). Reflecting on this the Small Business, Enterprise, and Employment Act 2015 will be considered to provide opportunities for the pencil of strength to compete, obtain financing and develop and overcome any financial barriers (legislation.gov.uk, 2015; Gov.UK, 2015).

Moreover, in recent years, the manner of writing has undergone a drastic shift, digital writing instruments connected with the usage of tablets and computers are replacing handwriting. It is believed that children today may have their first writing experiences by typing on a computer, or a tablet long before they grasp handwriting (Kiefer and Velay, 2016). Although despite the growing use of computers, writing remains a important life skill that demands more attention from schools and healthcare practitioners (Accardo, Genna and Borean, 2013).

Stakeholders

The pencil of Strength will be marketed to stakeholders of education settings and practitioners to help support children's literacy development and to adapt a tripod grip from an early age. To support the marketing of the pencil of strength to the 50 schools that have shown an interest a sales force and the marketing 4P's will be employed. The 4 P's market model, price, product, place, and promotion will be employed to acquire new markets and promote sales to the stakeholders (Bag and Biswas, 2013; Londhe, 2019). Furthermore, as highlighted by Bag and Biswas (2013); Londhe (2019) the 4 P's model applies to all types of marketers who create product-oriented marketing strategies by carefully combining marketing mix components.

Therefore, visits to the schools in Cardiff will be arranged using an outside sales force to help to assist engage and promote the product. All information for the pencil of strength including costings will be provided and a demonstration of how to use the product in conjunction with the prewriting program will be delivered to promote the product sales and any queries from stakeholder's will be responded to. This will be utilised using the entrecomp framework to establish a shared vision and language among stakeholders and encourage evidence-based practices (Bacigalupo et al., 2016). This will help to reach out to the audience and develop relationships and trust with the stakeholders to successfully market the pencil of strength (Ingram et al., 2019; Smarter, 2024).

Moreover, the pencil of strength will be marketed to stakeholders at a low cost of £2.95. A low-pricing approach is extremely useful for businesses that offer value to their clients and is believed to draw more customers (Prisync, 2024). However, it should be noted that the low cost strategy may have a negative influence on consumers because they may assume the product's quality is not as good as your competitors (Prisync, 2024).

Moreover, finances from the Welsh government start-up grant will be used to help successfully market the pencil of strength in Wales (Welsh Government, 2020b). The start-up grant will cover the costs for materials to produce the sales of the 100 pencils and marketing costs. The Pencil of Strength will be a small-scale nonprofit-based business to support education settings and children's development (Huston, 2020) due to the impact of the school deficit budgets set for 2024 (Peskest, 2023; Wightwick,

2023). The benefit of being a nonprofit organisation is that the pencil of strength has the potential to change the lives of others throughout their education (Gaille, 2020).

Expertise

Moreover, as a qualified nursery practitioner with over 14 years of experience in the education sector, I feel I will be the best entrepreneur to market the pencil of strength to educational companies Epso, Hope and online platform Amazon to stakeholders in education aimed for practitioners and children to support children to become successful writers of the future. Moreover, having a strong understanding of child development, the progression steps of the new curriculum, and having delivered the pre-writing program for over 4 years will help me promote the pencil of strength and offer my expertise when stakeholders ask for advice on how to best use the pencil of strength in conjunction with the squiggle while you wiggle program to support children's development in the early years. In relation to this Byrnes and Wasik (2019) emphasise the importance of the role of a practitioner in supporting a child's literacy development.

Part 2 How will the pencil of strength benefit aspects of the early years?

The Welsh Government seeks to ensure that literacy is central to learning in all schools in Wales. This was reflected in the 20-point action plan presented by the then Minister for Education and Skills, as well as the Improving Schools - Executive Summary (Welsh Government, 2012). Improving literacy in schools has been a priority for the Welsh Government since the 2009 Programme of International Student Assessment (PISA) results (Dauncey, 2021). The Minister of Education has made boosting literacy standards in schools a top goal (Welsh Government, 2013).

According to national data given by the eyfs profile, literacy is the lowest level of attainment of all seven learning areas at the end of the reception year. Furthermore, the survey also found a 13% disparity in writing between girls and boys (Gould, 2017). According to the most recent findings in 2018 Wales reading score 483 remains the lowest in the UK, putting it further behind the other nations. (Dauncey, 2021; Ingram et al., 2023).

Therefore, implementing a successful mark-making tool as early as possible within the early years will help to support children's literacy development (EYR Team, 2018). Gould (2017) suggests young children benefit from the guidance of trained and qualified practitioners as they acquire literacy skills (Gould, 2017). Reflecting on this, using the sales force for marketing the pencil of strength will provide guidance and training for practitioners to best support the children when using the pencil of strength. Furthermore, practitioners can improve children's growth by providing learning opportunities in their zone of proximal development (Kurt, 2020). This central component of sociocultural theory represents the mediation of the gap between a child's current skill level and their prospective ability level (Vygotsky 1978). Bingham, Quinn and Gerde (2017) suggest when a teacher encourages a child's writing in a preschool classroom, they bridge the gap between the child's current comprehension and future development.

Links to current practice

The curriculum of a school encompasses everything a child encounters to achieve the curriculum's four goals. As stated by the Welsh Government (2020) it is not merely what we teach, but how we teach, and, most importantly, why we teach it. The Curriculum for Wales framework is a clear description of what is important in providing a comprehensive and balanced education (Welsh Government, 2020). In addition to this, the pencil of strength will support the progression steps of the new curriculum for Wales to develop children's literacy development.

Moreover, with the coming of the Education Reform Act 1988, literacy was reestablished as the main focus for primary education. The subject was, however, still to be concerned with the teaching of the three language modes of reading, writing and talk (Wyse, 2013). As highlighted by Donaldson (2015) Literacy is commonly recognised as the necessary foundations of education.

Furthermore, the pencil of strength links to strand 3 of the LNF framework writing across the curriculum, which focuses on two elements: arranging thoughts and information and writing accurately, which are broken into four components which are meaning, purpose, and audience, structure and organisation, language and grammar, punctuation, spelling, and handwriting (Welsh Government, 2013). Mackenzie and Hemmings (2014) point out how literacy skills are important for performance, and early writing success is a key component of literacy development. As stated by the Welsh Government (2015) if children lack fundamental literacy skills, they will be unable to access the curriculum's breadth and the variety of chances and options it provides. Therefore, the pencil of strength is aimed to help children improve early literacy skills by adapting a tripod grip and strengthening their muscles as early as possible to help them make progress with the progression steps of the new curriculum for Wales and the LNF framework.

The LNF's purpose is to help the Welsh Government accomplish its goal of ensuring that children in Wales have good literacy abilities during their school years. As a result, it is important that the development of these skills are integrated across the curriculum, and that all practitioners realise their important role in helping children acquire literacy skills (Welsh Government, 2012). Furthermore, the Pencil of strength will support school's handwriting policies to help children develop a fluent, legible, and individual style that may be used for various reasons and encourage children to utilise a tripod pencil grip (Legal information, 2018; St and School, 2012).

Conclusion

When a practitioner encourages a child's writing in an early year's classroom, they bridge the gap between the child's current comprehension and future development. Practitioner's professional development in literacy has been shown to have a favourable impact on children's literacy outcomes. (Bingham, Quinn and Gerde, 2017). Although we know significantly less about how practitioner practices influence children's literacy development, a recent study discovered that practitioner's practices, such as modelling and supporting children during writing opportunities, predicted children's

literacy results (Gerde, Bingham and Pendergast, 2015). What is uncertain is which types of support are necessary to promote children's writing development (Bingham, Quinn and Gerde, 2017).

Therefore, the pencil of strength will be a small scale business opportunity implemented across the early years to support practitioners and children's literacy development. As Jones (2022) points out the transition into writing is an important moment in a child's early years. A further study from National Literacy Trust (2019) shows how in the past 18 months, language and literacy development in young children has gained significant attention from government agencies.

Therefore, the pencil of strength will be the ultimate mark-making tool to support children's literacy development and will seek advice and support from Local Authority Trading Standards to ensure the product is safe for its stakeholders alongside the recommendations from the General Product Safety Regulations 2005 which requires all items to be safe in normal or reasonably anticipated use (Gov.UK, 2019). Moreover, the pencil of strength will be created for the UK market, have suitable labelling and instructions for safe use and conform to safety criteria to minimise risks (Gov.UK, 2019).

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