

Online Teaching Method in Response to the Pandemic-StoryChopsticks Teaching Method

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Abstract

The recent COVID-19 virus pandemic has inevitably caused many children's education centres to shift their physical classes online. Plenty of parents, as well as teachers, struggle to find the balance between providing the optimum amount of offline and online education for their children. Indeed, the real physical environment for childhood education still remains a priority due to its indispensable contribution to a child's physical & mental development. Now, the unresolved issue faced by many is finding the perfect type of education for their child while being kept at home, due to the pandemic. In December 2019, StoryChopsticks developed a unique pedagogy to teach young kids the Chinese language through story creation. The classes are 100% online yet their method cultivates the child's interest in learning and creativity. The curriculum that's been designed meets the standards of Singapore's education, with an ongoing mission to build comprehensive cloud solutions widely used by future schools. Their method starts off with a storytelling session by a teacher and is followed by recalling keywords from the story through the use of flash cards. The child's interest to learn is piqued by encouraging them to draw, speak, and write the words they learnt throughout the class. Then, the children are guided to create their own stories using the keywords they have learned. This way, the children's imagination is constantly stimulated. StoryChopsticks has also launched their first Kidspublish programme where they give children the opportunity to become young authors. StoryChopsticks constantly highlights that the creativity of a child should be cultivated from a young age. A creative person never lacks the chance to create opportunities for themselves. This is important especially when AI has started to replace many aspects of our lives. Only the creative ones will be invaluable in the future. This paper discusses StoryChopsticks' online teaching method which meets the needs of children's education.

Keywords: creativity, storychopsticks, pandemic, teaching method, preschool education

1. Introduction

The COVID-19 pandemic has caused severe societal and economic challenges worldwide. Many national authorities and international health agencies are implementing various strategies to mitigate the spreading of this virus through travel restrictions, city lockdowns, and public facility closures (Maqsood et al., 2021). Despite efforts to mitigate the negative impact of COVID-19 through vaccination, it spread rapidly throughout the world, affecting the majority of human activities, including but not limited to the economic landscape, health and sanitation issues, environmental protection, social aspects, and educational system (Constantin et al., 2021). All levels of education from early childhood (EC) to tertiary education have been closed, affecting access to education for more than 90% of the world's student population (UNESCO, 2020).

Educators are not ready to adjust their curriculum materials to allow students to participate in online education (Lau & Lee, 2020). Some schools and families are still lacking the necessary resources and infrastructure required for a distance learning programme, which may have a negative impact on both children and parents. Children require parental involvement during the initial introduction of online learning, and parents must guide their children to reap the benefits of the programme. Inadequate preparation for this condition can increase the chances of parents experiencing stress and burnout, while children are exposed to excessive screen time, which can harm their physical development (de Jong et al.,

2011; Griffith, 2020).

The recent COVID-19 virus pandemic has affected both parents and teachers in finding the right balance of offline and online education for children. Because of its indispensable contribution to a child's physical and mental development, the physical environment for childhood education remains a priority. According to a recent study conducted in the United States, hybrid and traditional learning are preferred modes of learning over a full online mode (Limbers, 2021). The result suggested that families with preschool children face more stress and challenges than those with older children in primary or secondary school (Dong et al., 2020). Based on these findings, traditional class suspension and online learning both contributed to lower parental satisfaction with EC education.

The contentious issue of online-based learning for pre-school children has become an unresolved issue for many families around the world, opening the door to an alternative type of education through an innovative online learning approach. StoryChopsticks created a unique pedagogy for teaching young children the Chinese language through story creation. Although the classes are entirely online, their method fosters the child's interest in learning and creativity. The curriculum has been designed to meet Singapore's educational standards, with an ongoing mission to build comprehensive cloud solutions that will be widely used by future schools. StoryChopsticks consistently emphasises the importance of cultivating a child's creativity from a young age. This paper elaborates StoryChopsticks' online teaching method meeting the needs of children's education. The rest of the paper will be divided into some sections: 1) problems in language learning, 2) StoryChopsticks methodology, 3) discussion, and 4) conclusion.

2. Problems in Language Learning

The primary goal of language instruction is to master a language, and for those learning a second language, this process can bring significant problems for children and/or parents. Singapore, for example, has mandated English as the primary medium of instruction in all school subjects since the 1970s, with the Chinese language serving as a complementary language for Chinese ethnic students (Soh, 2020). This implementation is argued to have highly contributed to the low performance of students at all levels of education in Singapore in terms of Chinese mastery.

The difficulties associated with mastering the Chinese language in Singapore can be attributed to either the children's attitude or motivation. It is argued that learning Chinese was not necessary to preserve Chinese culture or to provide benefits outside of the educational institutions or simply because of a negative experience with the Chinese language (Khor & Yip, 1985). Students in Singapore also face a tedious curriculum during their school years, which demotivates students to learn and fosters a loss of motivation in the language in the long run. The Chinese language contains thousands of characters, all of which have a similar pronunciation, and the meaning is highly dependent on the difference between Mandarin's four tones (Soh, 2020). Mastering such complex language require huge efforts and continuous learning from the children.

It is argued that language should be taught in a fun environment rather than a stressful and anxious one (Soh, 2020). Numerous children quickly master playing musical instruments as a result of the cheerful and relaxed lessons, rather than the emphasis on teaching theoretical foundations as the primary focus of mastering a particular instrument. This approach can also be used to educate children on how to improve their Mandarin proficiency. Story-based programs have long been used in foreign language education and can be effective at increasing learners' motivation and participation (Garvie, 1990). Children can learn through interactive storytelling and dramatisation, incorporating cultural content and activities into language lessons.

3. “Imagin-Learning” Methodology of StoryChopsticks

StoryChopsticks attempts to break the mold of traditional language learning programmes that failed

to engage children by providing unlimited collaboration between participating children across geographical boundaries. Those young learners who have access to the internet can learn and share Chinese lessons with their counterparts all over the world. StoryChopsticks provides engaging Chinese learning methods such as storytelling, flashcards, and story-making practices. Children are encouraged to actively participate in the learning process by seeing, touching, creating, and promoting what they learn in order to boost their natural creativity and have exciting learning experiences. The platform also assists children in creating their own stories, allowing them to create a product that can be printed and published.

The StoryChopsticks method began by breaking down a foreign language into small building blocks (keywords) and enabling users to construct complex structures (stories). The StoryChopsticks flashcard-based curriculum is aligned with the Singapore Ministry of Education's early childhood learning objectives. The STEM stories, story building, and drawing activities in StoryChopsticks are intended to expand children's imagination and curiosity through simple investigation and idea generation, as well as to increase the excitement for language activities. Additionally, other flashcards and stories in the numerical category are expected to strengthen students' understanding of fundamental shapes, spatial concepts, numerical patterns, and relationships, as well as their ability to match and sort such cards. Other cards focus on social and emotional development. They will learn how to manage their emotions and behaviors, as well as how to communicate, interact, demonstrate empathy, and develop relationships with others. They will also learn how to accept responsibility for their actions.

As creation-based learning involve a complex cycle, StoryChopsticks designed live sessions led by highly trained early educators to engage children of various ages. Children between the ages of 3 and 4 years old will focus on practicing basic daily-use Chinese and writing those words down to create children's stories. At the age of 5-7 years old, StoryChopsticks teachers will use story creation materials with a variety of themes, including but not limited to space, jungle, pirate, underwater, and fairytale, to help students increase their Chinese vocabulary in an exciting and fun learning environment. And older children, between the ages of 8 and 12, will be encouraged to apply what they have learned in previous sessions by creating, illustrating, and writing their storybooks. In the end, children can create new stories based on their preferences and imagination and are facilitated through intellectual property. Figure 1 illustrates the structure of learning that StoryChopsticks has provided.

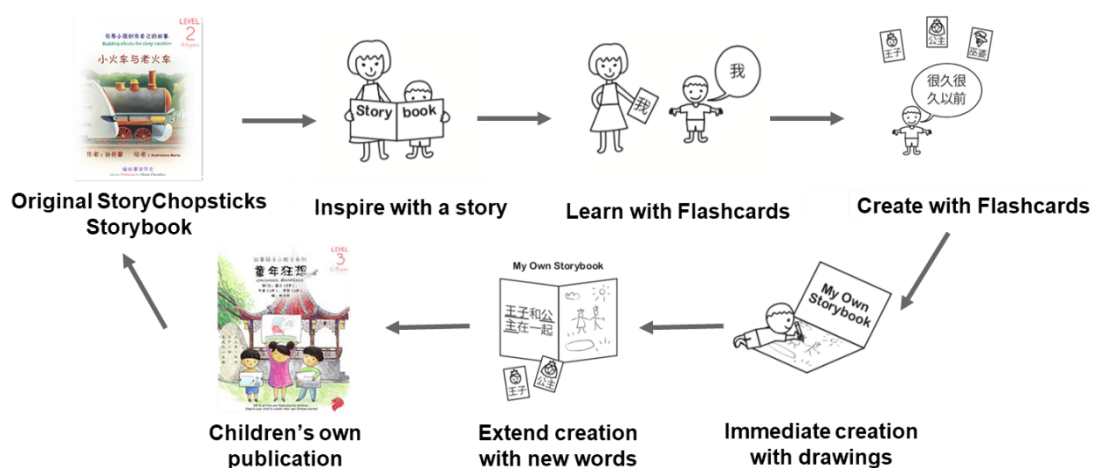


Figure 1 Imagin-Learning Methodology of StoryChopsticks

3.1 StoryChopsticks Products

The StoryChopsticks story set contains beautifully illustrated original Chinese stories, flashcards, and a drawing book. It is designed to guide young learners through the story-creation process. Each StoryChopsticks story set includes three free lessons to guide children in using the materials, developing an interest in the Chinese language, and eventually becoming self-directed learners.

Each set is designed to teach children an age-appropriate topic. For instance, in the Red Yellow Blue story set, the flashcards will emphasise the recall of these colors and how they can be combined to create new tones. Additionally, the teacher will inspire children with a handicraft color story and will invite students to take turns telling their own. This process is intended to pique children's interest in Chinese and to engage them in hands-on, self-directed handicraft activities. Children's verbal communication skills are also honed through this method of learning, and parents are encouraged to participate particularly during the session in order to maximize the output of this unconventional learning process.

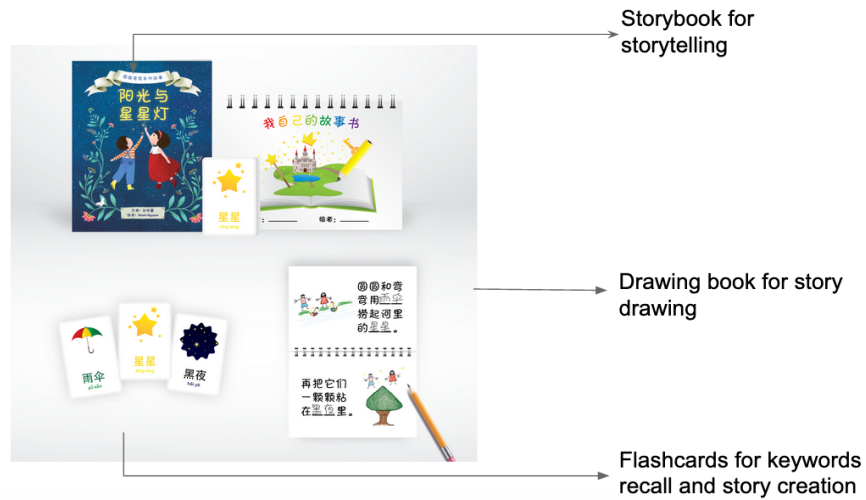


Figure 2 StoryChopsticks Products

3.2 StoryChopsticks Online Engagement

StoryChopsticks recently expanded the online learning model with the introduction of StoryLand. It is a two-dimensional virtual school on the Gather platform that promotes socialisation, enhances Chinese learning by word recognition, and allows interaction with friends and teachers. Gather is a video chat platform designed to make virtual interactions more human by combining retro video games with video chat. It gives us the ability to create an avatar and explore a 2D map.



Figure 3 StoryLand Virtual School

StoryChopsticks' original story material and publication of children's creations further enhance

offline learning. The platform has been creating a social and contextual fabric for language learning by weaving threads from the physical and digital worlds. Its distinctive pedagogy was delivered by native Taiwan educators through the use of a virtual world akin to Disneyland, StoryLand. StoryChopsticks is the world's first educational institution to use the metaverse—a virtual reality space in which users can interact with a computer-generated environment and other users. The method is used because metaverse incorporates elements of immersive learning, gamification, and imagine-learning, thereby providing children with an experience-based learning process.

When children enter StoryLand, they will have the sensation of being in school, complete with classrooms, schoolyards, and everything else labeled in Chinese. The virtual environment will direct children's attention to StoryLand activities, as an immersive learning process is more enjoyable and engaging. StoryLand incorporates video game elements, providing visual stimulation and room for imagination. The existence of StoryLand is expected to expand the StoryChopsticks learning method, which was previously conducted and through video conference.

Gamification, as a process of adopting new experiences, has the potential to significantly increase younger children's engagement, motivation, and comprehension of any given content (Griva et al., 2010). The concept should not be used in conjunction with serious games, game-based learning, or any other type of computer simulation (Glover, 2013). While all of these concepts incorporate game elements into their development and final product, gamification focuses on user engagement, motivation, and behavior to accomplish a learning objective rather than to achieve a predetermined target or real-world training for the user (Kiryakova et al., 2014). Gamification can pique students' interest in a specific concept or activity on the curriculum, exposing them to the possibility of learning. Adoption of game mechanics in educational settings has been shown to increase children's ability to acquire new skills and knowledge (Glover, 2013).

Gamification, on the other hand, is not the only strategy for increasing student engagement in language mastery. Additionally, it is necessary to expose children to meaningful experiences and to use affordable yet high-quality materials that encourage children to participate voluntarily in the learning process. Quizzes and interactive games, such as those used by StoryChopsticks, have also been shown to improve children's behavior and attitude toward language learning experiences. Finally, a platform that combines advanced – technology through the use of gamification, story-based learning, and experienced early education teachers is expected to foster children's learning goals based on their age development.

3.3 KidsPublish

StoryChopsticks consistently emphasises the importance of nurturing children's creativity from an early age. As a culmination of children learning within the platform, young Chinese language learners collaborate with their facilitators on their very own Chinese stories, experiencing both the joy and pain of the creative publishing process. The first is titled *Zongzi-Child Rhapsody* and was written and illustrated by three Singaporean and American students (StoryChopsticks, 2021).

StoryChopsticks recently developed non-fungible token (NFT) applications for digital artwork created by students. It is a unique and non-transferable piece of data stored on a digital ledger. Through the use of blockchain technology, NFTs can be used to represent easily reproducible items such as photographs, videos, audio, and other types of digital files as unique items and to establish a verified and public proof of ownership. This strategy aims at providing students digital ownership of their work and to enable StoryChopsticks to grow a community of young creators who receive appropriate credit for their work.

4. Discussion

EC education has faced many challenges from the quality offered by both government and private entities in terms of accessibility and human resources. Besides technical and policy challenges, preschool

education around the world also faces an educational gap between one family to the others due to many factors including but not limited to economic, culture, language, and racial status (Dias et al., 2020). The challenges were exponentially increased in the past year for those involved in the education sector due to the COVID-19 pandemic.

The pandemic has motivated parents and educators to seek an optimal balance between physical activity, online learning, and children's emotional development. Parents must prioritise their time between work and their children's development. This abrupt change has left parents unprepared for the transition from face-to-face educational programmes to remote learning, resulting in stress and burnout. In the long run, this condition can also affect the children in various ways including health issues, domestic abuse, family conflict, and educational gap (Dias et al., 2020).

While some institutions and teachers have transformed their services to families in a relatively short time through the use of online learning, other institutions and preschool teachers are more cautious and frequently skeptical of the use of technology in EC teaching practices. They believed that children's physical development would suffer as a result of their use of digital resources, such as vision and hearing problems or obesity (McVeigh et al., 2016). When compared to those with real-life experiences or hands-on stimulation, online resources without parental support have a higher potential for a negative impact on emotional development (Lisenbee & Ford, 2017).

The use of StoryChopsticks' online-based learning, which promotes language mastery through storytelling and story-based creation, can benefit children with diverse and unconventional learning. A combination of digital resources and materials already present in the children's home can alleviate parents' concerns about accommodating offline resources (Borup et al., 2020). Storytelling and story-based creation not only teach children to recognise the characters, symbols, and shapes assigned to them, but also develop an interest in writing and learning new words, and arranging them into narratives prior to creating their own unique stories based on creative and imaginative thinking (Georgopoulou & Griva, 2012).

The use of StoryLand, which combines learning and sharing activities with their friends and educators, can boost children's confidence and significantly improve their knowledge of collaboration and communication in the long run. Instead of focusing on instructional materials and programmes generally used by traditional pedagogies, this virtual school breaks geographical boundaries by providing children with exciting concepts and materials, taking into account interpersonal interaction between children and peers as well as their teachers.

To ensure that children's developmental phases are met, the use of online learning for EC education must take into account critical factors such as age, content, and delivery of learning materials (Hu et al., 2021; Johnstone et al., 2006). It is the responsibility of teachers and parents to guide children in accessing appropriate content and platforms for their developmental age. Toxic, harmful, and inappropriate materials for children are prohibited and must be eliminated as soon as possible (de Jong et al., 2011). The use of StoryChopsticks' online learning platform allows children to maintain social relationships with their peers while also meeting their physical, cognitive, emotional, linguistic, and intellectual needs.

5. Conclusion and Future Research Direction

COVID-19 has shifted almost all social activities from face-to-face interaction to online learning. Although it has become one of the solutions for short-term learning, those involved in pre-school education face a significant challenge in creating a learning environment that engages and motivates children. Most parents generally hold negative beliefs and attitudes toward the values and benefits of online learning, preferring traditional learning in EC educational settings. This is because they were neither trained nor prepared to embrace online learning. Because of the hardship caused by the COVID-19 pandemic, they have become more resistant to online learning at home.

To keep students from becoming bored, educators must renew their teaching methods and avoid

relying on the same learning media. Storytelling and creation-based learning can use gamification to facilitate the shortcomings of online learning and improve the quality of education in the future. The adoption of gamification can be a fun way for students to learn a variety of skills in the context of education. The concept of storytelling and creation-based learning can also promote communication, interaction, and even competition among children. It has been demonstrated that incorporating the two concepts into the learning process potentially increases children's interest in online learning. Others include high-quality narratives that will help the children's creativity and imagination.

StoryChopsticks is one example of how creation-based learning can be used in education. This platform connects teachers and students in distance learning through entertaining and unconventional media and learning methods. Children can learn in virtual classrooms with teachers via video on the platform to explore a virtual environment written in Chinese characters. Children can also use the chat feature to socialise with friends from other countries. All children will be able to access high-quality education from anywhere thanks to virtual learning.

This study showed that online learning unavoidably becomes an integral part of EC education worldwide. The promotion and implementation of online learning during the pandemic and post-pandemic era must be carefully considered and well planned by stakeholders in the education sector in order to support families and their children. This means that when suggesting an online class to young children, promoters should consider the complexity and diversity of families (e.g., more than one child learning online and parents working full-time at home), and provide parents with flexibility and convenience. Furthermore, the provider of online learning is advised to improve the overall design of online programmes for a better user experience from the perspective of both parents and children. Also, a collaboration between government institutions, non-governmental organisations (NGOs), donors, and interested parties is strongly encouraged in order to increase the penetration of online learning in society, improve early education during and after the pandemic, and ensure a future generation of creative and imaginative children.

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