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A Literature Review

Maide Şila TİFTİKÇİ

Specifics of Education of Children with Spinal Muscular Atrophy

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Abstract

The school represents a natural social environment in which children make use of their potential and establish relationships with peers. Therefore, it plays a very important role in the life of children and affects the quality of their life. The education of a child with spinal muscular atrophy is always based on the level of the child's preserved abilities. The primary task in education is to provide technical compensation for the loss of movement and use appropriate interventions to ensure the social aspects of inclusion. In some children with a more severe course of the disease, it is necessary to provide assistance that includes healthcare aspects. Although a child with SMA faces many psychosocial challenges, other actors in school can influence how the child addresses them. Therefore, the task of all actors in school is to try to create a safe environment that respects and supports the uniqueness of every pupil including those with spinal muscular atrophy and provides a positive climate for the child's adaptation and a successful educational process. This theoretical paper presents the specifics of education of children and adolescents with spinal muscular atrophy for whom regular school attendance is not practicable. The paper presents the main topics related to the education of children with spinal muscular atrophy including their special educational needs as well as the practical knowledge and social-emotional aspects in the education of this target group.

Keywords: spinal muscular atrophy, child, education, inclusion, school, special educational needs

1. INTRODUCTION

The school plays an important role in the life of children and adolescents¹. Some authors even suggest that there is a certain correlation between education and quality of life^{2,3}. In one respect, the school is a natural social environment in which the child has the opportunity to fulfil the needs related to personal development, self-determination, social inclusion and interpersonal relationships, rights as well as well-being (emotional, physical, material). Shalock (2004) defines these needs as quality-of-life domains⁴. In another respect, the school offers education, which is in contemporary society a certain sign of a successful and high-quality life². The link between education and quality of life is also confirmed by the results of a study by Aksaralimitsunti and Sanmaneechai (2022)³. The results show that one of the factors that decreases the quality of life in Thai children with spinal muscular atrophy (SMA) compared with their intact peers is, among other things, the inability to attend school. Taking this into consideration, relevant school actors should promote the application of the methods and strategies that respect and support the uniqueness of every pupil and create a positive climate for a successful educational process¹.

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This paper was written in response to a literature search for a scoping review on the education of children with SMA which suggested that this topic deserved more research attention. No study, scientific paper or publication in English was identified that would provide a comprehensive picture of the topic. Therefore, the following text provides an insight into the specifics of education of children with spinal muscular atrophy. The text is divided into topics that are closely related to the education of these children and are generally applicable in the educational and psychosocial areas. At the beginning, the term spinal muscular atrophy including the related health restrictions are defined in order to provide the necessary context. Then the paper presents the specifics of the education of these children, their special educational needs including relevant recommendations as well as the social-emotional aspects closely associated with this type of education. In the conclusion of the paper, a multidisciplinary team involved in the complex care for children with spinal muscular atrophy is briefly presented.

2. SPINAL MUSCULAR ATROPHY

Spinal muscular atrophy is a rare genetically conditioned neuromuscular disease, typically diagnosed at a young age, and is manifested by progressive muscle weakness. SMA is caused by degeneration and loss of the motor neuron in the spinal cord and brain stem which is responsible for conscious muscle movements⁵. The clinical picture of children with SMA ranges from mild muscle weakness to complete paralysis. Children with SMA often suffer from scoliosis and have problems with coughing, breathing and bulbar functions⁶. They have difficulty sitting and standing alone, they are often unable to walk alone and due to the weakness of the intercostal muscles they are at a risk of premature death from respiratory failure⁷.

At present, the literature describes four SMA subtypes according to the time of origination and severity^{5,8}:

- Type 1 SMA (Werdnig-Hoffmann disease) is the most common subtype and the most severe form of SMA. It occurs during the first 6 months of life. It is characterized by severe generalized weakness, hypotonia, impaired respiratory function, problems with alimentation and difficult swallowing⁶. Life expectancy generally does not exceed 2 years³.
- Type 2 SMA (Dubowitz disease) is usually diagnosed at the age of 6 to 18 months. These children usually reach a certain level of motor development, such as sitting and crawling, but not standing or walking⁹. They often suffer from dysphagia and scoliosis. Children with a more severe form of SMA 2 are dependent on artificial ventilation. Most persons with type 2 SMA do not reach 25 years of age but some live much longer as a result of better care and higher quality of life³.
- Type 3 SMA (Kugelberg-Welander disease) is the least severe form, typically diagnosed after 18 months of age. Although children have difficulty with balance, some are able to walk without help and most of them achieve standard adulthood⁹.
- Type 4 SMA is manifested in adulthood. It is defined by difficult walking and weakness of the upper and lower limbs⁹. This type accounts for less than 5% of all SMA. Most patients with type 4 SMA remain ambulatory³.

3. SPECIFICS OF EDUCATION OF CHILDREN WITH SPINAL MUSCULAR ATROPHY

The above suggests that SMA in children can be of various severity. According to Bartošová et al. (2012), the medical classification of SMA types in special education is only indicative. The provision of care, service or education is always based on the current level of preserved abilities⁷. During the entire educational process, it is necessary to respect the special educational needs of every single child¹⁰. Čadová (2020) defines five key areas that are the basis for the education of a child with a serious illness. These areas include feeling socially integrated, performing activities that are manageable, forgetting about illness, restoring physical condition and succeeding compared with peers¹¹.

3.1. Special educational needs of children with spinal muscular atrophy and recommendations for practice

In children with SMA, their cognitive functions are not primarily affected by the disease. Their intellectual abilities are average to above-average. These children often achieve excellent academic results^{5,12}. The only area that is affected is their perception associated with movement¹². Therefore, it is important to assess the degree of preserved movement, respiratory quality and the associated rate of fatigability. The aspect of fatigability can have a secondary effect on the perception of thinking as well as social-emotional aspects⁵. Bartošová et al. (2012) believe that regarding the preserved cognitive and intellectual abilities, emphasis on the learning content in the case of inclusion is secondary. The primary aspect in education is to provide technical compensation for the loss of movement as well as the promotion of the social aspects of inclusion⁷.

Progressive muscle weakness in children with SMA gradually leads to limited independence and can be a barrier to gaining specific practical experiences^{12,13}. In these children, assistance is often required during hygiene, dressing or eating⁷. Children with SMA often find it difficult to cope with the progressive loss of abilities and strength. They often try to manage things without help and reject the assistance of others. This can easily result in overload and aggravation of their overall health. Therefore, assistance must be offered in a sensitive way⁵.

Children with SMA use a mechanical or electric wheelchair which requires the provision of a barrier-free environment and adequate school equipment. This can include the removal of door thresholds and adaptation of the school and classroom for wheelchair users. Ideally, moving between floors should be minimized⁵ or a lift should be provided. Children with SMA need specifically adjusted educational aids to make the process of education easier, including, for example, laptops, tablets, special writing utensils, modified adjustable desks etc.^{7,10}

With respect to limb deformities and severe scoliosis of the spine, these children require special positioning during classes. Regarding the fact that their muscles are susceptible to fatigue, they should have the opportunity to leave the classroom at any time, relax as well as stretch their legs and back¹⁴. Kočová (2017) and Donoghue and Kraft (2019) suggest that children with SMA should have a special place to rest in school equipped with relaxation and positioning aids^{5,10}.

As a result of their disease, children with SMA have problems with respiration. Insufficient oxygenation of the body and brain leads to increased fatigability. This may result in occasional lapses of attention, slower working pace, headache and sleepiness^{5,7}. Teachers should take these aspects into account and give these children achievable tasks. The requirements placed on these children should be adequate to their capabilities and possibilities¹⁰.

At a later stage of their disease, some children with SMA require tracheostomy and artificial pulmonary ventilation⁷. In this case, it is necessary to provide school assistance that includes healthcare aspects. This may include, for example, regular extraction of mucus from their lungs. Children with tracheostomy cannot fully use their voice and can only whisper. Their voice should not be overloaded and the teacher should ask questions that require a one-word answer⁵. By its very nature, tracheostomy is an invasive procedure and can significantly affect the child's school life. According to a study by Bonraisin et al. (2020), tracheostomy in these children is often a barrier to school attendance¹⁵. It should also be added that the readiness of school systems for the education of children with this severe disease varies between countries.

As a result of their disease, children with SMA may often be absent from school. The reason for the increased absence in these children is typically examination or therapy as part of their treatment¹. Also, their susceptibility to respiratory problems increases their sickness rate⁵. Some children with severe SMA do not attend school at all due to the severity of their disease³. Donogue and Kraft (2019) recommend that schools where children with SMA are educated should have the Specifics of the Care Plan (for example adaptive equipment) and Emergency Planning defined. For children with SMA who are at risk of premature death, schools should have a special plan in case the child dies during school attendance. Last but not least, school workers who are in contact with the child must understand these plans. Only then they can provide adequate support to the child and the child's family and will be able to work better with their own emotions¹⁰.

3.2 Social-emotional aspects in the education of children with spinal muscular atrophy and possible risks

As has been mentioned, school attendance may have a positive impact on the mental well-being and psychosocial growth of the child^{1,16}. Thanks to appropriate interventions, the child may experience success in school and a positive experience that contributes to strengthening the child's self-confidence¹⁷. Although most children look forward to holidays, their return to school among peers is for many a sign of normal functioning. This also applies to children with SMA for whom the school is a natural environment for self-realization and for establishment of friendships. According to Kaffenberger (2006), a long absence from school due to illness may lead to social deprivation in peer relationships and to a loss of the regular school regime, which is a common part of the daily life of children or adolescents^{16,18}.

According to a study by Gosar et al. (2021), children with SMA do not have major problems in social interactions. The research focused on examining the adaptive skills and mental health in a group of children with neuromuscular diseases. The results of the study did not suggest any significant problems in communication or social skills in children with SMA¹². Kočová (2017) suggests that some children with SMA may have a tendency to directiveness in communication or even manipulative behaviour towards others due increased helplessness. Although this is a way of compensating for and coping with reality, it makes it difficult for them to establish friendly relationships and to become integrated in a group of peers⁵.

SMA is often (as a result of body deformation) associated with an aesthetic handicap, which represents an additional psychological burden for children and adolescents of school age^{5,12,13}. The physical appearance affects the overall self-assessment, especially in adolescence. In the period of puberty, all children compare themselves with their peers and in this way define their individuality. For children with SMA, the process of self-acceptance is often very dramatic⁵. According to Kočová (2017), these children face the challenge of accepting themselves with a deformed and non-functional body and often have to cope with non-acceptance by others as their visible differences may decrease their social status⁵. This implies a significant fact that the approach of the environment (classmates and school staff) affects the way these children perceive themselves and their disease¹⁹.

As indicated above, children with SMA are at a greater risk of stigmatization. Extreme cases may include rejection of a child with SMA by peers or, on the other hand, excessive protection¹³. It may also be difficult for teachers to choose their approach to a child with SMA. If teachers feel sympathy, this often leads to decreased requirements on the child⁵. Vágnerová (2014) does not consider any of the above-mentioned alternatives to be acceptable as all of them are a confirmation of a low social status¹³. Kočová (2017) adds that a professional teacher should provide identical conditions for children with SMA and should make them follow the same rules as other children⁵.

Last but not least, it is important for children with SMA, if their health allows, to take part in all school and class activities, even if the teacher has to choose a less attractive alternative that suits the child with SMA. Bartošová et al. (2012) suggests a possible risk of undesirable reactions of other children. They may not understand why the class programme must always be adapted to the child with SMA. It is important for the teacher to be consistent in this respect, support class cohesion and serve as a model. Children with SMA should also be provided with the opportunity to engage in uncontrolled interactions with their classmates in their free time and during breaks⁷.

In adolescence, children with SMA should be given space to share their experiences with their peers and to vent their emotions, fears and questions associated with the social climate in the class. The teacher and other teaching staff who come into contact with the class should work with the group of classmates from the beginning. If there is a problem that school staff are unable to resolve, a professional must be contacted⁷.

3.3 Multidisciplinary cooperation

Successful education of a child with SMA requires close cooperation of experts who are involved in the comprehensive care of the child^{10,20}. These experts primarily include teaching staff and professionals from healthcare, medical, non-medical as well as other sectors. These professionals include paediatrician/primary care provider in the medical home to coordinate specialist care, paediatric subspecialist that might include a neurologist,

a cardiologist and an orthopaedic surgeon, physical and occupational therapists¹⁰. The team of professionals may also include a psychologist, psychotherapist, social worker or palliative care workers. In some Western countries (for example UK and USA), the key role is played by a school nurse who supports school staff in the education of a child with a disease^{21,22}.

4. CONCLUSION

The school environment and education have a significant influence on the well-being of a child with spinal muscular atrophy. These aspects have the potential to affect the child's quality of life. The following five key areas should be respected in the education of these children. The child should experience social integration, successful mastering of activities, restoration of the physical condition and success in comparison with peers and should for at least a while forget about the difficulties caused by the disease.

The education of a child with SMA is always based on the level of the child's preserved abilities. Regarding the fact that the cognitive functions and intellectual abilities of these children are intact and their difficulties are rather in the motor area, it is important to provide technical compensation for the loss of movement and use appropriate interventions to ensure the social aspects of inclusion. In the educational process, it is desirable to take into account the specifics of the disease such as higher fatigability, lapses of attention, slower pace, frequent positioning and the need for rest. In some children with a more severe course of the illness, it is necessary to provide assistance that includes healthcare aspects. A child with SMA faces many psychosocial challenges. Other children and school staff can significantly influence how the child with SMA addresses these challenges. Therefore, the task of all actors in school is to help provide a safe environment that respects and supports the uniqueness of every pupil including those with SMA and a positive climate for the child's adaptation and a successful educational process.

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No potential conflict of interest was reported by the authors.

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End-of-Life and Palliative Approach, Educational and Specific Needs in Persons with Duchenne Muscular Dystrophy

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Abstract

In the last two decades, the overall improvement of treatment has prolonged the life of patients with Duchenne muscular dystrophy (DMD). This has led to new challenges, opportunities and needs on both sides – patients and carers (parents, families, close persons) on the one hand and professionals who provide care and support on the other. These professionals surely include teaching staff, specifically teachers. However, there is a lack of relevant research studies on educational, specific and palliative needs in the context of the end of life of persons with DMD. The paper aimed to describe the current state of knowledge concerning the end of life, palliative approach and care in the context of the needs of dying children and clients through an initial literary review (a part of an extensive research study of the authors). The results suggest a variety of topics. The most significant include the following: (a) Discussion on dying and death and its appropriate timing; (b) Psychosocial support for children and adolescent patients, including their integration into the natural peer and school community; (c) Comprehensive support for family carers and close persons; focus on life and quality of life and on anticipated (or impending) death; (d) Education on the meaning of the term “palliative care” and the possibilities/offer of palliative and hospice care; (e) Initiation of a supportive interview and preparation of a plan of care, needs and expectations. It turns out that discussing the end of life is just as important as discussing life itself – it is recommended to focus on the quality of life and, at the right time, think about the end of life in a way that (child) patients perceive as beneficial.

Keywords: end of life, palliative approach, needs, education, Duchenne muscular dystrophy

1. INTRODUCTION

Duchenne muscular dystrophy (DMD) is a hereditary neuromuscular disease that affects men. DMD is an example of a progressive, life-limiting disease of children and adolescents accompanied by complicated health problems. DMD has a clear progression, and the international standardised care guidelines for DMD suggest that palliative care is essential for the affected children [1].

In the USA, DMD is diagnosed at the age of around five years (at around 12–13 years of age, boys suffering from the disease usually lose their ability to walk independently; at around 15 years of age, various health complications appear – spinal curvature, respiratory problems and the risk of heart failure). The previously reported mean age of death of these male patients was around 19 years; however, life expectancy has increased, especially due to modern and innovative treatment and the possibilities of palliative and hospice care. According to the available information, the estimated life expectancy of up to 27 years of age [2] or the third or fourth decade of life [3; 4] applies to male patients using domestic night ventilation to support their breathing. However, life expectancy and health-related quality of life of male patients differ between countries, especially regarding the availability of treatment and the level

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of healthcare and other types of care. Nevertheless, it is reported lower in terms of health, functional ability, support and economic situation [5] than the intact (healthy) population.

Research studies point to frequent psychosocial problems of young men with DMD. These problems are associated with *life planning and preparation for the end of life*. They may include, for example, *the inability to talk about sensitive topics* (impending death, sexuality and intimacy, physical and psychological attributes of the disease, etc.). This may be a protective element for male patients (delaying the risk of disturbance of family members). However, *the fear of dying and death* may occur in the case of a sudden deterioration in health, death of another male patient with DMD or serious medical intervention [6; 7]. In the context of unexpected progression, complications or premature death, these *interviews should be natural, planned and ideally conducted from the beginning of the disease*. On the other hand, although patients and their families are aware of the progression of the disease and understand its natural course, patients *rarely wish to talk about the later stages of the disease*. This may also be further complicated if death occurs earlier than expected [8]. This can also be affected by the *unawareness of the possibility of using (home) palliative care*, hospice care or a different care approach which family carers may perceive as a lack of support provided in the end-of-life stage [9]. It should also be noted that *it may be difficult for healthcare professionals, experts and teachers to discuss the wishes and needs in the context of dying, end of life and death*. Although palliative and hospice care have indisputable benefits for dying patients and their families, it sometimes happens that when they are offered this type of support, they have *concerns about the “last option”* and delay effective communication about dying. *For this reason, family members require appropriate, adequate and comprehensible education* to understand the care for dying men with DMD at the end of their life and to be able to make *informed decisions*.

Although studies show that men with DMD tend not to think too much about life with DMD (to remain positive), they would appreciate the opportunity to talk about DMD and the end of their life with people they trust [6; 7].

2. SEARCH AND ANALYSIS OF RELEVANT STUDIES

The EBSCO Discovery multi-search engine was used to search for available records. In the first search, a combination of the following words was used: “duchenne muscular dystrophy or dmd or duchenne syndrome or duchenne’s” (TI) AND “palliative or end of life or terminal dying” (AB) AND “need or education or school or learning or teaching or classroom or education system” (AB). The additional criteria included the following: (a) Availability of full text, (b) Published from 2000 to the present, (c) Written in English, (d) Focus other than purely healthcare or medical care, diagnosis and related areas. In the first search, 66 records were identified, which were then subjected to an analysis of titles and abstracts (thematic relevance). As a result, ten relevant resources were included for further analysis.

The second search followed the first search. The following combination of keywords was used: “duchenne muscular dystrophy or dmd or duchenne syndrome or duchenne’s” (TI) AND “need or requirement or support” (TI) AND “education or school or learning or teaching or classroom or education system” (AB). The additional criteria were identical to the first search. A total of 22 records were identified and then subjected to an analysis of titles and abstracts (thematic relevance). As a result, three additional relevant records were included in the sample of studies.

The third search used a combination of the following keywords that appeared in the titles (TI): “duchenne muscular dystrophy or dmd or duchenne syndrome or duchenne’s” (TI) AND “palliative or end of life or terminal or dying or death” (TI) AND “school or educat* or class* or pupil or student or child or children” (TI). The search returned four records. However, after eliminating all duplications and considering the previous searches, no additional resource was included in the sample of studies.

The fourth penultimate search used a combination of the following keywords that appeared in the titles (TI): “duchenne muscular dystrophy or dmd or duchenne syndrome or duchenne’s” (TI) AND “palliative or end of life or terminal or dying or death” (TI) AND “need or support or necessity or requirement or demand or importance” (TI). The search returned a single record, but this was not a full text; therefore, no additional resource was included in the sample of studies.

The last search focused on special education using relevant keywords. The fifth search used a combination of the following keywords that appeared in the titles (TI) and abstracts (AB): “duchenne muscular dystrophy or dmd or duchenne syndrome or duchenne’s” (TI) AND “palliative or end of life or terminal or dying or death” (AB) AND “special education or special needs or disabil* or learning disabil* or exceptional* or inclusive” (TI). The search returned nine records. However, after considering thematic relevance, eliminating all duplications and considering the previous searches, one additional resource was included in the sample of studies.

The second and third components of the search were then exchanged (TI – AB; AB – TI). This alternative did not identify any new records. As a result, no additional resources were included in the final sample after this final search, and the search process was terminated.

3. CURRENT STATE OF KNOWLEDGE: SELECTED RESULTS AND EXPERIENCE RESULTING FROM THE STUDIES PERFORMED

The search process described above resulted in a sample of resources which were subjected to a full-text analysis. The results presented below are relevant to the topic of this paper. The key findings are in italics.

A qualitative study (Abbott et al., 2017) [7] was conducted in the UK and included 15 men with DMD (interviews, thematic analysis). The results showed that none of the men in the study *remembered discussing the end of life with a doctor from the children's department or other physicians later in adulthood*. The interviews they remembered related to their opinions about resuscitation (under what conditions resuscitation should be performed), which was generally appreciated (however, these interviews were limited and medically oriented). As far as the topic of these interviews is concerned, some male patients reported excessive *anxiety on the part of doctors or excessive focus on the medical-technical aspects of the disease*. Two of the male patients had experience with home child hospice care and a discussion about the end of life, death and dying. In the case of one male patient, *a wish document was created*. According to both of these patients, these interviews helped them *control the concerns of their families and take responsibility for planning and decision-making*. Although the content of what the patients wanted to know in adulthood differed, the common topic was the question of what death would be like (which remained unanswered) or, more precisely, *what the last stages of their life would be like*. It should be noted that three of the male patients mentioned assisted suicide and that this aspect should not be excluded from the interviews. Although all of the male patients *thought about the place of their death and funeral*, none of them wrote a testament or made other formal steps. At the same time, however, they mentioned that *they needed proper support and assistance in writing down their wishes*. Their frequent and dominant thoughts related to how other people would cope with their death (feelings of disappointment, abandonment, annoyance), *how their things would be taken care of and how their life path without physical presence would continue*. Only one of the patients spoke with his relatives about questions relating to the end of life. This initial barrier can be explained by the fact that families of dying men probably do not realise that the men themselves would like to conduct such interviews. Interviews about the end of life among friends of the men with DMD related only to individuals with the same disease.

All of the men described depression and/or anxiety in various adult life stages (most of them used a counselling or psychological service, but this service did not prove useful in discussing questions related to the end of their life). In answering the question, "What should a good interview at the end of your life be like?" the male patients agreed that *they wanted to talk about this but expected the other communication party to open this discussion*. As far as the typology of the doctors/professionals is concerned, they would prefer an experienced professional on the one hand and an empathetic and trustworthy person on the other hand. Initiating such an interview – in terms of appropriate timing – was highly individual (some preferred the presence of parents or close persons, and some did not). It should be noted that all of them were prepared and willing to talk about the end of their life. It can be concluded that if male patients are provided with positive stimuli and opportunities, *they will decide when such an interview should be initiated*. They would also appreciate *more effective emotional and psychological support*.

A study by Grossoehme et al. (2021; grounded theory, N = 30, semi-structured interviews) [3] showed that *carers often needed to prepare to address the changes in treatment goals due to disease progression*. The results of this study confirmed the agreement in the likely causes for delaying or considering changes in treatment goals based on focusing on life in the present, based on delays in diagnosis and also based on gradual, rather than episodic, disease progression. Another aspect was *a desire for autonomy* which motivated some patients to plan their treatment preferences at the end of their life. The authors described the following four central themes of the results: (1) Informal discussions in the family concerning the preferences and goals of treatment are more likely than explicit discussions on the objectives of care with care providers; (2) Adolescents with DMD generally delay the assessment of their treatment goals due to delays in diagnosis which results in distrust in the medical prognosis and advice, as well as due to the progression of the disease, which is generally gradual and adolescents and families have to adapt to it constantly; (3) The need to cope with an uncertain future, which results in a focus on the presence; (4) The desire for autonomy motivates some patients to plan their treatment, document their treatment preferences at the end of their life, and reconsider their goals. At the same time, the treatment goals described by the adolescents and their carers included the following three aspects – *the desire to be included among peers; maximising the quality of life; and maximising life expectancy*.

The aspect of time appeared in a retrospective analysis (of medical records) by Donaldson et al. (2021) [10], which focused on understanding the milestones achieved during the transition from childhood to adulthood in patients with

DMD and Becker muscular dystrophy (BMD). The study identified a total of 109 patients (15–56 years of age, median 24 years). In the context of the present paper, the study's results suggested that most of the patients still lived with their parents, and only a small proportion (17.4%) reported that they had discussed the end of life. Although establishing a friendship with peers is one of the developmental milestones in adolescence, the authors failed to obtain any detailed information about how they performed in this respect. At the same time, however, *discussions on advanced planning at the end of life need to be sufficiently documented. Improving this documentation could allow a better understanding of the transition of patients to adulthood and systematic interventions to improve the quality of life of these patients.*

A study by Sadisivan et al. (2021; a cross-sectional qualitative exploratory study, six families, in-depth interviews, thematic analysis) [1] highlighted the following major topics “palliative care, living with DMD, awareness of palliative care services and challenges”. *Awareness of palliative care services was identified as the dominant topic that affected the parents' experiences of children with DMD.* The study's results also emphasised the specific period of the transition in the life of patients with DMD and the requirement *to integrate the offer of palliative care services from the early stages of the disease.* Therefore, available services need to be discussed in time. Ensuring the quality of life of a child with DMD through these services may help parents to seek assistance for their child.

The participants were encouraged to narrate their thoughts and views about palliative care. They reported that *the term “palliative care” was associated with ambiguity* – most of them associated it with “death” and old dying patients. This association causes an internal stigma for the parents in thinking about palliative care services, which may affect the care for the child with DMD. The parents' effort to avoid thinking about the “death” or “loss” of their child may threaten or delay the ideal care for their child. The fact that parents associate the term palliative care with “death” and “ultimate loss” is *the likely reason why most are never willing to accept palliative care for their child.*

A study by Janisch et al. (2020) [11] highlighted the need – from the perspective of parents of children with DMD – to implement palliative care approaches and principles from the moment of diagnosis (throughout the whole life). The proposed *cooperative integrated model “builds on” close cooperation* between patients, families and care providers as well as on the treatment of complex symptoms, crisis support, occasional relief of the burden on carers, coordination of care, planning of care and, last but not least, care at the end of life. At the same time, the authors of the study pointed out that specialised palliative care should be used as a complementary approach rather than as a prognosis or stage of the disease.

Also, thanks to the recent extension of the life expectancy of individuals with DMD, many topics that adolescents consider essential have not been adequately described in the literature – this is one of the conclusions of a literature review by Andrews & Wahl (2018) [12]. Based on the literature analysis, the authors also emphasised *a lack of research on the role of palliative care in improving the results during adolescence and after this stage of life.* This may, among other things, help reach adulthood in the form of the most typical, ordinary and social life.

Premature death is likely in the case of DMD. However, some families and close persons *tend to focus on the period when the child patient is relatively healthy and addresses the child's medical issues rather than questions relating to the end of life.* These questions are also associated with *ethical problems in decision-making concerning end-of-life care in the event of a disagreement between the patient and the family* (Penner, Cantor, Siegel, 2010; a case study) [13]. These issues may include urgent intubation, mechanical ventilation, possible tracheostomy for long-term ventilation, etc. This may include, for example, 24-hour care, increased dependence on other persons, and decreased quality of life.

A study by Arias et al. (2010; quantitative research, structured questionnaire) [14] suggested the benefits of palliative care provided to persons with DMD. Of the 34 families involved, the majority (85%) were unaware of the term “palliative care”, and most of the care was nursing. Other services included *pastoral, respite, pain treatment and hospice care* (only 6%).

Only one study focused on *the needs of students with DMD in assistive technology* (Heller et al., 2008; three descriptive case studies) [15]. The authors *emphasised the importance of knowledge about the needs of children or students concerning the progression of the disease, new requirements and the development of assistive technology – neglecting or inappropriate setting of assistive technology may harm the child's academic performance.*

Last but not least, a study by Peay et al. (2018; N = 205 mothers, online questionnaire) [16] emphasised the key issues in the area of psychosocial needs and factors facilitating the care for children with DMD/BMD from the perspective of mothers. According to the study, more than 50% of mothers had *unsatisfied needs in connection with their uncertainty about the future and coping with concerns.* On the other hand, high-quality partnerships, family relationships and the child's attitude to life proved to be positive facilitators. The authors emphasised *targeted work with the needs, not only in the context of uncertainty, fear or understanding of the role of the mother of a child with DMD/BMD.*

4. CONCLUSIONS

Decisions about the end of life, needs and wishes should be made within an understanding and open interview, not within an interview focused solely on (non)resuscitation (which some experts – especially health professionals – associate with the end life of these patients). A typical feature of the life of men with DMD is that there are periods when they want and do not want to talk about the end of their life (participate/not participate in research studies). The end-of-life issue should be opened proactively with tact and respect. At the same time, it is necessary to realise that the desire to know more about the course of dying and the form of death (including medication, pain control, breathing support, etc.) is natural and should not be suppressed or delayed. At the same time, educational interventions should also focus on the issues of the last matters, funeral, testament, place of death, and discussing important issues with parents (and without parents). All of this happens with a natural concern about how the closest persons will cope with the consequences of the patient's death. Family members and professionals working in the health and education sectors should be trained using special seminars, workshops, training or group and support meetings. It turns out that discussing the end of life is just as important as discussing life itself – it is recommended to focus on the quality of life and, at the right time, think about the end of life in a way that patients perceive as beneficial.

It remains unclear at what stage of the disease the palliative care team should be addressed. This is another issue that deserves due attention and education. Various stakeholders should be involved to provide an optimal, comprehensive, and supportive care system for children with life-limiting diseases such as DMD. A suitable approach is the application of support measures (especially the individual education plan) to provide the support needed for the successful completion of the study, particularly secondary school. Families should be encouraged to discuss critical issues and to respect the wishes and expectations of the child (patient); for this reason, the comprehensive care system needs to be continuously planned, revised and individualised. Regarding the low knowledge of the benefits of palliative care, targeted education of family members and patients themselves is more than desirable. These children and students also have unique needs in the field of assistive technology – any refusal or neglect of assistive technology can harm academic achievement.

5. RECOMMENDATIONS FOR PRACTICE

Based on the results of the studies analysed, assessment of the topics and study of the conclusions, the following recommendations for educational practice were formulated:

- Initiate and conduct effective, tactful and respectful discussions on the course and quality of life as well as the wishes and needs at the end of life.
- Support child and adolescent patients and their peer community in creating a document focused on end-of-life planning and decision-making.
- Ensure appropriate and professional education of the family and close persons about their fear of the patient's death and further life without the patient with DMD (including fear, concerns, uncertainty, and new life/social roles).
- Offer targeted educational, psychosocial and other support in line with the current complex needs of dying persons with DMD – determine, implement and evaluate an integrated cooperation model.
- Plan care and interventions not only with respect to patient preferences and DMD progression but also to possible changes that may occur.
- Support children and adolescents with DMD as much as possible in their integration into normal peer life, including, for example, well-defined interventions for applying assistive technology.
- Use adequate methods and approaches to educate children and adolescents with DMD about the possibilities of palliative care and its benefits to them and their families.
- Discuss with children and adolescents with DMD issues associated with the period of life, period of death, and impending and expected death.

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Disclosure statement

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Changes in Circular Business Models in the Textile Recycling Sector: What Does it Depend on?

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Abstract

Purpose -The aim of the study was to gain insight into the factors with the greatest impact responsible for undertaking or stopping changes in business models in a textile recycling sector on the example of factors influencing changes in circular business models (CBMs) in an enterprise which has been operating in this sector for 30 years, not only in Poland, but also all over the world.

Design/methodology/approach - This study uses a case study design. The project was founded by The Jan Kochanowski University in Kielce (Project no. SUPS.RN.22.009).

Findings - The aim of the study was to gain insight into the factors with the greatest impact responsible for undertaking or stopping changes in business models in a textile recycling sector on the example of factors influencing changes in circular business models (CBMs) in an enterprise which has been operating in this sector for 30 years, not only in Poland, but also all over the world. We discovered factors for changes in circular models of second-hand clothing reuse and textile recycling into innovative textile composites used in industry. The set of main enhancing factors for the development of CBMs in VTR includes relevant regulations at the European level, advances in digital technology and process automation, process and product innovations (i.e. innovative textile composites made of recycled textiles, developed alternative methods of using textile waste), as well as consumers' social and ecological awareness. The set of main factors inhibiting the enterprise from changing CBMs include: supply chain complexity and supply chain collaboration in connection with a large scale of business in crisis situations, a large-scale business in crisis situations, a large scope and range of geographic diversification of outlets in the perspective of the consequences of the information gap, and low willingness to take high risk in conditions of high uncertainty.

Research limitations/Future - Future studies should expand to include more enterprises to further analyse this phenomenon.

Keywords: circular business model (CBM), circular economy (CE), recycling, reuse, textile recycling sector

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Systematic Training of the Early Literacy Skills in Czech Children

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Abstract

We investigated the current situation in the field of intervention/training tools, their theoretic specifics and key pre-literacy skills important for the development of children in the preschool period. An important part is the presentation of the pre-reading training program "An Sentence-woman and a Word-man in a forest full of sounds and letters" compiled on the basis of the research training study. We evaluate the benefits of the short-term, relatively intensively implemented training programme aimed at enhancing the development of pre-reading skills (specifically phoneme awareness and letter knowledge) in the last year of kindergarten. The evaluation of the benefits is carried out in comparison with the situation without the implementation of the work methodology and with the use of available work content of graphomotor skills with commented instruction. Sixty-nine children from four kindergartens were randomly assigned to three groups: pre-reading intervention group (phoneme awareness and letter knowledge intervention), graphomotor skills intervention group and no-training group. Intervention programs were implemented as a 10-week training program in the frequency of 3 training lessons per week. The results provide the benefits of the evaluated training program in terms of mobilizing pre-literacy pre-reading skills before starting school.

Keywords: phoneme awareness, letter knowledge, pre-literacy intervention, preschool age children, pre-reading training program, development of pre-literacy skills

1. INTRODUCTION

The successful process of acquiring early literacy is the starting point for later education, health and overall psychophysical well-being. The foundations of many important life skills are considered in the period before the start of schooling. One of the most important skill is the ability to read and write. We consider the development of reading and writing to be a process which current professional literature describes as variable. Many children, for various reasons, are unable to develop good prerequisites for acquiring these skills during preschool age. This is also important area of current research to name the possibilities of systematic support for the development of prerequisites for the development of literacy already in preschool age - before the start of formal schooling.

Adequate development and stimulation of key abilities of reading skills already in kindergarten (especially during preschool attendance) has its justification. Systematic educational programs for the pre-reading period have its indisputable importance in preventive area. Explicit targeted education and support of the key literacy skills before school tend not to teach children to read and write but to develop the skills that are essential for early reading and writing.

The implementation or the tradition itself in the research sphere of training and support preschool activities is significantly poor in the Czech environment compared to the situation on an international level - where the

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implementation and examination of the effects of training or intervention programs (i.e. research has already been carried out with typically developing children) for specific target groups are evaluated (from children with a slight delay in speech development to children with difficulties). Facts and arguments are discussed for and against the introduction of some pre-school teaching procedures. The question of theories and materials in relation to pre-literacy early reading activities has an important place at the moment, and this work presents a newly created systematic training program. This program is applicable in the short-term period and explicitly activate pre-reading key skills.

2. LITERACY AND PRESCHOOL CHILD

Previously it was sufficient to master the skills of reading and writing as a part of school education, the demands now have significantly changed and intensified.

Contemporary developmental psychology views literacy as a cognitive-linguistic and -social phenomenon with cognitive and psycholinguistic oriented studies of literacy (Seidlová Málková, 2021). Literacy is viewed as a developmental process. The development of literacy thus begins much earlier than with formal school education (Seidlová Málková, 2021).

The term literacy we mean the skills of reading and writing, which develop within a continuum - from the period of pre-literacy through the acquisition of basic technique, to an advanced level of use with understanding and a dominance of metacognitive processes.

Its justification in this period of early literacy is in relation to reading skills and knowledge of printed text (Helus, 2012). Early stimulation of pre-literacy skills has a beneficial effect not only on the immediate period of starting school, but also in the later period (Snow, Matthews, 2016). Its effects are not only related to the skills themselves in the reading context, but also to the areas of collective cooperation and functioning in the educational situation.

Formation of reading predispositions in the preschool period progresses from phonological awareness (Snowling, Hulme, 2005), the ability to recognize the sound structure of speech, distinguishing sounds, rhyme at the end of words and sounds at the beginning of a word (onset-rime). Furthermore, through interaction with an adult, the child becomes aware of the relationship between the sound and the letter.

Articulation games, word games, rhyming games, etc., are important in this period, whereby the word is gradually connected to a letter or written grapheme(s), which is followed by an informal familiarization of the child with common activities (e.g. labeling objects). The frequency of exposure of the child to such situations also plays a role, as well as the socio-economic status of the family. All these aspects create diverse starting positions at the beginning of compulsory schooling.

For the area of preliteracy and early literacy, especially reading predispositions (which are the subject of interest of this work), is essential supportive and structured education in the preschool and early school period of key pre-reading skills based on findings from research and in accordance with the nature of kindergarten education. As part of this work, we will continue to focus on the topic of reading and related skills in a pre-literacy perspective.

2.1. A Psycholinguistic Approach to Literacy

Reading and writing are skills with a psycholinguistic basis derived from several key skills, especially phoneme awareness and letter knowledge. The psycholinguistic approach is based on the findings that preschool children try to write words based on their phoneme arrangement. Reading can be characterized as the ability to recognize individual words, the speed of reading these words and understanding the written text. Consistency or transparency of orthographic language systems (i.e. the number of phonemes in relation to the grapheme of the given language) plays an important role - the process of acquiring literacy is influenced by the differences in the orthographic systems of different languages.

Alphabetic languages range in terms of orthographic depth (consistency) from languages with highly consistent (transparent, shallow) orthography (ie, e.g., Serbo-Croatian, Finnish, Turkish) to languages with inconsistent (non-transparent, deep) orthography (ie, e.g., English, French). The Czech language can be described as a highly consistent orthographic system.

2.2. Key components of developing literacy

First, the child must understand the alphabetic principle, i.e. that the graphemes of the written language represent the phonemes of the spoken language, which requires the knowledge of the letters of alphabet, the ability to divide words into individual phonemes (phoneme awareness) and the ability to connect them, i.e. creating grapheme-

phoneme correspondences (i.e. the phoneme /p/ corresponds to the grapheme P) (Hulme, Snowling, 2005). Understanding the principle of alphabetic orthography is the basis for so-called word decoding, i.e. recognizing words when reading (coding is the basis for writing words). Phoneme awareness plays an important role in understanding the alphabetic principle - through which the child learns the way to write down phoneme or word from spoken language to written form.

For the development of reading it is essential that the child understands that the system of sounds of the mother tongue is related to letters and is represented by them. Phoneme awareness and knowledge of letters influence each other within the development and are gradually linked. The child becomes aware of the so-called alphabetic principle (that every sound of spoken speech can be written with a letter, grapheme) and creates an accurate set of knowledges about the correspondences of phonemes and graphemes of their mother tongue.

In preschool and early school age, the variability of the development of initial reading (and writing) is fundamentally influenced by three skills or abilities: phoneme awareness, letter knowledge and rapid automatized naming (referred to by the abbreviation RAN in Czech literature).

All three skills are equally important as independent predictors of early literacy skills. Phoneme awareness is the skill of conscious and prompt manipulation of words at the level of phonemes (Caravolas, Volín, 2005). We understand the knowledge of letters not only as knowledge of the names of the letters of the alphabet (graphemes), but also of the corresponding sound that is associated with the letter (Seidlová Málková, 2016). RAN or rapid naming is the ability to readily recall the names and pronunciation of certain symbols used in the language (e.g. letters, numbers but also pictures, Seidlová Málková, 2014, p. 141). We can imagine the skill of rapid naming as a "mechanism" responsible for building a system of connecting the visual form of a word and how we read it (Seidlová Málková, 2015, p. 15).

All three skills are equally strong predictors of later reading and initial writing skills, both for consistent orthographies (Czech, Slovak, Spanish) and within a less consistent language such as English. In this context, it has been confirmed (Caravolas et al., 2012) that phoneme awareness training in children is effective, especially when it is combined with phonological foundations of reading instruction. This effort tend to improve word reading skills.

Phoneme awareness and letter knowledge are especially important for us in terms of targeted action for building the alphabetic principle and for the development of early reading in the pre-reading and early literacy period. The skill of RAN represents a relatively independent area, the memory processes of reading and writing are related to the creation of connections between the visual form of a word and how we read the given word (Caravolas et al., 2012). A systematic training of key skill areas improves not only phoneme awareness, but also reading skills to a certain extent and its development can be significantly influenced by targeted teaching activities.

2.3. Programs supporting the development of preliteracy skills

There has been an increase in interest of training / intervention programs in recent years supporting early literacy development in a number of European countries. Creators of these programs as well as professionals in school practice are aware of the importance of such training or intervention programs especially for children with risk factors in terms of literacy development (especially children with weak development of phoneme awareness).

Currently, in a number of European countries (in Europe, especially in Great Britain and Netherlands) there is a satisfactory amount of research-validated training and intervention programs available. These programs can be used by teachers and professionals in school practice, as well as parents of children of preschool and early school age to use. The two most common forms of programs for the development of early reading skills are phoneme awareness and letter knowledge (or more often- a combination of both forms). For an example how such programs can look like there are mentioned three brief examples of them.

The Sound Foundations program (Byrne & Fielding-Barnsley, 1991), widely used in English-speaking countries, focuses on building the so-called alphabetic principle, i.e. the correspondence of sound and letter, and the gradual development of elementary reading techniques. It is a system of interconnected training of phoneme awareness and knowledge of letters and basic reading skills. The entire program is implemented today as a comprehensive system of supporting the development of pre-literacy and early literacy skills of children during the entire preschool period, aimed at the support of parents, teachers or educators in preschool facilities (<https://www.soundfoundations.co.uk/>). The program is richly thematically filled, it contains a number of teaching materials and aids such as large colour posters, workbooks, listening exercises, sets of cards with pictures of words compiled with the aim of demonstrating a certain principle of the phoneme structure of words (e.g. words starting or ending with the same sound).

Similar to the Sound Foundations program, the **Soundlinkage program** (Hatcher, Duff & Hulme, 2014) focuses on phoneme awareness training and letter knowledge, with the difference that phoneme awareness training precedes letter familiarization and letter knowledge is consistently built in conjunction with knowledge of the sound structure

of words. The Soundlinkage training program is organized into a total of ten lessons with approximately eighty different tasks and activities. In the course of working with the program, children gradually master more and more demanding operations with words at the level of different linguistic units: the skill of recognizing words in sentences, recognizing syllables in words, identifying rhymes, elision and transposition of sounds... until the tasks in which they practice combining sounds and letters, and gradually even elementary reading (decoding). Individual lessons are about thirty minutes long. This program is very popular in Great Britain, it has been research-evaluated several times and experimentally implemented for different target groups. However, it is most often used in regular school classrooms as a tool for early and systematic preparation for typically developing children to learn reading and writing.

The multimedia game program **Graphogame** was originally compiled for research purposes by a research team from the University of Jyväskylä, Finland. The content of this game followed the results of longitudinal research on the prerequisites for the development of early reading in Finnish (Lyytinen et al., 2006) and was intended to be used primarily as an intervention program for children with weakened phoneme awareness in preschool age. Graphogame is designed in such a way that specifically and explicitly helps to create and practice the correspondence of letters and sounds, this game has also started to be used in regular preschool classes. The authors of this computer-assisted game (Richardson & Lyytinen, 2014) and today mainly applications for mobile phones and tablets, were looking for a way to enable children to fixate and practice the individual graphemes of the Finnish alphabet in a fun way and especially the connection of these graphemes with the corresponding sound (phoneme). The basic skills of developing literacy orientation made Graphogame a very flexible and easily adaptable tool to other languages. So far, this game has been translated and implemented in twenty countries around the world (McTigue & Solheim & Zimmer & Uppstad, 2020). The game in its character and game environment resembles any other fun computer game as much as possible.

As we can see, programs to support preliteracy skills are widely used abroad not only for typically developing preschool children in kindergartens, but also targeted for children with developmental disorders in the area of literacy or for children with risk factors in terms of the development of literacy skills.

Training or intervention programs used in practice can have very variable formats in terms of frequency or length of implementation, orientation towards a certain target group and methods of work. There was compiled a categorization system (Warren et al., 2007) inspired by the experience of clinical speech therapists in children with significant disorders of language development for the purpose of their clear description (also for the evaluation of their effectiveness). These findings are beneficial both in the field of training programs and in the field of interventional stimulation. There were formulated the following criteria for program implementation formats in terms of intensity of care: defined form (context of activities and interactions), total duration of the intervention (the interval for which the program runs- usually from three sessions to two years in duration), frequency (the number of sessions provided within a certain time frame and the length of each session), quantity and cumulative intensity of the intervention (result in quantity, frequency, and total duration) (Warren et al., 2007). When choosing or creating a training or intervention program, one must take into account the target group/individual and consider several variables.

In the context of complex care, training or intervention programs tend to be often completed with a complex child-oriented care, not only learning strategy approaches for parents but also sessions with speech therapist, home learning apps, psychologist intervention and other professional care.

3. EMPIRICAL RESEARCH

3.1. Aims of the study

The subject of our research is the evaluation of the benefits of the proposed training program for the development of preliteracy skills of preschoolers in the conditions of the usual daily implementation of educational activities in kindergartens, and its use in practice. We aimed to assess the effectiveness of implemented training groups and no-training groups on gains in the targeted skills.

3.2. Method

This research is based on data material obtained in the years 2016 - 2017 in kindergartens in and around Prague. Between the first and second phases of data collection, the implementation of the training program took place, when two experimental groups (G1, G2) and one control (G3) group were created. To assess the effects of the 10-week training activities, data material was collected before the training implementation, immediately after the end of the training activities and approximately one year later. In this work we evaluated data from the first and second phase

of data collection- before and after implementation of training programs. The obtained data material enabled the evaluation of the effects of the implemented program and the assessment of the benefits and feasibility of this compiled pre-literacy training program focused on phoneme awareness and knowledge of letters.

The research was conducted in a quasi-experimental study format. Children were divided into groups by their teachers. The first phase of data collection, the so-called pre-test phase (T1), took place within 3 weeks (in the time period February-March 2016) before the start of the implementation of training programs in kindergartens. The implementation of a training program and an experimental graphomotor program took place between the first and second phase of data collection in the period March - May for ten weeks with a frequency of approximately 1.5 hours per week spread over three days within the working week. The posttest phase (T2) was conducted in June 2016 and took place immediately after the end of training activities in kindergarten classes.

3.3. Participants

Children in pre-school years of kindergarten were searched during the first half of the last year of kindergarten before starting school (in the age of five years). Implementation of training and research took place during the second half of the last year of kindergarten.

Table (See Table 1) showing final selected sample of children. From the total sample of children (69 children) were selected children who continuously decode (read) words. The resulting sample consisted of 53 children (“non-readers”). Table 1 shows the age of children (in months) at the beginning of the research for the final research sample and the number (N) of participants within monitored groups.

Table 1. Age distribution of final sample (in months) in groups G1, G2, G3. The table shows the number of children in the group (N), the average age in months (Mean) including the standard deviation, median and the age range (all in months) in the pretest period.

T1 pretest				
Age	N	Mean (s.d.)	Median	Range
G1- pre-reading training	22	75,32 (2,75)	76,5	69-78
G2- graphomotor training	10	69,7 (3,31)	69	66-74
G3- control group	21	71,86 (4,1)	71	64-80

3.4. Test tools

Tests mapping reading and writing skills were chosen with regard to children's preschool age and abilities, but also to distinguish peripheral respondents in the area of pre-reading and language skills. The test battery (See Table 2) was designed to assess skills involved in the development of phoneme awareness, letter knowledge, early reading and cognitive skills. Battery administration, with regard to the age of the children, took about 35-45 minutes for one individual session with the child. In case of reduced concentration, the children had the opportunity to take a break, play and then return to the test tasks or complete the remaining tests next meeting. The test situation has a game-like character, so that children in the preschool period were as interested as possible and motivated in completing individual tasks.

Table 2. Test battery – the table describes skills areas and selected test tools in time period T1 and T2.

Skills area	Test tools	T1 pretest	T2 posttest
<i>Phoneme awareness</i>	Phoneme nonword recognition task	●	●
	Phoneme isolation task	●	●
<i>Letter knowledge tests</i>	Letter recognition task	●	●
<i>Word writing test</i>	Letter writing and word writing	●	●
<i>Early reading</i>	Picture-word matching (PWM)	●	●
	One minute reading (RCT)	●	●

Cognitive skills	Raven’s progressive matrices	•	•
	Rapid automatized naming	•	•

3.5. Training programs

During the implementation of the training activities, three groups were formed:

- **Group G1: pre-reading training program** - a group working with a program to support reading skills (a key program in terms of research goals- phoneme awareness and letter knowledge comb.), program was based on previous research (The relationship between sound isolation and letter knowledge in the beginnings of the development of reading skills, GAČR 406/08/0338),
- **Group G2: group with graphomotor training** - group working with commonly available preschool educational activity - preschool worksheets,
- **Group G3: control group** - this group had no activities beyond the normal teaching schedule in kindergarten.

4. RESULTS

4.1. Analyses and descriptive statistics

In order to compare the monitored performance values (performance increases within time period T1 and T2) within the groups (See Table 3) in tests of different scales and variables, the standard scores of all tests were converted to Z-scores (Brom & Řehák, 2015) (i.e. the difference between the individual and population average divided by the standard deviation). It can be read from the Z-score value if the observed value is above the average, the Z-score has a positive sign, in the case of a negative sign, the observed value is below the group average.

Table 3. Table showing the Z-scores for the period T1,2 for group G1,2,3. The table shows the type of task, Mean incl. Standard deviation (s.d.), Median and Z-score Range for all Groups (G 1, G2, G3).

Z-scores T1-T2 Test tools	G1		G2		G3	
	Mean (s.d.)	Median	Mean (s.d.)	Median	Mean (s.d.)	Median
Phoneme nonword recognition	0,3 (0,67)	0,07	-0,87 (0,9)	-0,52	0,05 (0,71)	-0,05
Phoneme isolation task	0,09 (0,53)	-0,1	0 (0,35)	-0,01	-0,26 (0,48)	-0,1
Letter recognition task	0,03 (0,26)	0,01	-0,001 (0,31)	-0,09	-0,08 (0,26)	-0,14
Letter writing	-0,08 (0,55)	0	-0,16 (0,27)	-0,14	0,09 (0,43)	-0,03
Picture-word matching (PWM)	0,2 (0,92)	0,19	-0,06 (0,66)	-0,11	-0,29 (1,02)	-0,2
One minute reading (RCT)	-0,04 (0,99)	-0,27	0,07 (1,01)	0,08	0,03 (1,03)	0,36
Raven’s progressive matrices	-0,01 (0,72)	-0,16	-0,11 (0,53)	-0,22	0,08 (0,78)	0,11
Rapid automatized naming	0,07 (0,64)	-0,03	-0,23 (0,88)	0,09	0,12 (0,93)	0,36

Statistically significant values for comparison of significant differences in performances within the groups are evaluated within the Kruskal-Wallis test at a significance level of 0.05. See Table 4, where a statistically significant increase in the values of the monitored groups is evident in the Phoneme nonword recognition test. Other values for the tests of given skills do not reach statistical significance.

Table 4. The table of values of the Kruskal-Wallis test for the test tools for the period T1, T2 gives us the significance levels of individual tasks at the significance level of 0.05.

Test tools	K-W test
Phoneme nonword recognition	0
Phoneme isolation task	0,1
Letter recognition task	0,3
Letter writing	0,32
Picture-word matching (PWM)	0,32
One minute reading (RCT)	0,84
Raven’s progressive matrices	0,57
Rapid automatized naming	0,73

A post hoc non-parametric test of paired group comparisons showed a statistically significant difference between the group with pre-reading training (G1) and the group with graphomotor (G2) focused activities, and also between the control group (G3) and the group with graphomotor (G2) activities. There was no statistically significant difference between the group with pre-reading training (G1) and the control group (G3) (See Table 5).

Table 5. Post hoc Kruskal - Wallis non-parametric pairwise comparison test of Voice Recognition test groups shows the resulting values between individual groups at a significance level of 0.05.

Groups	Level of importance
Group G1-G2	0,025
Group G3-G2	0,01
Group G1-G3	0,923

In the area of phoneme awareness: the highest increase in values can be seen for the group with pre-reading training in all monitored test tasks. In the Phoneme isolation task, the control group has the lowest performance increase (the G2 group performs better), but scores better in the Phoneme nonword recognition task (compared to the G2 group). For the Phoneme nonword recognition task there is significant higher value, in post hoc test we can see that there was statistically significant difference between the group with pre-reading training and graphomotor group, and graphomotor group and control group.

Within the domain of letter knowledge, the highest performance increase in the Capital Letter Recognition task can be seen in the group with pre-reading training. Within the task Writing capital letters, we observe the highest increase in the control group, even in the case of writing letters included in the pre-reading training. In total, children from the pre-reading and control groups write around 16 letters (16.38 letters G1 and 16.95 letters group G3), for the control group it is around 14 letters. For comparison, our training wasn’t aimed at writing letters and there are just 8 letters contained in our training.

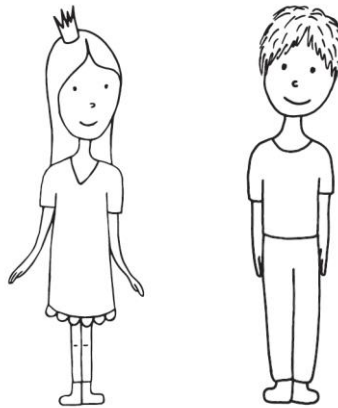
In the area of initial reading, the highest increase in values can be seen on the Picture-Word Matching test for the group with pre-reading training. The values of the other two groups are below the average. In the Reading task, the group with graphomotor training and the control group perform best. In the case of the pre-reading training group, the performance increase is below average.

In the cognitive area, the highest performance increase is in the case of the control group and group with pre-reading training. Children's performances in these tasks is not significantly different from the average. This tasks, which includes the RAN and RAVEN tests, serves as an indicative measure of children's performance, and we do not expect the training program to have any overlap with these skills. The RAVEN task then served primarily as part of the assessment of nonverbal intellect skills.

4.2. Final version of pre-reading training program

The training program "An sentence-*woman* and a word-*man* in a forest full of sounds and letters" is compiled in an context with a story that draws children into the action, in the fairy tale forest ("The Realm of Sounds and Letters"). The central characters, Sentence-*woman*, who likes sentences, and Word-*man*, who likes words, help children grasp spoken language as a certain structure, a system. The main characters accompany the children on their way to see their grandmother and grandfather, who have a gift for them to finish preschool education - a sheet with all the letters of the alphabet with the main characters of the program. Compared to the original version, when the protagonists headed to their native homeland on a path full of fantasy and fairy-tale elements or characters. It is a classic story with fantasy elements. There are also a fairy tale characters - a robot from outer space, forest nymphs and grasshoppers, lettermen, the frog Rudolph from a forest pond and others, who introduce to children the important milestones of the program and mobilize them for independent activity with newly acquired knowledge.

Picture 1. The main characters of the training program.



The training program is compiled as a comprehensive concept, a series of connected tasks for intensive work during approximately two months (10 weeks) of the preschool year of kindergarten, consists of 28 lessons. Each lesson has additional exercises – exercises beyond the scope of the work, which can be assigned individually to the children or completed as group work in the remaining time.

Thematically, the program can be divided into four interrelated sections – the introductory section (with an emphasis on building the game context of the story), with the first lessons on practicing orientation in the word and syllabic structure of words and sentences, the phonological section (focused on identifying the first sound in a word), the letter knowledges (introduced sounds) and a section practicing and repeating these skills with an emphasis on strengthening the alphabetic principle (phoneme-grapheme connection). Each section consists of a series of tasks to be worked on in one teaching lesson lasting 25-35 minutes. Each lesson consists of structured descriptions of the procedures and methods of implementing the training plan and is accompanied by appropriate visual material (worksheets and pictures). The individual lessons are built as a follow-up of each other, they are linked by a basic story, which the children experience together with the central characters of the program from the beginning of the program until its end.

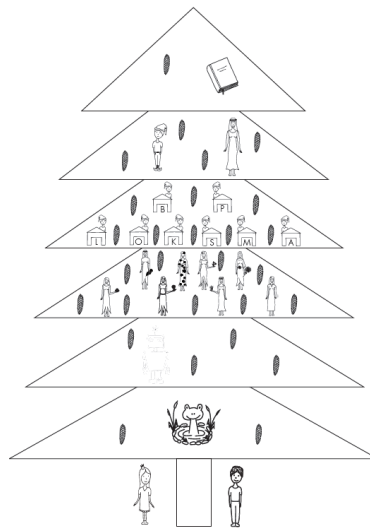
A typical arrangement of lessons in the program is as follows:

- from introductory information aimed at orientation in the lesson to tasks used to repeat previous activities and skills;
- getting to know new knowledge through common and individual work (worksheets);
- final review and activities to reinforce newly acquired skills;
- additional exercises i.e. beyond the scope of the defined work;
- the final part designed to repeat and conclude the discussed topic.

The aim of the program is primarily to activate basic pre-reading skills to support typically developing children, therefore teaching the names of the letters of the alphabet or elementary reading is not part of the program. The program is designed for the direct work of educators with children in classes as a set of instructions for training activities, pictures and worksheets for work in pencil-paper format, but also in an electronic version for work on a PC/tablet (as work on a separate device for each participant) based on the teacher's oral instructions. Our experience shows that smaller groups of children (6-8) are better suited for working with this program, mainly due to easier control of teacher. In the case of the involvement of an assistant of teacher and good preparation of the head teacher, the program could certainly be used as part of the educational activities of the entire kindergarten class.

Work with the program is complemented by the use of creative, movement activities, visualization and art, audio and other additional tools that contribute to the fun and interactive nature of education. Games with letters strengthen not only the recognition of the correct shape of a letter, but also its production (writing), which is supported by additional creative activities (e.g. creating the shape of letters with a model). The activities are visualized using fantasy or fairy tale elements or characters in a coherent story, where the protagonists shed light on the meaning of the task performed.

Picture 2. Picture of a path through the forest.



A visual aid for children is a "poster" (See Picture 2) - a picture of a path through the forest with central characters and drawn individual lessons (as cones), printed in each work group. The poster serves the children as a visualization aid and an illustrative part of the fairy tale, where the children not only mark each completed lesson - the completed section - by coloring the tree cones along the path through the forest (the number of lessons represents the number of these cones, arranged in sequence), but also as a didactic aid, where children record newly acquired information and knowledge in the relevant areas, which they use during work.

5. DISCUSSION AND CONCLUSION

In connection with the increasing and more complex demands of society on education, the need to create and implement training and intervention programs resonates. Programs to support pre-literacy skills systematically are widely used abroad not only for typically developing preschool children in ordinary kindergartens, but also for children with developmental disorders in the area of literacy or for children with risk factors in terms of the development of literacy skills. Targeted support in the pre-school period facilitates the process of acquiring education during the first years of schooling, activates initial literacy prerequisites and balances inequalities in key pre-reading skills – before the school entrance, especially targeted activities on the field of early literacy development (letter knowledge, phoneme awareness training- ideally combined).

Aim of our research was to assess implemented pre-reading program and observe its effects. The targeted pre-literacy training program was implemented in schools without significant difficulties, including the intended research phases. Based on the research results, in the second half of preschool classes approximately 20% of children were eliminated from target sample because they were able to read word(s). Pre-reading training didn't

make sense for these children, this is why “non-readers” were chosen. Our pre-reading training program brings mild short-term positive effects (improvement i.e. immediately after the end of the training activities) in the area of trained skills- phoneme awareness and early reading. For letter recognition knowledge and letter writing, children on average recognized and wrote more than half the letters of the alphabet in the beginning of research. The children in our research have proven good initial performances in observed skills, the differences in children's performances within schools should be investigated further as well as actual preschool early literacy readiness. Due to very good performances of children at the beginning of our study, we suggest to place the pre-reading training program in the beginning of the kindergarten preschool year. In accordance with the research findings, the program was modified, made more sophisticated. Actual version of the program is introduced within this article. Its printed (paper and pen version) and also electronic app (ICT version) for PC or tablets. It is expected to be released in the middle of this year.

Structured support in the field of developing phoneme awareness and knowledge of letters is very beneficial and also at least demanding the integration into the educational activities of regular kindergarten classes. The necessity of further research oriented in this direction is indisputable and desirable.

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Promoting a More Effective Legal Protection for Individuals and Business Actors: Applying the Concept of Fair Trial to Constitutional Court Procedures

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Abstract

The safeguards stemming from the right to fair trial as stipulated among others in Article 6 Paragraph (1) of the European Convention on Human Rights and Article 47 of the Charter of Fundamental Rights of the European Union play a crucial role in defining the framework of judicial proceedings in the European states both in criminal and civil matters. The current paper raises the question, whether certain elements of fair trial are applicable – besides to ordinary court proceedings – also to constitutional court proceedings. The analysis offers a synthesis of the theoretical background and the general requirements identified by the relevant international and European fora (complemented by references to the related jurisprudence of the constitutional courts of certain EU Member States). This way, the study can contribute to a more comprehensive understanding of the role of the principles of fair trial in constitutional court proceedings. The findings can be the foundation for a future evaluation of the relevant national procedural laws and can give a new impulse to the elaboration of new solutions, which might improve the efficiency of legal protection offered by constitutional courts both for individuals and business actors.

Keywords: fair trial, constitutional court procedures, legal protection, efficiency, case-law analysis

1. INTRODUCTION

“The idea of a fair trial is central to human rights doctrine, not only as a right in itself, but because without this one right, all others are at risk; if the state is unfairly advantaged in the trial process, it cannot be prevented in the courts from abusing all other rights.”[1] This statement on the concept of fair trial offers a vivid description of the approach, attitude that should guide any analysis of legal procedures or procedural laws.

Article 6 Paragraph (1) of the European Convention on Human Rights (hereinafter: ECHR) and Article 47 of the Charter of Fundamental Rights of the European Union (hereinafter: Charter) as well as the attached case-law by the European Court of Human Rights (hereinafter: ECtHR) and the Court of Justice of the European Union (hereinafter: CJEU) respectively, play a crucial role in defining the framework of judicial proceedings in the European states [2] both in criminal and civil matters. The current paper raises the question, whether certain elements of fair trial are applicable – besides to ordinary court proceedings – also to constitutional court proceedings.

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2. CONTEXT OF THE RESEARCH QUESTION

The research question is based on the phenomenon that in the last couple of years growing attention is paid to constitutional court proceedings both at legal and political level. Firstly, these procedures are basic safeguards for the protection of rights of individuals and for the maintenance of constitutionality, especially in times of crises. In emergency situations, the proper functioning of the judiciary (understood in a broader sense, including constitutional justice [3]) is crucial as it offers the necessary safeguards against infringement of rights and ensures the review relating to the lawfulness of emergency measures. [4] As regards the specificities of the business sector, litigation related to contract breaches, employment issues, bankruptcy filings and tax payments [5] – especially as regards SMEs – and legal needs relating to the rapidly-evolving emergency regulations on business conduct trigger a growing need for an efficient adjudication of the constitutionality of the newly introduced measures.

Secondly, the growing role of efficient access to constitutional court proceedings might also be based on the fact, that they are more intensively considered as preconditions of bringing a case to the ECtHR, [6] and thus they play a more intensive role in the international system of human rights protection.

Thirdly, international political mechanisms, like the European Commission's Rule of Law Report [7] or the monitoring procedure in the framework of the Council of Europe [8] put significant emphasis on the role of constitutional courts in the system of checks and balances as indicators of the protection of democracy, rule of law and fundamental rights. Taking these tendencies into account, the question is even more justified, whether and how the safeguards derived from the right to fair trial apply to these proceedings, primarily to constitutional complaint procedures.

3. BACKGROUND AND METHODOLOGY

The relevant literature analyses the interconnection of the right to fair trial and constitutional court proceedings primarily from the aspect how international fora and national constitutional courts interpret and apply the safeguards stemming from this right, [9] or from the point of view of specific (civil, criminal or administrative) procedural laws. [10] As regards recent developments, the questions of applying or adapting the elements of fair trial to emergency situations seem to be in the center of attention. [11]

Therefore, it seems to be useful to amplify the research by examining the application of safeguards related to fair trial in constitutional court proceedings. Firstly, the theoretical background shall be clarified by defining the conceptual elements of fair trial based on international human rights standards and case-law. Afterwards, the question will be raised, whether and to what extent these individual safeguards can be applied in the specific context of constitutional court procedures.

The paper is based on a descriptive analytical approach and offers a synthesis of the theoretical background and the general requirements identified by the relevant international and European fora (complemented by references to the related jurisprudence of the constitutional courts of certain states [12]). This way the study can be a first step towards a more specialized understanding of the concept of fair trial and it may result in the definition of some common minimum procedural standards towards constitutional court proceedings. The findings can be the foundation for a future evaluation of the relevant national procedural laws and can give a new impulse to the elaboration of new solutions, which might improve the efficiency of legal protection offered by constitutional courts both for individuals and business actors.

4. THE CONCEPTUAL ELEMENTS OF FAIR TRIAL

A basic feature of the right to fair trial is that it is comprised of several elements, which can be defined on the basis of the normative provisions of the ECHR and the Charter, and which have been further elaborated in the relevant case law, but which do not form a closed list [13]: – e.g. the rights of the defence, the right of access to a tribunal [14] and the principle of equality of arms (also including a certain connection to the principle of respectful treatment), [15] the right to be advised, defended and represented, the adversarial principle, the independence and impartiality of the judiciary, [16] the right to a public procedure, right to a decision within a reasonable time or the right to a well-reasoned judgment. [17]

As the ECtHR stated, constitutional court proceedings do not in principle fall outside the scope of Article 6 Paragraph 1 of the Convention; [18] thus the requirements stemming from the right to fair trial – where applicable – shall be safeguarded in constitutional court proceedings as well.

This approach is in line with the *sui generis* understanding of the concept of “civil rights and obligations” in the ECHR [19], but – in a broader context – also with the fact that “*the right to a fair trial holds so prominent a place in a democratic society that there can be no justification for interpreting Article 6 § 1 of the Convention restrictively*”. [20]

The primordial role of the right to fair trial is also enshrined in the jurisprudence of the constitutional courts analyzed. The Hungarian Constitutional Court held that “*the requirement resulting from the principle of fair trial is the application of the procedural rules in line with the Fundamental Law, which is the duty of the courts functioning in the framework of the rule of law*”. [21] The Constitutional Court of the Republic of Croatia pointed out that the right to a fair trial guarantees the protection from the arbitrariness of the courts and other State bodies when deciding on a matter. [22] These statements confirm on the level of national jurisprudence that the right to a fair trial has to be safeguarded in the broadest possible sense. Nevertheless, due to the specificities of the constitutional court proceedings, not each and every element of this complex right are applicable to them.

5. APPLYING THE ELEMENTS OF FAIR TRIAL TO CONSTITUTIONAL COURT PROCEDURES

The principle of equality of arms, which “*together with, among others, the principle audi alteram partem, is no more than a corollary of the very concept of a fair hearing*” [23] “*implies an obligation to offer each party a reasonable opportunity to present its case in conditions that do not place it in a clearly less advantageous position by comparison with its opponent*” [24]. In a constitutional court procedure, however, neither the concept of “exchange of argument” nor that of “disadvantage vis-à-vis the opponents” is applicable, as the substance of the proceedings is generally a theoretical question, which is related to the protection of fundamental rights, to the functioning of institutions of the state or to the situation of the state in the international community. Therefore, the requirement of equality of arms does not seem to be particularly relevant in constitutional court proceedings.

Similar considerations apply as regards rights of the defence, the right to a public procedure and the adversarial principle, meaning that “*the parties have a right to a process of inspecting and commenting on all the evidence and observations submitted to the court*”. [25] Due to the fact that constitutional court decisions are primarily an abstract argumentation, the right to a well-reasoned judgment does not seem to be a direct point of reference either. The main aim of these elements of fair trial, namely the substantive participation of the party in the proceeding, is applicable in the context of constitutional court proceedings rather through the concept of an efficient access to justice.

It is a basic precondition for the efficient legal protection offered by constitutional court proceedings, primarily constitutional complaints, that the access to such procedures cannot remain illusory. [26] And the right of access to a tribunal expresses not only the right to institute proceedings before courts. [27] It also comprises the right to obtain a determination of the dispute by a court [28] as well as the requirement of the decision being able to remedy wrongs or asserting claims. [29] Through the determination and interpretation of the requirements for the admissibility of complaints, the possibility of legal aid, the procedural deadlines, the basic elements of the judgement and its legal consequences, the efficient access to constitutional court proceedings ensures that other conceptual elements of fair trial, like the requirement of a well-reasoned judgement, the right to a decision within a reasonable time or the right to be advised and represented, are observed as well. [30]

When examining implementation of the right to a fair trial, it shall be recalled that according to the well-established case law of both the ECtHR and the national constitutional courts, fair trial is a specific quality of the proceedings, which can be assessed only on the basis of all circumstances of the case. [31] If, however, the efficient the implementation of the right to fair trial can only be evaluated through an overall assessment of the specific case, can any general standards be defined? Are there any requirements, which – at the end of the day – might serve as final points of reference to define the efficiency of the legal environment of constitutional court proceedings?

Based on the reasoning above, the concept of an efficient access to constitutional court proceedings could be a primary point of reference when implementing the right to a fair trial in these proceedings. Another reference point follows from a decision of the Hungarian Constitutional Court, which concluded that “*the constitutional requirement of fair trial sets a minimum expectation regarding judicial decisions, namely that the court should examine with due scrutiny the comments made by the litigant parties about the substantial parts of the case and that the court should give account of this assessment in its decision*”. [32] The Constitutional Court of the Republic of Croatia highlighted in a similar sense that “*the allegations of the parties that are decisive for the outcome of the proceedings must be answered in a specific and express manner*”. [33]

Therefore, despite of the need for a comprehensive and generalized approach when assessing the safeguards of fair trial and despite the fact that constitutional court proceedings have certain specificities, which make further

differentiation necessary, a minimum standard for the implementation of the right to fair trial in such proceedings, primarily in constitutional complaint procedures, might be defined: it shall be possible to initiate a proceeding related to an issue of fundamental importance about the protection of human rights or other basic constitutional principles in front of the constitutional court without undue difficulties; the procedure shall ensure that the arguments of the complainants can be presented in an appropriate manner and they are answered in a specific and express manner so that the decision can – at the end of the day – result in an efficient remedy.

6. CONCLUSIONS

The current analysis did not aim to single out certain elements of national laws, and compare these with the European and constitutional standards separately, but it was intended to identify the framework for such a future analysis. On the basis of the role of constitutional court proceedings in safeguarding fundamental rights, democracy and rule of law, as well as based on the relevant case-law and legal literature it is argued that a.) the concept of fair trial is and should be applicable to constitutional court proceedings in general; b.) apart from certain elements of the concept of fair trial, which are inherently linked to the specificities of ordinary court procedures, the majority of the conceptual elements are applicable to the constitutional court procedures; c.) the basic standard for measuring the efficient implementation of the right to fair trial in constitutional court procedures, primarily in constitutional complaint procedures, is, that a proceeding related to an issue of fundamental importance about the protection of human rights or other basic constitutional principles can be initiated in front of the constitutional court without undue difficulties, the arguments of the complainants can be presented in an appropriate manner and they are answered in a specific and express manner so that the decision can – at the end of the day – result in an efficient remedy. These findings may serve as a framework for a future analysis of the national laws governing constitutional court proceedings and thus could further promote the enforcement of the safeguards of fair trial in constitutional court proceedings.

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 „As regards the right to a fair trial, to which reference is made in the question referred, it must be recalled that that right results from the constitutional traditions common to the Member States and was reaffirmed in the second paragraph of Article 47 of the Charter, which corresponds, as is clear from the explanations relating to that article, to Article 6(1) of the ECHR (see Case C-279/09 *DEB* [2010] *ECR I-13849*, paragraph 32).”
 CJEU, Case C-619/10, *Trade Agency Ltd v. Seramico Investments Ltd*, judgment of 6 September 2012 [ECLI:EU:C:2012:531] para 52.; Similarly, CJEU, Case C-682/15, *Berlioz Investment Fund SA v. Directeur de l’administration des contributions directes*, judgement of 16 May 2017, [ECLI:EU:C:2017:373], para 54.
- [3] As the Venice Commission stated, “judicial review of emergency measures is another guarantee against the risks of the abuse of power by the executive. (...) The judicial system must provide individuals with effective recourse in the event State authorities interfere with their human rights. Judicial review may be carried out by civil or administrative courts as well as criminal courts when dealing with penalised violation of emergency legislation/measures. The highest courts, especially the constitutional court (or a court with an equivalent jurisdiction), where these exist in the country, should also be involved.” European Commission for Democracy through Law (Venice Commission). (2020). *Interim Report on the measures taken in the EU member States as a result of the Covid-19 crisis and their impact on democracy, the rule of law and fundamental rights*, CDL-AD(2020)018-e, 21; Retrieved 15th September 2022 from [https://www.venice.coe.int/webforms/documents/default.aspx?pdffile=CDL-AD\(2020\)018-e](https://www.venice.coe.int/webforms/documents/default.aspx?pdffile=CDL-AD(2020)018-e)
 The significant role of constitutional court proceedings is reinforced by the example of the measures introduced to tackle the COVID-19 pandemic, which have demonstrated, that the functioning of constitutional courts was adapted much easier to the emergency situation; while in ordinary courts significant changes of procedures and functioning were needed due to the specificities of the proceedings.
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- [16] At this point it shall be mentioned, that these elements are also strongly related to the principle of principle of effective judicial protection. As the CJEU concluded „Article 6(1) ECHR, the second paragraph of Article 47 of the Charter, which corresponds to that provision of the ECHR, provides that ‘[e]veryone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal previously established by law’. As the Court of Justice has held on several occasions, that article relates to the principle of effective judicial protection (see, in particular, *Der Grüne Punkt – Duales System Deutschland v Commission*, paragraph 179 and the case-law cited).” CJEU, Case C-40/12 P, para 75. Further elaborated in: CJEU, Case C-216/18 PPU, *LM.*, judgement of 25 July 2018 [ECLI:EU:C:2018:586], paras 51-58.
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- [19] Concerning the concept of “civil rights and obligations”, the Guide to Article 6 ECHR clarifies – based on the relevant case-law of the ECtHR – that “the concept of “civil rights and obligations” cannot be interpreted solely by reference to the respondent State’s domestic law; it is an “autonomous” concept deriving from the Convention (*Grzeża v. Poland* [GC], 2022, § 287). Article 6 § 1 applies irrespective of the parties’ status, the nature of the legislation governing the “dispute” (civil, commercial, administrative law etc.), and the nature of the authority with jurisdiction in the matter (ordinary court, administrative authority etc.) (*Bochan v. Ukraine* (no. 2) [GC], 2015, § 43; *Nait-Liman v. Switzerland* [GC], 2018, § 106; *Georgiadis v. Greece*, 1997, § 34).”
ECtHR, *Guide on Article 6 of the European Convention on Human Rights Right to a fair trial (civil limb)*, p. 7.
Retrieved 15th September 2022 from https://www.echr.coe.int/documents/guide_art_6_eng.pdf
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The CJEU further extended the applicability of the concept to the procedures of EU institutions on the basis of a similar approach as it ruled that „the right to a fair trial is a fundamental principle of EU law, laid down in Article 47 of the Charter of Fundamental Rights of the European Union. In order to satisfy the requirements of that law, the European Union judicature must ensure that the principle that the parties should be heard is respected in proceedings before them and that they themselves respect that principle, which applies to any procedure which may result in a decision by an institution of the European Union perceptibly affecting a person’s interests”. CJEU, Case C-530/12 P, *Office for Harmonisation in the Internal Market (Trade Marks and Designs) (OHIM) v. National Lottery Commission*, judgment of 27 March 2014 [ECLI:EU:C:2014:186] paras 52-53.
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The Czech Constitutional Court held that the „meaning and purpose of the principle of equality of arms, equal rights and obligations in civil (and other) proceedings before a public authority is to guarantee the conditions for a fair outcome of the proceedings; this could be absent if one of the parties is disadvantaged in the proceedings (typically by being unable to present its own arguments and evidence, etc.)” {Pl. ÚS 2/10, ECCN CZ-0190, para 51.}.
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- [28] ECtHR, *Fălie v. Romania*, judgment of 19 May 2015, Application no. 23257/04, §§ 22 and 24, *Kutić v. Croatia*, judgment of 1 March 2002, Application no. 48778/99, § 25.
- [29] ECtHR, *Cyprus v. Turkey*, judgment of 10 May 2001, Application no. 25781/94, § 236.
- [30] As the independence and impartiality of the judiciary, which is undoubtedly relevant in constitutional court procedures, is rather a question of public law nature, it will not be examined in this procedural law analysis.
- [31] ECtHR, *Stran Greek Refineries and Stratis Andreadis v. Greece*, judgement of 9 December 1994, Application no. 13427/87, § 49. ECtHR, *Ankerl v. Switzerland*, judgement of 23 October 1996, Application no. 17748/91, § 38. CJEU, T-58/01., *Solvay SA v. European Commission*, judgment of 17 December 2009 [ECLI:EU:T:2009:520] para 226.; C-450/06., *Varec SA v. Belgium*, para 52. Similarly, the Hungarian Constitutional Court reaffirmed several times, “fair trial is a quality factor that may only be judged by taking into account the whole of the procedure and all of its circumstances. Therefore, despite the absence of some details, as well as the observance of all the rules of detail, a procedure may be “inequitable”, “unjust” or “unfair”.” {Decision of the Hungarian Constitutional Court 20/2017. (VII. 18.) AB Reasoning [16]; ECCN HU-0135; similarly: Decision 3102/2017 (V. 8.) AB, Reasoning [17]}.
- [32] Decision of the Hungarian Constitutional Court 20/2017. (VII. 18.) AB Reasoning [26]; ECCN HU-0135; similarly: Decision 7/2013. (III. 1.) AB, Reasoning [34]; 3051/2016. (III. 22.) AB, ECCN HU-0218.
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Novice Vietnamese Translators' Viewpoints on the Use of Computer-Assisted Translation Tools

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Abstract

The survey was conducted to explore the benefits and disadvantages of Computer-assisted translation (CAT) tools from the viewpoint of 36 novice translators at a private translation and interpretation training center in Vietnam to facilitate the creation of user-centered software that satisfies user expectations or not. The Software Usability Measurement Instrument (SUMI) adapted from Kirakowski (1986) was employed to evaluate CAT technology from the perspective of translators. Overall satisfaction was very high, with scores exceeding expectations. Similarly, although all four usability categories were above average, the evaluations for effectiveness and learnability were the lowest. CAT tool developers should also focus on product efficiency and usability to suit the demands of inexperienced translators and improve user happiness. In addition, the working circumstances must be altered so that less-experienced Vietnamese translators are motivated to participate.

Keywords: Computer-assisted translation, CAT tools, the Software Usability Measurement Instrument (SUMI), novice translators.

1. INTRODUCTION

Modern translators often use computer-assisted translation (CAT) techniques to increase output without sacrificing quality. A CAT tool is any computerized tool translators use to facilitate their work. CAT tools aim to aid human translators throughout translation (Li, 2015; Kruger, 2016; Thao, 2018; Alotaibi, 2020). The ALPS system, the first CAT software, was developed by the American firm Automated Language Processing Systems in the early 1980s. This prototype included text processing in many languages, an automated dictionary, and terminology consulting.

Due to technological advancements and price decreases, more complex systems with larger capacities and more affordable pricing have been produced throughout time. As translation technology evolves, more and more translators are choosing cloud-based tools, which provide a platform-independent environment for working on and managing translation projects. Nga and Chen (2020) advocate that in a broader sense, CAT tools can also include information technology that the translator can use to improve translation efficiency, including encoding processing, translation resource extraction, word count, task analysis, terminology extraction, reuse of translated fragments, searching, verification, term identification, progress monitoring, and format checking. With the proliferation of digital

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information and internet consumers, many experts feel the necessity for technological advancements in translation has increased (Kruger, 2016). According to Li (2015), the constant demand for translation has raised the strain on translators to provide work quickly while maintaining quality. As a result of this change in the industry, technical competence and familiarity with CAT systems are in more demand than ever. Furthermore, many translation courses now include technological components, enabling students to become familiar with and proficient with the relevant tools.

However, more study has yet to be undertaken on these systems' usability and user satisfaction. This knowledge gap has a particularly detrimental impact on novice translators. As a result, this research examined the effectiveness of CAT technologies from the novice translator's viewpoint. This study's findings are intended to assist CAT tool designers and producers in making their products more valuable to translators.

2. LITERATURE REVIEW

2.1. Benefits of CAT tools

More than just human translators are needed to meet the rising market demand for translation services (Fernandez-Parra, 2016; Alotaibi, 2020; Nga & Chen, 2020; Liu, 2022). Nevertheless, there are several advantages to translating using a computer. Other technologies, such as quality control software, translation management systems, translation servers, and others, speed up a computer-assisted translation that utilizes a translation memory.

According to Peng (2018), translators save both time and energy by using CAT tools. Tong and Zhang (2019) claim that translation memory is the most significant technological innovation in computer-assisted translation. The original text and the final translation are saved in a language database when a computerized translation service is employed. The method employs a mixture of computer-assisted matching techniques to search the translation memory for often-used or very similar words, phrases, and chapters and then advises that the user reuse the most similar translation. Based on the context, the translator then has the choice to accept, change, or reject the reference translation (Li, 2015; Ngoc, 2017; Peng, 2018; Tong & Zhang, 2019). Again, the system will pre-translate such data, allowing the translator to interpret the remaining text. Consequently, CAT systems may use previously translated text to save time and reduce redundancy, resulting in quicker and more accurate translations.

Utilizing CAT tools enhances cooperation throughout translation (Marin, 2017; He, 2019; Nga & Chen, 2020; Alotaibi, 2020; Todorova, 2020). Each translation assignment is delegated to a single translator to maintain tone consistency. Due to the large volume of material that requires translation and the restricted availability of individual translators, it is difficult for a single individual to undertake even a single translation project alone. According to He (2014) and Ngoc (2017), cooperative translation complicates linguistic style homogeneity. The issue is resolved through machine translation. Translators may communicate meaning. Utilizing computer-assisted translation technologies and doing a substantial scientific study on translation implementation is vital if people want to translate high-quality material quickly while retaining enough human resources. Thao (2018) states that using CAT tools for organizing and distributing translation projects enables more translators to translate store-based cooperative management, harmonize standards and conventions, and achieve the desired outcome. The computer-assisted translation cooperative mode acts as an interpreter for shared memory, coordinates translator translation styles, and strengthens exchanges and cooperation in resource sharing to ensure uniform and standardized terminology for efficient management and collaboration on translation projects (Tong & Zhang, 2019).

Based on the above merits, the usability of CAT tools was explored in the following section.

2.2. Framework: The usability of CAT tools

ISO 9241, a process-oriented standard, provides a broader usability viewpoint than ISO/IEC 9126 (Abran et al. (2006). The ISO 9241 (2011) standard emphasizes that usability is defined by specific objectives, persons, and usage contexts. Dix et al. (2004) argue that usefulness can only be evaluated concerning its use. A process-oriented approach to usability more precisely represents in vivo quality than a product-oriented approach. Abran et al. (2003) assert that product-based and process-based usability techniques are complementary. Consequently, many authors (Dix et al., 2004; Nielsen, 1994; Fernandez-Parra, 2016) started their usability models, including elements from other usability standards. Figure 1 depicts the CAT Tool Usability Model based on ISO 9241 but includes additional usability components. Figure 1 depicts the four usability aspects of effectiveness, efficiency, satisfaction, and learnability based

on ISO 9241 (2011) and ISO/IEC 9126 (2001), which was included in five sub-dimensions usability models of Dix et al. (2004), Nielsen (1994), and Abran et al. (2003).

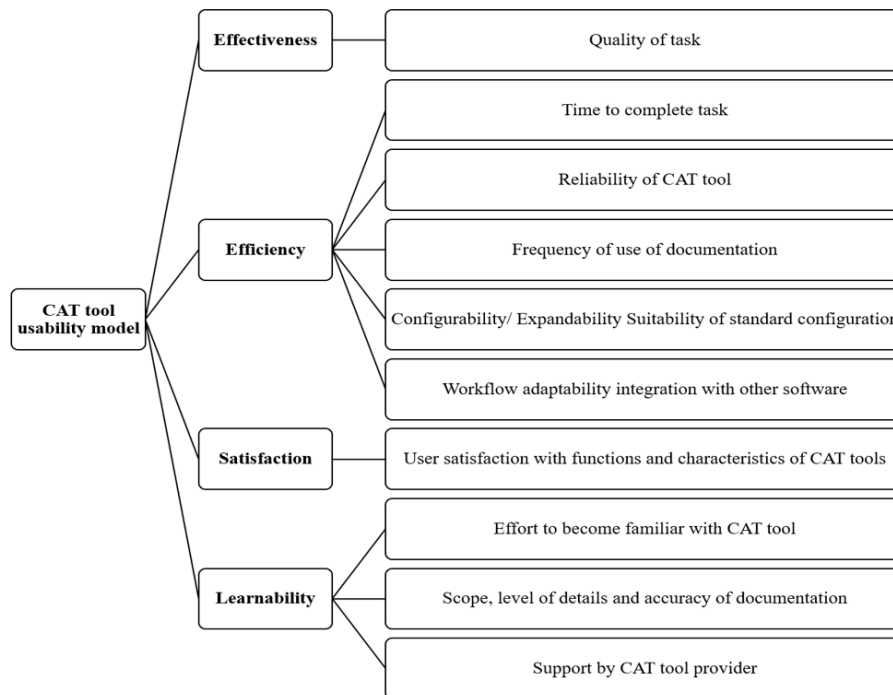


Fig. 1. A general model of CAT tool usability (Kruger, 2016)

Kruger (2016) advocates that effectiveness is a qualitative component that indicates how successfully a user can accomplish objectives or complete tasks with the application. It is possible to evaluate the effectiveness of a CAT system based on the quality of its terminology database, alignment, and human translation. Before the efficacy of a CAT tool can be evaluated, quality measures must be developed.

Effectiveness is less polished than efficiency. Below is a breakdown of the time required to accomplish a project using the CAT tool. Most usability models account for this temporal aspect, which may be easily measured using time measurements (Abran et al., 2003). Another critical aspect of CAT tool effectiveness is dependability, measured by error rate and recovery rate. Because making a mistake takes time, usability also requires time to develop. According to Kruger (2016) and Alotaibi (2020), most usability models consider the frequency with which documentation is produced to be a crucial efficiency factor. The more a user relies on the handbook, the less effective and user-friendly the product becomes. The appropriateness of the basic configuration relates to how well it performs a particular task in a given environment.

In contrast, the configurability/expandability of the CAT tool refers to how well it can be customized to meet the needs of a specific task or user and whether the user can add more capabilities. The ability to modify and integrate processes using third-party software enhances efficiency. The effectiveness with which CAT tools interact with existing processes and assist new endeavors is evaluated. Support for data interchange formats and compatibility across terminology management systems and translation memory systems are two examples. Organizational ergonomics is the optimization of sociotechnical systems based on translational ergonomics, including organizational structures, policies, and procedures. CAT tool workflow flexibility and integration are components of this.

To be satisfied, users need to enjoy using the CAT tool for its intended purposes. A defined rating system, such as the Software Usability Scale, may be used to assess customer satisfaction (Dix et al., 2006; Kruger, 2016). Thirty-one users rated the application on ten critical features on a scale from Strongly Agree to Strongly Disagree. If the system's attributes are understood, applying an appropriate rating scale may be possible.

The amount of effort the user requires to comprehend the CAT tool indicates its learnability. This document emphasizes the usefulness of CAT tools. According to Abran et al. (2003), most software usability models restrict learnability to "time to learn" before users can operate a software product reliably. However, Nielsen (1994) notes that product documentation impacts learnability. Adding such documentation would enhance the software's learnability

and breadth, depth, and precision in the context of CAT tool use. The availability of support from the tool's creators or sellers may also impact its ease of use. Open-source options such as OmegaT and Anatus may not be as reliable as proprietary options such as SDL, Across, Kilgray, etc.

2.3. The utilization of CAT tools on the global

Infrequently are CAT equipment submitted for thorough scientific testing. LeBlanc (2013) conducted a further ethnographic study at three Canadian translation businesses to examine the advantages and disadvantages of TM use in the workplace. A survey and interviews with translators were conducted to determine the influences of new technologies on the translation profession. Most respondents stated that CAT technology reduced manual labor and improved translation consistency. They had significant issues about the instrument's layout.

Lagoudaki (2020) compiled the opinions of 874 qualified translators about the benefits and drawbacks of translation memory systems. These systems need resource development, project management, quality assurance, search and translation modules construction, and collaboration. According to the study's conclusions, TM system designers often place their requirements ahead of end users. According to the survey, software providers must meet their customers' performance and feature expectations to keep customers satisfied.

Tong and Zhang (2019) have developed a CAT-based academic strategy for teaching English translation at universities. It examined how teachers instruct, how administrators lead, what subjects are taught, and how strategies are implemented. Using computer-assisted translation software in the classroom may help students learn to translate more effectively. Utilizing CAT technology improves students' English proficiency.

Alotaibi (2020) evaluated the value of CAT tools for translators. The Software Usability Measurement Inventory (SUMI) was employed to assess a system's effectiveness, impact, usefulness, control, and learnability. There were 42 responses to the online questionnaire. These instruments have exceptional global applicability. Impact and efficiency received the most outstanding marks on the usability subscales, while usefulness and learnability received the lowest ratings. Enhanced use and training of CAT technology might lead to greater translator satisfaction. Arabic translators urgently want more Arabic language resources.

Liu (2022) hypothesizes that CAT technology will allow translators to produce texts of superb quality more quickly as computer technology advances. The research evaluates the efficiency of computer-assisted translation software taught using deep learning. Based on the trendy microservice concept, this approach is also utilized to develop an electronic computer-assisted translation system. Improving system performance ensures that consumers can always access scalable, high-quality computer-assisted translation. We compare and assess Trados and Wordfast utilizing usability testing. Observing, recording, and evaluating user behavior and data is an excellent method for keeping the five usability criteria in mind. Deep learning knowledge has the potential to make translation software more trustworthy and scalable, according to the findings of these investigations.

Combining the two disciplines, CAT technologies bring fresh ideas for changing English instruction in particular contexts. This benefits students and teachers since those who grasp the language can rapidly translate and adapt to market demands. Research into implementing English-language courses for CAT technology at higher education institutions is necessary. As a result, it may assist students not only in the world but also in Vietnamese contexts in developing their translation skills, becoming more familiar with the language of their chosen profession, and gaining a better understanding of the jargon commonly used in that industry so that they can better serve those who require specialized communication in English. The following part will discuss the utilization of CAT tools in Vietnam.

2.4. The application of CAT tools in Vietnamese contexts

According to Ngoc (2017), the training programs at the tertiary level should be developed and maintained utilizing contemporary computer technology. The author researched ninety-six Vietnamese students majoring in translation in early 2016; the report exposes their genuine expectations and suggests some acceptable computer-based activities. These exercises are intended to serve as a valuable resource for teachers in similar circumstances and give students meaningful real-world experience in their chosen industry.

Students from English Department at Hue University and Hue University's Center for Translation and Interpretation were the focus of Thao's (2018) study on the advantages and disadvantages of using online and offline CAT systems for translation and interpretation. This research compared and contrasted two kinds of CAT technologies by assessing students' attitudes and judgments of using them in trials with texts translated from English to Vietnamese and vice versa. The results indicated students' feedback on the effectiveness of using translation support software in terms of the accuracy and objective effectiveness of CAT software. Concerning online translation support software, they took users to lower costs for translation work. They helped users translate faster, more accurately, and with better

quality, but it took less time to proofread the translation. Besides, the tools were easy to use and could share large and faster memory. Regarding offline translation support devices, there were more functions enhancing multi-format; the dictionary could be upgraded and updated regularly.

Nga and Chen (2020) examined how engineering students in the south of Vietnam used Google Translate to prepare for their examination. For a qualitative case study, data were collected using semi-structured interviews and in-depth observations. The statistics revealed that the majority of participants found this translation tool beneficial. It was an efficient and straightforward method for pupils to comprehend what was taught in the native language. Google Translate could not deliver a trustworthy and acceptable translation, regardless of whether the original materials included technical terminology, sophisticated vocabulary, odd texts, or meanings that confused students. Before using this tool for future translation tasks, engineering students and non-intermediate to advanced English language users should know these restrictions. This research also provides recommendations for fixing Google Translate's current shortcomings.

A small amount of study has been conducted on the usability of these systems and the degree of user satisfaction. Due to the problems, this knowledge gap has a particularly severe impact on rookie translators. This research explored the efficacy of CAT tools from the standpoint of a novice translator as a direct result of this discovery. This study will give designers and makers of CAT tools information that will assist them in enhancing the translator-friendliness of their products.

3. METHODOLOGY

3.1. Participants

Thirty-six novice Vietnamese translators attending a translation and interpretation training course at a private language center in Hanoi completed the survey. Their background information, including age, occupation, translation experience, and software skills and knowledge, is presented in Table 1 below.

Table 1. Participants' background information

		Fre.	%		Fre.	%
Gender	Male	12	33.3%	Female	24	66.7%
	18-22 years old			19-25 years old		
Occupation	full-time translator)	7	19.4%	(part-time translator)	29	80.6%
	3-4 years	4	11.1%	1-2 years	32	88.9%
Translation experience						
Software skills and knowledge	Experienced by not technical	25	69.4%	can work on most software	11	30.6%

The participants were asked which CAT tools they typically utilized when translating. According to the study, SDL Trados Studio is the most popular among participants, followed by SmartCAT. Transifex MemoQ, LingoHub, and Wordfast are a few other examples.

3.2. Data collecting tool and data analysis

The study procedures are outlined, including how data was collected and who participated. This research sought to determine how beginner Vietnamese translators evaluated the value of various CAT systems. The Software Usability Measurement Instrument (SUMI) is an international standard for evaluating the usability of the software. The 21-question questionnaire is meant to assess the following characteristics: effectiveness, efficiency, satisfaction, and learnability dimensions adapted from Kirakowski (1986). Numerous studies have shown that SUMI is a practical and trustworthy method for measuring user satisfaction with a product's usability.

A global measure of usability is also included in the survey to assess the translator's overall satisfaction. Participants indicate their level of strong disagreement, disagreement, uncertainty, agreement or strong disagreement with each of the 21 CAT dimension-related statements. Cronbach alpha was 0.76 which is considered as acceptable to ensure the reliability and validity of SUMI questionnaire. The statistics was calculated via SPSS version 25.0 for means score and standard deviation. The assessment was based on the results of a Chi-square test and the resulting data. A usability means score between 4.0 and 5.0 corresponds to the vast majority of commercially successful software applications, but a score below 4.0 suggests a below-average evaluation.

4. FINDINGS AND DISCUSSIONS

The results from the SUMI questionnaire are summarized in Table 2 below. The mean score, the standard deviation for the scale, and each of the four usability subscales is presented.

Table 2. Descriptive analysis for SUMI questionnaire

Scale	Mean score	Standard deviation
Effectiveness	3.85	1.21
Efficiency	4.38	0.76
Satisfaction	4.26	0.87
Learnability	4.10	0.97
Overall	4.15	0.95

According to the characteristics of the normal distribution, more than 68% of software will have a SUMI score between 4.0 and 5.0 or within one standard deviation of the mean. Any program that scores much higher (or lower) than these standards might be deemed remarkable (or deplorable). With an average score of 4.15, the usability of CAT tools is above average and comparable with top commercial products. All four subscales had mean values above average, with efficiency and satisfaction rating the highest; and effectiveness and learnability ranking the lowest. The inconsistency is, however, within the permitted range. Therefore the results are consistent.

The distribution of the five-Likert scale items in the population was compared to the anticipated result from the standardized base using a Chi-square test value derived for each of the 21 survey items. Twenty-one of the elements were deemed statistically significant, warranting additional investigation. When the difference was at least 0.50 or less than -0.50, it was seen as a strong indication of agreement or disagreement, respectively. A gap between 0.50 and -0.50 reflects a modest degree of agreement or disagreement. The findings are shown in Table 3.

Table 3. Items indicating statistically significant results

Items	Difference	Choice
This software responds too slowly to inputs	0.15	agreement
I would recommend this software to my colleagues	0.75	strong agreement
The instructions and prompts are useful	0.42	agreement
This software has at some time stopped unexpectedly	0.22	agreement
I enjoy the time with this software	0.66	strong agreement
Working with this software is satisfying	0.63	strong agreement
The organization of the menus seems quite logical	0.56	strong agreement
The software material is very informative	0.03	agreement
Working with this software is mentally stimulating	0.28	agreement
I feel in command of this software when it is working	0.49	agreement
I can understand and act on the information provided by this software	0.70	strong agreement
Tasks can be performed in a straightforward manner using this software	0.68	strong agreement
The speed of this software is adequate	0.56	strong agreement
The software has helped me overcome any problems I have had in using it	-0.04	disagreement
The organization of the menus seems quite logical	0.57	strong agreement
It is apparent that user needs have been fully taken into consideration	0.53	strong agreement
The software allows the user to be economic of keystrokes	0.11	agreement
It is easy to make the software do exactly what you want	-0.28	disagreement
The software presents itself in a very attractive way	0.47	agreement
It is easy to see at a glance what the options are at each stage	0.41	agreement
It is relatively easy to move from one part of a task to another	0.61	strong agreement

The average worldwide score from the SUMI survey reveals that the usability of CAT instruments is often high. Additionally, all four subscale scores were above average. Higher ratings were linked to impact and effectiveness, whereas lower ratings were assigned to usefulness and learnability. The consensus analysis revealed substantial agreement on three impact statements: recommending the software to others, having fun with it, and being satisfied. This demonstrates the participants' favorable opinions of CAT software, which supports the results in Aloitabi (2020), Nga and Chen (2020), and Liu (2022). Two comments were evaluated as very useful, and participants expressed strong agreement. Both comments praised the efficacy of the under-consideration CAT software. Most users agreed with comments praising the utility of these features, such as those praising the interface's clarity and the menus' simplicity. This finding is comparable with LeBlanc (2013) and Lagoudaki (2020). Finally, a substantial consensus was reached on two control statements that characterize the navigation and speed of the instrument. Participants' responses to an open-ended question on the software's finest feature mirrored these findings. Those novice translators remarked that the software's simplicity and clarity saved them time and effort.

Despite the constraints, more than sixty-nine percent of the population was categorized as experienced but non-technical, while 30.6% claimed they were familiar with most software. This result indicates that the participants favored the CAT tools. The SUMI study produced above-average results on all four subscales, with the lowest scores

measuring effectiveness and learnability. The results align with Ngoc (2017) and Tong and Zhang (2019). These attributes were associated with the translators' opinions of the system's friendliness in terms of communication and problem-solving, their familiarity with the program, and the readability and clarity of the product's documentation and other related materials.

5. CONCLUSIONS

Despite the importance of usability studies in improving user experience and happiness, research on CAT technology, particularly among novice Vietnamese translators, is relatively scarce. This study examined the merits and demerits of CAT tools from the perspective of novice Vietnamese translators to stimulate the development of user-centered software that meets user requirements. With the SUMI questionnaire, the researchers evaluated the efficacy of popular CAT systems from translators' viewpoints. The instrument's usefulness, efficiency, user satisfaction, and teachability were all assessed. Findings indicate that the average score was above par, indicating a high level of satisfaction.

Similarly, all four usability criteria were above average, with effectiveness and learnability scoring the lowest. In addition, CAT tool developers should prioritize product efficiency and usability to meet rookie translators' needs and increase user happiness. Furthermore, the working contexts must be altered so that more inexperienced Vietnamese translators or ones with little experience wish to participate in the study.

Even though the population (n = 36) is adequate for usability research, extrapolating the results to other situations would be inappropriate. More research on the usefulness of CAT tools in different situations and among varied user demographics is required. Independent research on applying CAT technologies like translation memory, terminology management systems, and so on is required. Additional investigation on the usability of CAT technology among novice Vietnamese translators may be performed using various usability assessment approaches.

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The Impacts of Collaborative Strategic Reading on EFL Students' TOEIC Reading Comprehension

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Abstract

The overarching goal of the study is to investigate the perspectives of twenty-six non-English majors on the types of Collaborative Strategic Reading (CSR) used in TOEIC reading classes, such as Previewing, Clink and Clunk, Getting the gist, and Wrap-up, and to evaluate the impact of these strategies on students' reading comprehension at a public university in Vietnam. A quantitative approach was utilized, which included a five-point Likert scale questionnaire adapted from Hà (2021), as well as a pre- and post-test standardized from the Longman TOEIC series. Test results reveal that once CSR was implemented, students' TOEIC reading comprehension increased statistically. Certain CSR strategies employed in TOEIC reading lessons were also well received by students. Despite multiple major shortcomings, this study may give a fresh viewpoint on reading activities that instructors might use to assist students develop their language skills.

Keywords: Collaborative strategic reading, collaborative learning, CSR, TOEIC reading.

1. INTRODUCTION

English teachers may focus on a range of objectives to improve students' reading, writing, speaking, and listening skills. Most professors place a premium on their students' reading abilities as reading is the best way to learn a language (Mathews, 2018). Reading and understanding of any subject is a skill that can be learned.

The majority of English students' desire to take the three most popular English language tests (IELTS, TOEFL, and TOEIC). Several colleges' English courses place a strong emphasis on exam preparation. In specific teaching context at University of Economics – Technology for Industries (UNETI), the TOEIC has been employed for testing and assessment since 2019. The minimum TOEIC score required for graduation is 450. Concerning the TOEIC Reading Test which consists of 100 questions, there was a lot of confusion about the TOEIC exam's reading comprehension and organization. Tokunaga (2008) reports that the majority of TOEIC test takers had never taken the exam previously. According to Cohen (2009), the vast majority of test takers are unable to properly follow the structure or read the material. For English as foreign language (EFL) students, TOEIC reading may be tough and challenging. They have difficulty with language and grammar. If students are given material in this manner, they may lose interest in reading and do poorly in English classes. Ineffective reading habits impede students' capacity to learn. A substantial majority of students lack the knowledge needed to choose an efficient reading strategy (Hà, 2021). Students become less active as a result of this condition and spend more time reading than doing anything else. Course attendance is needed. Non-native English speakers had a higher failure rate, according to Mathews (2018). Ineffective teaching and learning strategies hampered their schooling. As a result, it is the responsibility of educators to educate students with the reading abilities they need to overcome these difficulties. Each student approaches English reading assignments in a unique and strategic manner.

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Numerous academic research has been conducted to investigate effective reading education (Snow, 2002, Medina, 2011; Puspita, 2012). Only a handful of the concepts were beneficial, according to their findings. Certain prerequisites were required for teaching. Each assignment, test, and educational aim has a function. Furthermore, as Swanson et al. (2011) point out, it encourages students to engage in class discussions and learn practical skills. It's an excellent method for teaching students to think for themselves. Swanson et al. (2011) and Mathews offered content-based, discussion-based education that makes use of individual/multiple comprehension approaches (2011). (2018). These techniques may make reading easier for certain youngsters. Collaborative Strategic Reading (CSR) provides students several reading techniques. Cooperative learning and reciprocal teaching are key components of CSR, according to Klingner et al. (2012). The teacher uses think-alouds to illustrate, role-play, and teach CSR techniques such as previewing, clicking and clunking, absorbing the subject, and shutting up. Students separate into smaller groups after mastering teacher-led exercises to apply their newly gained knowledge. Students should meet in groups to discuss the author. Students are accountable for completing assigned readings of prescribed material. The group discussed and polished their ideas. Teachers of CSR should carefully assess the structure of their classrooms before providing group tasks. The professor chooses the discussion topics. One strategy supported by Mai and Vo (2021) for creating healthy and equitable relationships among students is classifying them based on their hobbies, political leanings, sexual orientations, language competence levels, and personality qualities. Higher education institutions place a larger focus on aptitude-based student sorting (Fan, 2009; Churong & Huong, 2021). Students are classified based on their academic achievement or job path. As a result, young people's ability to read written language would suffer. As a result, rather than labeling their students, teachers should engage them in open discourse (Klapwijk, 2012).

Literacy education is generally studied in Vietnam, but not CSR. Therefore, UNETI has not studied the impact of CSR on students' reading ability. Consequently, it is critical to learn more about UNETI's CSR efforts and students' perspectives on the implementation of new reading methodologies. The influence of CSR on students' reading ability was investigated, and the research's instructional design was praised. Reading education at UNETI may affect Vietnamese students' ability to grasp EFL materials. The investigations focused on two main areas:

- To what extent does CSR impact students' TOEIC reading comprehension?
- What are students' attitudes towards CSR in TOEIC reading classes?

2. LITERATURE REVIEW

2.1. Collaborative learning

Reading involves more than just word recognition (Gough & Tunmer, 1986). It is necessary information for comprehending the paragraph as a whole (Snow, 2002). Definitions of reading often emphasize the mental and emotional processes that enable the reader to make sense of what they're reading (Kong, 2006). According to Snow (2002), understanding consists of three elements: the reader, the text, and the action. Reading comprehension is often described as the capacity to comprehend written content and create personal meaning from it. The use of past knowledge, comprehension monitoring abilities, and repair procedures increases reader engagement (Snow, 2002).

The engagement of students in the study of other languages has proven useful. Fundamental to Vygotsky's (1978) theory of learning is interaction. According to Anderson (2002), active participation in class may boost students' self-assurance. In addition, your interpersonal skills and verbal fluency may increase. Language and interpersonal skill instruction are gaining importance in schools nowadays. Students may benefit by expressing a variety of perspectives, feelings, and experiences (Anderson, 2002). When students examine a text collaboratively from several viewpoints, they gain greater knowledge.

Peer collaboration has been affected by constructivism, cooperative learning, and the Zone of Proximal Development (ZPD) (Vygotsky, 1978). These perspectives emphasize the significance of the learner in the language learning process. According to Fitri (2010), students benefit from a well-rounded education when they develop relationships with their classmates, discover new perspectives, and articulate their thoughts. Education, from a constructivist perspective, is about producing meaning (Lee, 2016). Collaborating to build and enhance abilities is beneficial for students. Similar increases in student contact with the ZPD were seen. It seems probable that students will learn better if they associate with more competent peers and seek assistance from teachers.

Interaction with native speakers is an effective method for improving language skills. Therefore, educators must actively stimulate student participation in the classroom. It increases social and intellectual relationships between people.

2.2. Theoretical framework

CSR is deeply rooted in social constructivism. According to Kong (2006), Fitri (2010), and Medina (2011), schools should encourage inter- and intra-group interactions and let students to take initiative in their hands-on education. Students benefit from interactions because they get feedback on their work, are encouraged to engage in socially acceptable ways, and have a deeper understanding of the importance of cooperation and teamwork (Chng & Hng, 2021). Included are strategies for explicitly teaching, scaffolding, peer-mediated learning, and embedding help for struggling readers and English language learners (Boardman et al., 2015). Students may connect with one another and improve their higher-order cognitive talents via the use of language (Vygotsky, 1978). Vygotsky (1978) suggests that the sociocultural milieu facilitates student learning via interactions. Peers, professors, and other professionals who provide scaffolding or mediation support the learning of less capable students (Swain & Lapkin, 2011). In addition, Vygotsky (1978) argued that cultural forces affect the production of new knowledge. Interactions with others shape students' perceptions of cultural norms, skills, and talents. The purpose of touch is to "develop, modify, and reinforce higher mental processes" (Swain & Lapkin, 2011, p.6). As a consequence, Collaborative Strategic Reading takes into consideration the social environment.

2.3. Collaborative strategic reading instruction

Collaborative Strategic Reading (CSR) focuses on the development of higher-order thinking skills, such as critical reading and self-monitoring (Vaughn et al., 2013). Student groups may use tactics such as the "preview," "clink and clunk," "get the gist," and "wrap-up," to better learn and comprehend the material (Klingner & Vaughn, 1999).

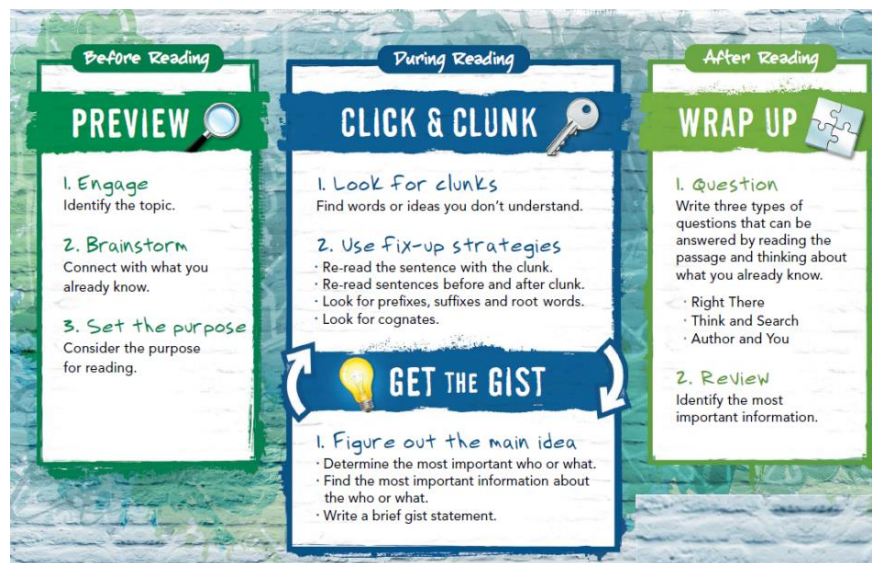


Fig. 1. Collaborative strategic reading instruction by Kingner and Vanghn (1999)

2.3.1. Preview

Students are obliged to read the specified material in its entirety. While previewing, students should have three primary goals in mind: (1) to learn as much as possible in as little time as possible; (2) to ignite their interest in the topic; and (3) to help them anticipate what they will learn in the chapter. Increases student enthusiasm in the material and encourages them to dive in immediately. Headings, bold or italicized text, and graphics such as tables, graphs, and other key information may assist students in two ways: remembering what they currently know and preparing for what they will learn. Similar to a movie trailer, students have a limited amount of time to consider and discuss the issue at hand.

2.3.2. Clink and clunk

Many learners produce clicking and clunking sounds while reading. Students will learn how to use click and clunk to evaluate their own reading comprehension and discover areas for improvement. "Click, click, click" – when the

reader interacts with the text, understanding improves naturally. Knowledge "clunks" when a learner comes across a difficult word, notion, or concept. A clunk occurs when a student has difficulty comprehending a word. Many students who struggle with reading and learning do not bother to assess their understanding. The use of clicks and clunks helps youngsters focus on what they are reading or hearing read aloud. The instructor wants to know whether what they're doing is working. "Who clunks it in the last stretch?" Once the clunks have been found, the class uses "fix-up" procedures to determine them. Kids make "clunk cards" to help them remember how to remedy frequent issues.

2.3.3. *Get the gist*

Finding the fundamental idea of a book helps students' "comprehension" of it (usually a paragraph). The goal of "getting the idea" is for students to revisit essential aspects so that they may confirm that they understand the topic. This strategy has the potential to improve students' memory. Instruct the students to reread the paragraph they just completed and choose the one notion that stands out as the most significant. Following that, you should enquire as to how they would describe the subject, and teach students how to communicate things in as few words as possible while still conveying the intended meaning.

2.3.4. *Get the gist*

Students may benefit from the wrap-up approach if they summarize important concepts and ask pertinent questions about the reading. Students should attempt to answer instructor questions on the reading whenever feasible. A query with no response is unclear and should be further upon. Therefore, students should pose inquiries requiring more examination. As in "Can you imagine what may happen if..." What are the benefits and drawbacks of..." Everyone then shares what they have learnt with the remainder of the group.

2.4. *The effectiveness of CSR in language teaching and learning*

Education encourages both strategic reading and comprehension via the use of a number of reading techniques (Klapwik, 2012; Medina, 2011; Fan, 2009). Consequently, teaching students how to read successfully is vital.

According to Alfasi (2010), skilled readers regulate their reading habits intentionally. Strategic readers, according to Alfasi, must comprehend their performance constraints, analyze their available choices, and take remedial action. Alda (2016) revealed that all CSR participants were unsatisfied readers. Positive Social Responsibility benefited the whole organization. The study indicated that entire CSR was more effective than partial CSR in enhancing reading comprehension. Students gain from a thorough CSR in order to enhance their reading comprehension. A study by Puspita (2012) presented including CSR into English instruction might improve students' reading abilities and the classroom environment. The mean scores on the pre-test, the first post-test, and the second post-test all indicate that readers' comprehension of what they read has improved. After completing CSR, students should have access to terminology, fundamental concepts, implicit and explicit data, and references. Abidin and Riswanto (2012) advocated that CSR improved reading comprehension, the acquisition of new ideas, and the desire to study. CSR improved all five components of reading comprehension: main idea, secondary ideas, passage structure, inference, and vocabulary. CSR implementation teaches readers metacognitive skills, including as planning, self-monitoring, and assessment. CSR improves readability, as indicated by Gani et al (2016). The results demonstrated that the experimental group outperformed the control group. CSR-taught readers outperformed their peers who did not get CSR instruction. Fitri (2010) found that CSR improved students' comprehension of what they read. The mean CSR scores diverged from usual reading choices. CSR improved students' reading comprehension. The Vaughn et al. (2011) research suggested that CSR might be used to teach reading and language arts. A successful investigation of the therapy's effectiveness was conducted in an environment where its implementation was straightforward. It consisted of 18 weeks of twice-weekly courses. This illustrates how quickly and with little effort significant results may be obtained. Swanson et al. (2011) examined the impact of CSR training on the reading comprehension of middle school students. It has been shown that CSR is an excellent strategy for teaching literacy skills. The next school year, these reading skills were taught to all students, not just those in the comparison or intervention groups. Riani (2013) demonstrated that using CSR improves reading comprehension. The Cycle 1 reading exam scores increased from 67 to 76, as shown by the pilot study. The average for the second cycle was 0.88. CSR also improves students' reading skills. In the third semester of the English Department at STKIP Nias Selatan, Zagoto (2016) discovered that CSR increased students'

reading comprehension much more than Discussion Strategy. The mean score of the experimental group increased when CSR was added. Through hands-on activities, students were able to grasp reading passages better using CSR techniques. Mathews (2018) analyzed the impact of CSR on the reading comprehension of twenty-four students of American history. The pre- and post-test scores of the students were statistically examined to produce a measurable answer to this research question. Given that there was no noticeable increase in students' social studies reading comprehension after CSR teaching, we may infer that CSR had no impact in this area. Through semi-structured interviews with a representative sample of CSR students, feedback on reading was acquired. Participants in the CSR exercise said that their group's collaborative effort influenced their overall opinion of CSR as a teaching technique. Collaboration simplified intricate social studies ideas.

Hà (2021) examined the influence of CSR on the reading abilities and attitudes of Vietnamese EFL students. Forty Academy of Policy and Development second-year students participated in the study, regardless of whether they were requested to conduct an experiment. The experimental group used four CSR strategies, while the control group employed just one: Preview, Click and Clunk, Get the notion, and Wrap up. The experimental class gained from the CSR intervention in English reading comprehension. CSR students had greater reading comprehension scores than non-CSR students, and the experimental class demonstrated a substantial change in their reading attitudes. Chuong and Huong (2021) investigated the impact of CSR on the reading comprehension of university students who do not major in English. Both the influence of CSR on non-English major students and their teachers' reactions are evaluated. Through a series of questions, we may determine how well responders comprehended the reading material. 39 non-English majors from Can Tho University completed pre- and post-tests for this research. For the quasi-experimental research, 17 educators completed a questionnaire, and three were interviewed in a semi-structured manner. In higher education, exams are the traditional way for evaluating students' ability to read academic content. There was a significant difference between experimental and control group outcomes. Reading comprehension increased as a result of CSR education. CSR also improves students' reading skills. Alumni of CSR have superior reading comprehension compared to the general population. Teachers were interviewed to determine the impact of CSR on students' reading abilities. Nearly all of them said it was a good idea to utilize CSR to help students improve their reading comprehension abilities, and they liked how it made students feel. They said that their youth could generate more ideas and better organize them. By learning to skim, scan, guess, and anticipate, they enhanced their reading fluency and comprehension.

In order to better prepare second-year students at UNETI for the TOEIC reading test, the researcher decided to conduct a small-scale study on CSR training. The views of TOEIC reading class participants about the usage of CSR strategies were also studied.

3. METHODOLOGY

3.1. Research design

The advantages of action research were selected. Through planning, executing, observing, and reflecting, multicultural groups in the social sector were addressed through action research. Action research in education was began in the mid-1950s. The United Kingdom and the United States conducted action research in the 1970s. Research design has followed pace since then (Mertler, 2014). Action research in education investigates academics' efforts to improve education. In addition, action research addresses real-world problems. Action research aids educators in their efforts to improve their methods. In action research, a large number of participants with variable roles are involved. Action research requires study of the issue, data gathering, and action. Action research findings may be shared with educators, parents, and other interested parties.

This research intends to establish whether the introduction of CSR into higher education has an effect on students' reading comprehension, as well as their opinions on CSR programs. In line with Mertler's (2014) action research cycle, this study was conducted over twelve intervention weeks during the second semester of the 2021-2022 school year. The methodology of the current action research study is outlined in Table 1.

Table 1. The procedure of the research with the application of CSR at UNETI

Week	Activities
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Week 1	<ul style="list-style-type: none"> - Identify problems and plan action project. - Introduce CSR to students: four comprehension strategies in terms of previewing, clicks and clunks, get the gist and wrap-up)
Week 2 - 11	<ul style="list-style-type: none"> - Carry out the Pre-test via Google form + Teacher models for reading strategy in CSR + Conduct the CSR intervention with four distinct stages in each class Stage 1: Previewing <ul style="list-style-type: none"> - Students preview the text before reading and discover keywords, headings, pictures, and charts in a short period of time. - The teacher asks questions that will encourage students to make a prediction about the text. Stage 2: Click and clunk <ul style="list-style-type: none"> - Students read through the text, and identify “clunks” or words, or concepts that are hard to understand. - Students use fix-up strategies to figure out. Stage 3: Get the gist <ul style="list-style-type: none"> - Students identify the most important ideas in the text. - Students learn to communicate the main ideas of every passage in the text in their own words. Stage 4: Wrap-up <ul style="list-style-type: none"> - Students engage in the wrap-up phase and identify the most important ideas and concepts from the entire selection they just read. - Students work together to generate their own higher-order questions to facilitate understanding of the main ideas presented in the text.
Week 12	<ul style="list-style-type: none"> - Carry out the post-test via Google form. - Deliver the questionnaire via Google form.

Longman's Lin Lougheed's New TOEIC Test Preparation Series was used to standardize both the diagnostic and the diagnostic test (4th ed.). Section 3.3 elaborated on the structure and scope of the exams (Data collection instruments). Due to the Covid-19 pandemic, all UNETI classes were conducted online using Google Meets during the second semester of the academic year 2021-2022. Coding the pre- and post-tests and submitting them to Google forms. The researcher-instructor created various criteria to ensure the validity and security of the examinations. Each reading test began and concluded precisely on time. The pre-test was given in the first week, and the post-test was given twelve weeks afterwards. Each test lasted 75 minutes and was timed using a Google form that was programmed to start and stop at certain periods. However, students had just one go at each test and were unable to take their time. In addition, the Google form implementation for certain schools restricted students from logging out and seeking for answers on other websites or via other online resources. In addition, the Department of Student Affairs at UNETI checked and provided the teacher with a photograph of the class roster, and all test takers were asked to keep their Webcams on throughout the examinations in order to eliminate the chance of cheating.

3.2. Participants

In 1956, the Ministry of Industry and Trade founded UNETI which offers majors in Accounting, Business Administration, Finance and Banking, Engineering, and Electronics. UNETI applicants must pass examinations. Students must take a placement exam to determine their appropriate course placement. Utilized throughout the training is the phrase "Market Leader" (the third edition). Workshops on grammar and vocabulary aid students in mastering their linguistic heritage. To graduate, students must finish four English credits and get a TOEIC score of at least 450. UNETI students need to develop their TOEIC reading abilities. Twenty-six students participated in the study (12 males and 14 females). They were from various regions of Vietnam, indicating that their learning styles and backgrounds varied. After visiting UNETI, participants were asked to take a placement exam to determine their English skills. Students who pass the placement exam with a score between 200 and 250 are placed in English 1 and are recognized by UNETI as proficient in basic English. For the purposes of this study, students in English 1 were considered to have a basic understanding of the language.

The headmaster first gave permission to conduct the research, followed by assistance from colleagues and UNETI authorities in addressing the study's ethical obstacles. Their identities were concealed to protect their health, privacy, and morality. At the beginning of the semester, each student learned a great deal. This page details the study's objectives, methodology, pre- and post-test findings, and student survey responses. As a consequence, students may resign from the study without penalty, and the research activity had no impact on their grades. If individuals were worried about their health, they would be more at ease and open.

3.3. Data collection instruments

Data analysis will be required to determine if the findings are spontaneous, statistically significant, or very implausible (Mertler, 2014; Stringer, 2007). For the quantitative studies, SPSS version 22 was employed. The statistical significance of a data collection is determined by the likelihood of a certain set of numbers occurring by chance. The data set is utilized to establish the significance level. The results are deemed statistically significant when the p-value is less than or equal to .05, which is the commonly accepted alpha threshold (Mertler, 2014; Stringer, 2007). In this study, the researcher calculated the dataset's significance level using a dependent or paired-sample t-test (Mertler, 2014; Stringer, 2007).

The survey data was also analyzed using the same version of SPSS. Cronbach's alpha was used to assess the consistency of the questionnaire. The Cronbach Alpha coefficient may be used to determine the reliability of a survey. If all of the questions fall within the typical range of .00 to 1.0, we may infer that they are all legitimate and correct. As shown in Table 2, the Cronbach Alpha value of .763 suggests that all of the items were generated in a consistent way.

Table 2. Reliability Statistics

Cronbach's Alpha ^a	N of Items
.763	10

4. FINDINGS AND DISCUSSIONS

4.1. The impacts of CRS on students' TOEIC reading comprehension

The descriptive statistics, minimum, maximum, mean score, and standard deviation were used to determine the average pre- and post-test TOEIC reading comprehension assessment scores of the participants. Table 3 contains the paired sample t-test.

Table 3. Pre- and post-test paired samples t-test

	Paired Samples Test						t	df	Sig. (2-tailed)
	Paired Differences			95% Confidence Interval of					
	Mean	Std. Deviation	Std. Error	Lower	Upper	the Difference			
Pre-test - Post-test	-13.923	17.978	3.526	-21.184	-6.662		-3.949	25	.001

Using a paired sample t-test to compare students' pre- and post-intervention TOEIC reading comprehension scores, Table 3 reveals that students' post-test scores are significantly higher than their pre-test levels. The participants' pre- and post-test scores were compared using a paired sample t-test to assess if there was a statistically significant change. Table 3's p-value of .001 indicates that there are significant differences between students' pre- and post-TOEIC reading test scores. These results suggest that the CSR intervention may be responsible for the gain in reading comprehension between the pre-intervention and post-intervention periods. After receiving CSR education, students' reading comprehension improved, suggesting that CSR instruction had an effect.

Table 4. The overall mean scores of participants' pre- and post- TOEIC reading tests

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	26	106	276	186.08	41.814
Post-test	26	136	301	200.00	43.133
Valid N (listwise)	26				

The lowest possible pre-test score was 106, while the maximum possible post-test score was 136, as shown in Table 4. The post-lowest possible score on the examination was 136, and the highest possible score was 301. In addition,

there was a difference between pre- and post-test scores, with the former having a mean of 186.08 and the latter having a mean of 200 and a standard deviation of 41.814. This evidence indicates that after receiving CSR, students' TOEIC reading scores improved.

4.2. Students' attitudes towards CSR strategies in TOEIC reading classes

The data from the questionnaire on students' perceptions of CSR strategies in TOEIC reading class was demonstrated in Table 5.

Table 5. Mean score and Standard Deviation of students' attitudes towards CSR strategies in TOEIC reading classes (N=26)

No.	Items	Overall mean score
1	Previewing Strategies	4.15
2	Click and Clunk Strategies	3.60
3	Getting the gist Strategies	4.10
4	Wrapping up strategies	3.94

Specific CSR strategies	Mean	Std. Deviation
1. CSR helps you to read TOEIC texts comprehensively	4.54	.989
2. CSR helps you to extract the main content of the TOEIC texts	4.19	.694
3. CSR helps you recognize the important people, places, or things in the TOEIC texts	4.00	.831
4. CSR helps you to understand confusing words and sentences	3.73	.778
5. CSR helps you to know the main content of the TOEIC texts	4.46	.508
6. CSR is useful when students employ Wh-questions to summarize the whole texts	3.96	.899
7. CSR makes you keener on addressing comprehension problems in the TOEIC texts	3.00	.661
8. CSR helps you to generate questions about the TOEIC texts	3.46	.761
9. CSR helps students to generate their own questions to check their understanding of the TOEIC texts	3.92	.935
10. CSR helps you to understand the TOEIC texts	4.42	.659

Table 5 displays many CSR ways (items 1, 5, and 8 refer to Previewing strategies; items 4, 7, and 10 concern Click and Clunk strategies; items 2, 3 are Getting the gist strategies; items 6, and 9 represent Wrap-up strategies). The Previewing techniques received the highest mean score (4.15), followed by the Getting the gist methods (4.10), the Wrap-up methods (3.94), and the Click and Clunk methods (3.88). (3.60). These results indicated that almost all CSR-studying students evaluated the introduction of CSR into TOEIC education favorably.

The majority of students (M=4.54, D=0.989) indicated that CSR enhanced their TOEIC passage understanding. CSR's Previewing strategy, which helps students identify the overall themes in TOEIC reading passages, rounds out the top two (M=4.46) strategies. The findings reveal that the lowest mean scores were awarded for students' motivation to overcome comprehension challenges in TOEIC passages (M=3.00) and their ability to comprehend difficult words and sentences (M=3.73).

The good findings of the students' survey show that CSR and its approaches were effective in altering their reading attitudes. The majority of my TOEIC reading students understood the usefulness of CSR strategies.

CSR-exposed TOEIC students exhibited a broad variety of reading comprehension abilities, according to the statistical data. The current study's results are considerable and parallel those of previous research by Abidin and Riswanto (2012), Alda (2016), Gani et al. (2016), Hà (2021), Churong and Huong (2021). These studies all indicated that CSR has positive benefits on students. As a consequence, the difference between the pre- and post-treatment evaluations of the patients was statistically significant and favorable. The research revealed that when students applied comprehension tactics while studying in groups, their reading comprehension improved considerably. Mathews (2018), who explores the effect of CSR on students' reading comprehension and their views of CSR in social studies classrooms, reaches the opposite conclusion. According to the findings of Mathews's (2018) study, CSR had no effect

on any of these traits. The statistical analysis revealed that the distributions of the pre- and post-test results were comparable. This educator-researcher found that the impacts of CSR on learners' reading skills in that situation were insignificant. Changes in environment, participant characteristics and backgrounds, and test formats are a few of the signs that may contribute to contradictory findings.

The participants have a good impression of CSR methods and are receptive to having them applied in their TOEIC reading courses, as shown by their average evaluations. The majority of responders found previewing tactics to be quite beneficial. This study adds validity to Hà's (2021) conclusion that the great majority of students believe that Previewing procedures enhance text comprehension. Although this is true, current research do not fully depict the attitudes of Hà students about Click and Clunk (2021). Participants in Hà's (2021) research liked employing Click and Clunk tactics to learn difficult words and phrases; yet, the current study's results indicate that students were least interested in identifying the meaning of difficult vocabulary or sentences. Swanson et al. (2011), Vaughn et al. (2011), and Zagoto (2016) all found that the vast majority of students viewed CSR favorably. According to Zagoto (2016), the great majority of respondents said CSR should be supported.

5. CONCLUSIONS

The purpose of this research was to determine the benefits of using CSR to improve students' reading comprehension and perspectives on various types of CSR. This study sought to determine if there was a statistically significant improvement in students' reading comprehension after CSR education, as well as whether students had positive or negative attitudes about various types of CSR. The outcomes of this research were mainly reliant on the students' pre- and post-test scores, as well as their survey replies. The quantitative outcomes of this study revealed that the introduction of CSR increased learners' reading performance, and that participants were aware of applying specific CSR in connection to Previewing, Click and Clunk, Getting the Concept, and Wrapping. One may argue that CSR is the reason students are better readers and like reading in general. These results may be valuable to English professors at UNETI. The research started with a look at how learners read in a foreign language from a CSR aspect. The second finding, students' understanding of CSR usage, suggests that SCR should be included in further TOEIC courses at UNETI to help students become better readers. Finally, it might be included into the curriculum reform reading comprehension textbooks that are now used to instruct college students.

However, from the beginning to the finish of the study, there are a number of constraints. The sample size is insufficient to generalize to all college students who speak English as their first language. The Covid-19 Pandemic broke out during the intervention, greatly complicating data gathering. The students took CSR's online TOEIC preparation sessions and completed the Google Forms pre- and post-tests as well as the survey. As a result, the teacher-researcher struggled to keep up with classroom activities. A multilevel model to account for data clustering within and across classes was not available for this experiment due to budget constraints. As a result, future research should include more individuals. The quality and efficacy of the consultation will improve as the number of participants grows. Furthermore, collecting quantitative and qualitative data utilizing mixed techniques may provide a more comprehensive view of how students use CSR. It has been suggested that propensity score matching be used in experimental or quasi-experimental studies, since more CSR instruction should result in greater reading progress for students over time. The study had a few flaws, but there is little question that it added to what educators already knew about how to teach reading and how language is learned.

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Leadership Changes in the Last Decade from Operational Excellence's Perspective

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Abstract

There are a number of new thought-provoking elements and approaches, and there is a fundamental paradigm shift from traditional, hierarchical leadership to more participative leadership. Operational Excellence (OE)-initiatives of this era focus more on ownership and self-organization and the range of variation in leadership is becoming broader. Leadership is more individualized, depending on the situation or the employees. It is a process over a longer period, where one reminds each other again and again and regularly goes into reflection together. If one follows the publications, one will see a multitude of new terms on the topic of leadership. There is adaptive, authentic, charismatic, digital, empowering, female participative and transformational leadership all of them will be mentioned in this paper. Thus, leadership needs a variation of different leadership paths. The world is becoming more dynamic, more diverse and faster. Markets are changing and technology creates new opportunities. Action is becoming more unpredictable, less manageable and harder to plan. This leads to the need to be more flexible in OE-initiatives and to make greater use of the intelligence of the group. Therefore, an important task of leadership in OE-initiatives is to generate enthusiasm for OE-processes. Change in OE-initiatives is not a necessary evil, but eminently important for the company. Leadership is a function that can be understood and perceived differently depending on the acute challenge, one's own attitude, the societal context and the available skills. In times of massive changes that are neither calculable nor predictable in the long term and are sometimes contradictory in themselves, and which trigger fear through the uncertainty associated with them, there are basically two options: Either a corresponding heroic leadership according to the principle of the old hierarchical order or new governance models for the new context. The paper shows why only the latter can be crowned with success, how these should be designed and what they mean for leaders and OE initiatives. Companies must realign themselves to the changing market requirements due to globalization, take on leadership in OE-initiatives, abandon previous behaviours and realign them. The challenge lies in creating an attractive image of the future and winning employees over to it.

Keywords: Operational excellence, leadership, skills, organisational change, learning organization,

1. INTRODUCTION

1.1 Leadership

The term leadership refers to the conscious and goal-oriented influence of managers on their employees in order to achieve or solve work tasks. Managers need employees who act independently in order to achieve goals. The art of leadership is to motivate employees to work with commitment. Employees should be guided to implement common plans and goals. Leadership can also be compared to the task of setting the direction, coordinating, controlling, but also taking responsibility.

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1.2 Leadership-manager

The leadership manager is a mediator between the company and the employees. He/she must communicate company's goals to departments and teams, but at the same time protect and represent the interests of subordinate staffs. A good manager can bring about the state desired by the company and the staffs. The tasks that a manager must cope with today are very complex and demanding. They go from the selection of the staffs over these to lead, to judge, to promote, to control over conflicts mediate, decisions make and answer for up to planning and administering a budget.

1.3 Leadership-work

Ever flatter hierarchies present managers with new challenges. Staff needs a reliable leader who can create acceptable conditions. Leadership work is more challenging than ever, and the focus must be consciously on the leadership of tomorrow. Important trends and future topics that have an influence on the company must be recognized. The framework of leadership must respond to changing goals and values, expectations and needs, and changing resources.

2. THEORETICAL ASPECTS OF LEADERSHIP

Leadership means providing employees with appropriate conditions so that activities and assignments can be processed in a goal-oriented, effective and independent manner (Beresford, 2018). This is usually done by a manager who is higher in the hierarchy of the respective company and through targeted influencing of subordinate colleagues (Burns, 1978). The distribution of tasks and the control of implementation are core tasks of the manager's responsibility. The employees are to be led in such a way that the best possible cooperation can be achieved for the given goal (Burke et al., 2006). Leadership is thus a targeted control of the human behaviour of the employees, which is influenced in order to successfully implement the goals of the company (Colbert et al., 2016). In addition to the orientation towards achieving operational goals, leadership also means maintaining or improving the strength of the group cohesion and the motivation of the employees. Leadership is therefore always characterised by interpersonal interaction, communication and the relationship between personal relations (Cheong et al., 2016). The transfer of responsibility and the development of problem- and solution-oriented personal initiatives by granting employees room for manoeuvre are the hallmarks of people-oriented leadership. According to Scholz, it is useful to distinguish between the division of leadership behaviour on three different levels: the operational, tactical and strategic levels (Daft et al., 2010). On the operational level, the individual relationship between supervisor and employee is considered; on the tactical level, the leadership principles are examined; and on the strategic level, the concept of leadership is expanded to include the respective corporate culture (Decker and Van Quaquebeke, 2015). However, in addition to all the theoretical possibilities, one further principle must always be taken to heart. Leadership of personnel cannot be achieved through a uniform style. The employees, but also factors such as time, situation and social environment must always be considered in order to be able to successfully lead the employees (Dinh et al., 2014).

3. DEFINITIONS OF LEADERSHIP AND CHANGE

Leadership research can look back on a long tradition. The ancient philosophers Plato and Aristotle already dealt with the topic of leadership. The focus was on the nature of leadership in a social and political context. A few centuries later, poets such as Niccolò Machiavelli and William Shakespeare placed great emphasis on the ambitions of the individual. They created portraits and stories about great leaders, about the Great Men. Karl Marx, Charles Darwin and Max Weber brought through their works mainly rational and normative as well as biological perspective of leadership. The modern view of leadership by Sigmund Freud and Burrhus Skinner put the focus on the behaviour and personality of the leader (Srivastava and Jain, 2017). Depending on the perspective, experience and background, the term leadership is explained and understood. In this context, the mental models of the individual, such as the manager, are very significant. The underlying human image influences the view and understanding of good leadership. (Sharma and Kirkman, 2015). Dinh et al. define leadership as follows: "Leadership is the process of influencing the activities of an organised group towards goal setting and goal achievement." (Dinh. et al., 2014). Hwanger et al. (2013) define leadership as follows: "Leadership is the conscious and goal-oriented exertion of influence on people". The goals of influence usually follow from the purposes of the organisation in which leadership is exercised (Timothy et al., 2011).

3.1. Leadership

Leadership is a continuous process of problem identification and problem solving with the aim of securing the existence of the company, promoting quantitative and qualitative growth and ensuring adequate profitability. A manager's leadership competence is revealed in his behaviour and his choice of leadership instruments in the respective situation and is the result of practice, self-critical reflection and, last but not least, his experience (Bäcklander, 2019). One can speak of actual change when the immaterial and materialised structures, the order of reality and its embodiment in materialisations change. A leadership style is a long-term, relatively stable and situation-independent behavioural pattern of the leader, which at the same time expresses the basic attitude towards the employees (Noll et al., 2017; Stray et al., 2011). There is no ideal leadership style; the leadership style must be adapted to the respective situation. A suitable leadership style depends on the leader, the situation, the task and the employees (Lee et al., 2017). In a crisis, the authoritative leadership style is the only applicable one. Whether authoritative or cooperative leadership style, what counts is only the efficiency of a leader's behaviour while maintaining basic ethical and moral values (Sharma and Kirkman, 2015).

3.2. Change

It is not new, nor does it come as a surprise. If one looks back to the 60s or 70s, how leadership was exercised, one can state a considerable change. Leading by hierarchy and by positional power was the common practice at that time. When a director visited a company, the red carpet was rolled out. Everything was geared towards making everything right for the director. Of course, even then there were managers who, without external insignia of power anchored in the hierarchy, achieved acceptance among their employees and motivated them to successfully achieve their goals. And this without having to rely on fear reflexes triggered by pressure or the threat of punishment (Marques, 2015). Change in the organisation means that the form of the organisation in which a company finds an embodiment is in motion. If irritations, disturbances and contradictions are only assimilated, one cannot speak of change. Only when a significant change in the order of reality comes about within the framework of accommodation does organisational change take place. Change does not amount to primarily changing people (Kinsey Goman, 2017). This does not imply a disregard for people, but rather the idea that people and the organisational event stream are in a relationship of participation or loose structural coupling that ensures both sides their integrity and autonomy (Lawler, 2009). On one hand, people participate in the organisational reality construction and order primarily through the discourses. On the other hand, the production of a company-specific order of reality is much more than a summative result of the contributions of an individual to the organisational flow of events. Only when common descriptions cause unspoken uncertainties of expectations of a multitude of actors in a company to drift can reflexively learning and thus change take place (Gordon, 2017). Organisational change encompasses all planned, managed, organised and controlled efforts to anticipate and target organisational design with the purpose of increasing efficiency (Kinsey Goman, 2017).

4. CLASSICAL LEADERSHIP STYLES

Burns (1978) describes the traditional leadership styles according to Max Weber (1864-1920) as follows: autocratic: strict organisation, autocracy, no participation of employees in decisions, discipline; charismatic: charisma and charisma are the basis for decisions; bureaucratic: the function is not bound to a person but lent and transferable, service instructions and job descriptions regulate the cooperation. Furthermore, the classic leadership styles according to Lewin (1890-1947) are cited. The authoritarian leadership style is characterised by the following features: the leader decides autonomously, the participation of the group is excluded, work is done only according to instructions, personal initiative and innovative behaviour are undesirable. The only advantage is the ability to act quickly in critical situations. On the other hand, the authoritarian style of leadership has many more disadvantages: employees are demotivated, personal initiative is slackened, employees only act on instructions. Due to the concentration on one person, there is a high risk of wrong decisions (Burke et al., 2006). The democratic management style is characterised by decision-making processes that are comprehensible to all employees, a high level of information, communication and room for initiative and creativity. Staff motivation is encouraged, and their ideas and suggestions are taken seriously. The supervisor has the possibility to delegate. But decisions take more time, the supervisor tries to please everyone, but he cannot assert himself in an emergency. In the laissez-faire approach, decisions and their review are the responsibility of the group. The staff should be able to identify the right paths and tasks. The personal strengths of the staff can be brought to bear. On the other hand, some staff cannot handle the high degree of freedom. And without the ordering hand of the supervisor, disorientation can easily occur (Stippeler et al., 2011).

4.1 *Authoritarian leadership style*

One way of leading companies is the authoritarian leadership style, also known as autocratic leadership. Here, the sole power and responsibility lie with the head of the company. The employees' right to have a say is severely restricted. Therefore, the question arises more and more often how the authoritarian style of leadership affects the motivation of the employees and whether this type of leadership is still in keeping with the times. The authoritarian management style is characterised by the fact that a manager gives precise instructions and closely monitors employee results. There is a clear catalogue of rules for company processes, peppered with instructions, which determines the entire work process in the sense of directive leadership. Historically, the principle of authoritarian leadership goes back to Frederick Winslow Taylor. Depending on the situation and the work process, decisions can be made very quickly in this way, as the decision-making power lies solely with the leader. The employees, on the other hand, have few opportunities to contribute ideas and creativity to the day-to-day work. They are expected to fulfil the rules and tasks in every detail. This can dampen the employees' motivation. With authoritarian leadership, most information is concentrated at the management level - employees have only limited access to it. Instead, the manager delegates the tasks at hand, thus gaining decision-making power over the entire company. The basic concept in authoritarian leadership behaviour goes back to orders and control. Accordingly, decision-making processes run from the top down. There is no room for criticism or counterarguments from employees. This results in a strict separation of subordinates and managers, the opposite of a flat hierarchy. Therefore, there is sometimes talk of a hierarchical style of leadership. This type of leadership creates a certain distance between the manager and the employees, because the latter are hardly included in the decision-making process. In an authoritarian style of leadership, the scope for action and potential for development is severely limited by the constant control at work.

4.2 *Transactional leadership style PLAGIARISM*

As the name suggests, the focus of this leadership style is on a transaction, namely money in exchange for performance. It is therefore a factual exchange relationship between employees and the company, whereby employees are assumed to work out of purely extrinsic motivation. In other words, they work to earn money, no more and no less. Those who perform better receive a higher reward in the form of bonuses, allowances or salary adjustments, and earn better career opportunities. On the other hand, lack of performance is punished by sanctions. Kurt Lewin would probably best refer to this type of leadership behavior as an authoritarian leadership style. In contrast to transformational leadership, transactional leadership in the company is characterized by clear features. The distribution and execution of tasks are clearly defined by managers, working hours are fixed, and the company's goals are communicated transparently to employees.

Advantages/disadvantages of transactional leadership: Clear rules and defined goals lead to certainty of action among employees. This can be particularly effective for routine activities. We have already described in a separate article about corporate purpose that some companies, due to their field of activity, offer few points of reference for managers to intrinsically motivate employees for the vision and mission of the company. In such a company, it is therefore all the more appropriate to apply transactional leadership and to win the appreciation of the employees with attractive compensation and a clear structure with regard to the work processes. In particular, the structure clearly defined by the manager and the transparent communication of objectives can lead to increased and task-oriented working practices among employees in such a case. The disadvantage of such leadership behavior is that employees run the risk of losing their desire to work. Those who lead transactionally basically have two options for responding to the results of their employees: Those who perform well are rewarded accordingly, and those who perform poorly are sanctioned. With such a small spectrum of reactions regarding the work performed, it can quickly happen that employees become emotionally deadened and lose motivation for their work, which results in poorer performance.

5. MODERN LEADERSHIP STYLES

Since the mid-1980s, there has been a paradigm shift from "traditional" leadership to New Leadership (Hunt, 1999). With the New Leadership theory, a new category of leadership theories emerged that increasingly focused on the emotional aspects of the leadership process. Some of the approaches of New Leadership can already be seen as hybrid forms of leadership theories, as they combine existing approaches and insights (Sohm, 2007). Economic systems and societies are in upheaval (Mayrhofer, 2010). Wunderer (1997) speaks of a change in values and describes how new values are formed in society or how the intensity or ranking of certain values changes. These changes in values already started in the sixties.

5.1 Adaptive leadership style

Another leadership trend is adaptive leadership as a further development of systemic leadership processes. Adaptive leadership means leadership with innovation and flexibility. Systemic leadership is based on the realisation of the complexity of organisations, which are self-contained systems with their own laws that cannot be controlled from the outside. The self-organisation of those led results in the discarding of old habits and the changing of firmly anchored patterns of behaviour so that flexible and innovative developments can take effect at all organisational levels (Nas-tanski, 2002; Bennis, 2003). The collective makes an effort so that the capacity for innovation is increased. If the leader adapts to the changing needs and expectations of the employees, it can result in high emotional commitment. Organisational literature also shows that innovation and corporate change should be considered together. It states that innovation is one of the most important determinants of progress and change. The tendency of employees to want to stay in the company can be important for the ability of managers to plan and implement measures. Loyalty implies sustainability and can be seen as a competitive advantage. In the absence of emotional commitment, the risk of demotivation and destructive employee behaviour, such as turnover or absenteeism, increases (Glover et al., 2002).

5.2 Authentic leadership style

Authentic leadership describes the behaviour and characteristics of leaders who are honest and transparent in their interactions with others, have good self-awareness of their strengths and weaknesses, have internalised moral values and behave congruently with them (Gardner et al., 2011). The construct of authentic leadership goes beyond the concept of authenticity in the conventional sense and takes into account considerations of trust and morality in everyday leadership (Avolio & Gardner, 2005; Peus, Wesche, & Braun, 2015). The actions of the leader are guided by moral principles and are characterised by fairness, transparency and integrity. According to this definition, authentic leaders lead their employees according to high moral standards and on the basis of an inner, value-based conviction: their words and deeds match. Authentic leadership naturally also presupposes that the corporate culture in one's own organisation is examined. A significant divergence in ethical and moral principles and values should then also lead to personnel consequences. The success of this leadership development is determined by the followers. They must be inspired and convinced that it makes sense to follow (Salzwedel and Tödter, 2013; Peus et al., 2015).

5.3 Charismatic leadership style

Charismatic leadership is considered a sub-form of transformational leadership, since charismatic leaders are of particular importance in change situations. This is demonstrated by the fact that leaders "set role models, radiate competence and courage, describe clear ideological goals, and have high expectations of their employees" and courage, but also by placing and expressing trust in the abilities of the and support them in achieving their goals". These behaviours serve emotional identification with the leader. The self-concept of the leader is changed, and the identity of the individual is linked to that of the organisation. (Shamir and Howell, 1999).

5.4 Digital leadership style

Beresford (2018) argues that digitalisation of production processes and services as well as ever shorter product life cycles are bringing about significant changes for companies. How companies develop, produce, sell and continuously improve their products and services in the near future is currently significantly influenced by concepts and solutions discussed under the term "Industry 4.0". The term stands for a new digital age of industrialisation, which is characterised by increasing networking and integration of business processes, machines, IT systems and human work performance (Colbert et al., 2016; Avolio et al., 2009). Information technologies, data management systems, machines with artificial intelligence and new media are not only changing markets, industries, company structures, production processes and customer relations, but also the forms of working and living together. This will have a direct and indirect impact on all people involved in the economy. A very special role in this digital transformation is played by the managers, who are faced with special challenges: Their task is to manage the change, adapt structures and create acceptance for digitalisation among the workforce in order to secure the competitiveness of the company in the long term. At the same time, it is of particular importance that managers develop their own leadership personality and acquire special leadership competences in order to be able to act successfully in digital contexts (Van Kleef et al., 2012). In corporate practice as well as in academic literature, various terms have been used to describe leadership and digitalisation. This paper is based on the following definitions of leadership:

Leader in an institutional sense refers to those actors in organisations who, as superiors, are endowed with powers of instruction and at the same time are responsible for digitalisation in companies. This includes, for example, managing directors, Chief Digital Officers (CDOs) or IT-department heads.

Leadership in a functional sense focuses on an even broader understanding: Here, it is about the fulfilment of tasks in digital organisational contexts mediated by digital media, independent of formal positions. In this sense, leadership is basically possible through all those actors who use digital media for interaction with other actors and, through this, use various digital influence potentials that go far beyond instructional powers, e.g. IT expert knowledge, access to digital information, etc.. As leaders in an institutional sense, executives thus function particularly as multipliers of digitalisation, since their central position enables them to carry various digitalisation topics into the company and to help shape digital transformation.

5.5 Empowering leadership style

Empowering leadership is leadership that explicitly aims to increase employees' perception of self-efficacy, control, responsibility and competence (Sharma and Kirkman, 2015; Van Dierendonck, 2011). Organisational learning and the emergence of innovations are assigned to the field of "continuous change". In view of the leadership behaviour in this context, it is mainly a matter of designing conducive framework conditions for individual and collective learning in the company (Pearce et al., 2003). Cheong and colleagues (2016) assume that a manager is confronted with a number of dilemmas in everyday working life, which place multi-layered and partly paradoxical demands on him or her. In the model, four central poles are raised, which result in eight roles that a leader should master. Experts in academia today agree that leadership is an important influence for organisational learning (Amundsen and Martinsen, 2014). Empirical evidence has shown that leaders promote or enable organisational learning by creating a positive organisational learning context and ensuring a shared view of problems and their causes. Through this shared view of problems among individuals, groups and in the company, they stimulate learning processes and in turn integrate what they have learned into overarching projects, work content or work processes. They then ensure that what has been learned is permanently anchored in organisational guidelines and standards (Vecchio et al., 2010).

5.6 Female leadership style

Modern leadership theories try to take personality, behaviour and context into account (Dörr et al., 2013) and can be summarised under the keyword's visions, inspiration, emotions and values (Avolio et al., 2009). Within leadership theories regarding effective leadership, there seems to be a trend from "typically male" to "typically female" attributes. Women are more likely to use effective leadership models, such as transformational or democratic leadership, but women are nevertheless underrepresented in leadership (Daft et al., 2010). Women pursue their own leadership style, which is at least as useful. Various studies have shown that women outperform men in most of the characteristics necessary for successful leadership. There is a female leadership style, however, not only practised by women, from which companies benefit. As leadership in the future depends on complex knowledge and innovation from all employees, new leadership models will focus more on integration of ideas, collaboration and inclusion. As leadership styles evolve, "feminine strengths are increasingly sought after. Moreover, the very behaviours seen as critical to future development are rare in today's business environment, with the majority of leaders who rank the four behaviours (intellectual challenge, inspiration, participative decision-making, expectations and rewards) as most important saying they are lacking in their company's current leadership practices. Women being underrepresented in leadership positions is likely to reduce business success (Hannagan, 2008; Piha, 2006). Women are obviously very different from men in many ways. Different communication styles Women tend to have a relationship-oriented communication style and are often more modest. According to studies, gender differences in terms of overconfidence are an important reason why there is a shortage of female leaders. In a competitive environment, women are much less likely to be selected as leaders than their abilities would suggest. This is partly due to the fact that individuals remember their past performance less well, and this in turn has an impact on decisions made collectively. Overconfidence has been shown to affect managerial decisions and distort investment decisions. This difference can be overcome, for example, by developing reliable performance measures (Eifert, 2011; Wunderer & Dick, 1997). Women are generally uncomfortable in the power structures of their companies; they either despise political tactics, in the sense of self-promotion and greed for power, or use it excessively at the expense of their, male and female colleagues. Women often take competition more personally. Instead of accepting that sometimes one wins and sometimes the other, they only see black and white. Women need to develop more understanding of the middle. Women are mainly driven by the following: they want to make a difference, they want to feel a challenge, they want to believe in the fundamental direction of their company, they strive for satisfaction in the team and recognition.

5.7 Participative leadership style

Introduced by Barnard (1938) the participative leadership style will be increasingly in demand with regard to the growing complexity of a modern and technologized company in decision-making and its implementation. In times when leadership is characterised as an activity rather than a position of power, a horizontal distribution of information can be helpful to let hierarchical differences fade into the background. In relation to demographic change, for example, companies can build up their own knowledge networks that counteract the loss of in-house knowledge. Growing personal responsibility, appreciation and mutual trust can at the same time be effective as characteristics and as a connection of company success, employee satisfaction and willingness to perform. Involving employees in decision-making is basically common in performance-oriented countries characterised by individualisation (Miao et al., 2014). New working conditions resulting from developments in structural change, mechanisation and globalisation are leading to new, more open and flexible forms of work. This includes the growing importance of employees' personal responsibility and the establishment of virtual and heterogeneous teams for efficient task management. The organisation of business processes in teams with rather flat hierarchies allows individual performance to be replaced by a group result composed of individual contributions. Thus, the leader must also meet other demands, not only the interests of an individual employee, but also of the group as a whole. A difficulty can arise in the management of virtual teams, since neither the team members, the manager nor the individual members have personal contact with each other. Globalisation does not only require practical team leadership skills. It can be very helpful for the leader of a heterogeneous team to adjust to the different ethnic backgrounds and value views of the individual group members in advance (Prescott and Bogg, 2011; Walby, 2011).

5.8 Transformational leadership style

The transformational leadership style is characterised by an inspiring and relationship-oriented leader whose task is to forge social values, ethical guidelines and visions and to communicate these. The guiding principles of leadership are integrity, fairness and justice (Bass and Avolio, 1995). The decisive factor for leadership success is the personality of the leader. Transformational leadership is characterised by four features: idealised influence, inspirational motivation, intellectual stimulation and individual consideration. Empirical studies show that individualised leadership can promote the intellectual abilities and interests of employees (Dinh et al., 2014). Positive impact of transformational leadership style on employee job satisfaction, leader performance, leadership effectiveness and organisational success has been demonstrated. Furthermore, the transformational leadership style also has a positive effect on employee participation, creativity and the acceptance of measures for a better work-life balance (Harter et al., 2002; May et al., 2004; Xu and Thomas, 2011).

Advantages/disadvantages of transformational leadership: The transformational leadership style offers advantages for complex tasks. Rigid rules and structures are a hindrance to the work process. However, 80% of the tasks in a company are simple or complicated. Transformational leaders set an example and build trust, they behave in a way that inspires respect, admiration and trust in their employees. They are reliable in their words and deeds and meet high ethical and moral standards; in addition, they put the overall interest of their organization above their personal, self-centred goals and benefits. Consequence: this type of influence is much more effective than any pressure from above. The transformational leadership style inspires employees by setting challenging, attractive goals and clarifying the meaning of these goals and tasks; it promotes team spirit, optimism and commitment to working on the common task. Result: Above-average performance through pride in achievements. The biggest disadvantage of transformational leadership is the eternal talk about visions. It can also be a hindrance if the work process consists of routine tasks. The biggest disadvantage of transformational leadership style is the dependency the organization gives itself to such leaders.

5.9 Servant leadership style

Robert Greenleaf coined the term of this leadership style as early as 1970. He formulated his understanding of "servant leadership" in his essay "The Servant as Leader". Servant leadership relies on flat hierarchies, with leaders communicating with their employees at eye level. Leaders offer employees several opportunities to develop and grow beyond themselves. The focus is on a healthy working atmosphere in the company and in the individual teams. Servant leadership is therefore leadership with feeling. The situation is quite different with classical leadership styles: Here, turnover is always in the foreground. Those who do not deliver the required performance can quickly feel marginalised and no longer valued. There is often a lot of competition among employees and there is a high turnover. The servant leader is the guiding force of a company. Unlike "traditional" leadership styles, where managers pass on instructions to the team, the servant leader adopts a servant attitude towards the employees. This is because in servant leadership, serving comes before leading. A servant entrepreneur does not primarily seek status or recognition but acts out of an intrinsic motivation. In order to be able to live this kind of management successfully, a servant leader needs to possess

a number of competencies. Characteristics such as empathy, trust, authenticity and humility are, after all, among the typical qualities of servant leadership. A servant leader must be able to empathise with his or her employees and accept their diversity. And active listening, without prejudice or judgement, not only promotes empathy, but also the perception of conflicts. A good servant leader resolves conflicts honestly. He promotes the community, but also the personal responsibility and talent development of his staff. The servant leader also acts with intuition and foresight, convinces through his or her enthusiasm and inspires trust. And a servant leader finds the right balance between "tightening the reins" and "letting things happen".

6. CONCLUSION

The field of leadership research is broad, and the topics discussed are diverse; it is constantly in motion and produces almost endless literature. The task of research seems to have been the same for years: Keep going - because it has not yet reached its goal. The above description of the research and models that have shaped the discipline has made it clear how the search for an explanation of the phenomenon of good leadership has taken place in ever wider circles. First was the leader himself, then came his behaviours, later the situational variables. The follower, his motivation and abilities play a role in the leadership process, as does the interpersonal relationship. The fact that the models became more and more complex but that neither a definitive explanation nor a patent remedy for good leadership could be found seems to have led to a liberation and trivialisation of the topic, especially in popular literature. Without wanting to diminish the importance of authenticity for good leadership - simply being oneself does not seem to be a sufficient answer to the leadership question.

6.1. Summary and contribution

The purpose of this paper was to provide clarity on what leadership and leadership styles are, to identify critical characteristics of effective leadership and to show that servant-leadership, for example, meets the criteria for effective leadership. The evolutionary developmental approach used allows many seemingly disparate leadership theories to be grouped into nine specific and ordered categories. In the past, researchers have examined specific components of leadership without knowing how their findings fit into the larger puzzle. Moreover, practising managers have only been exposed to narrow elements of leadership. Only with an integrative framework will it be possible to make coordinated efforts to advance leadership theory. This overview of leadership theory points to some important new directions for the future practice of leadership. The new leader must draw on many new qualities to be effective. The new leader must be visionary, willing to take risks and highly adaptable to change. He or she must also be willing to delegate authority and focus on innovation. The new leader must exemplify the values, goals and culture of the organisation and be very aware of the environmental factors that affect the organisation (Rosow, 1985). The new leader must adopt a new view of power. Whereas the old view of power was about dominating subordinates, the new strategy should be to build the capabilities and confidence of subordinates. Leaders need to lead by empowering others and place increasing emphasis on statesmanship (Pascarella and Cook, 1978). Leaders need to adopt a more collective understanding of leadership, where the leader's influence is spread across all levels of the organisation (Osborn, Morris and Connor, 1984). While an assertive, visible leader is essential at the top, there must be complementary operational and institutional leadership at lower levels (Nadler and Tushman, 1988). Leaders need to pay more attention to strategic thinking and intellectual activities at the Top of the organisation. Leaders are most effective when they are able to understand, visualise, conceptualise and articulate to their colleagues and subordinates the opportunities and threats facing the organisation. The "new leader", is a person who inspires people to act, develops followers into leaders and turns organisational members into agents of change.

6.2. Limitations and future research

This paper identifies some limitations that future researchers can address. First, it relied only on journal articles published by six of the most prominent academic publishers: Emerald, Elsevier, Sage, Springer, Taylor and Francis. While this was done to ensure the quality of the articles studied, it also means that other valuable articles not published by these publishers were excluded. On the one hand, future researchers can broaden the selection criteria for the articles to increase the validity of the study. On the other hand, future researchers are encouraged to think about alternative leadership styles that are equally or more appropriate in today's workplace and to present these as well, so that current and future generations of leaders can consider them for further study and possible implementation.

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Social Assessment in ESG Sustainability Framework in Consulting Sector

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Abstract

Environmental, Social, and Governance (ESG) sustainability is a framework that helps stakeholders realize how an organization manages risks and opportunities with the presence of sustainability problems. The social dimension refers to an organization's relationships with stakeholders. In this study, five criteria involved in social dimension of ESG are assessed, and their importance weights are obtained. Decision Making Trial and Evaluation Laboratory (DEMATEL) is a suitable tool due to the presence of interrelationships among evaluation criteria. The application is illustrated through a case study, which is conducted in a consulting firm that performs in Turkey.

Keywords: ESG sustainability, intuitionistic fuzzy cognitive map, hesitation

1. INTRODUCTION

Sustainable finance approaches are increasingly used by financial market participants, and hence a number of challenges still undermine and hinder the efficient mobilization of capital to support environmental, social and governance (ESG), and climate-related objectives [1]. ESG is a framework that helps stakeholders understand how an organization is managing risks and opportunities related to environmental, social, and governance criteria (sometimes called ESG factors). ESG is an acronym for Environmental, Social, and Governance. ESG takes the holistic view that sustainability extends beyond just environmental issues. While the term ESG is often used in the context of investing, stakeholders include not just the investment community but also customers, suppliers, and employees, all of whom are increasingly interested in how sustainable an organization's operations are. Environmental factors refer to an organization's environmental impact(s) and risk management practices. These include direct and indirect greenhouse gas emissions, management's stewardship over natural resources, and the firm's overall resiliency against physical climate risks (like climate change, flooding, and fires). The social pillar refers to an organization's relationships with stakeholders. Examples of factors that a firm may be measured against include Human Capital Management (HCM) metrics (like fair wages and employee engagement) but also an organization's impact on the communities in which it operates. Corporate governance refers to how an organization is led and managed. ESG analysts will seek to understand better how leadership's incentives are aligned with stakeholder expectations, how shareholder rights are viewed and honored, and what types of internal controls exist to promote transparency and accountability on the part of leadership [2].

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This work introduces Decision Making Trial and Evaluation Laboratory (DEMATEL) technique to determine the importance degrees of social factors of ESG sustainability. The presence of interrelationships among evaluation criteria leads to utilize DEMATEL methodology as an appropriate tool.

The remaining sections of the paper are organized as follows. Section 2 explains briefly DEMATEL methodology. The following section illustrates the application via a case study conducted in a consulting firm. Final section delineates conclusions and future research directions.

2. DEMATEL TECHNIQUE

The DEMATEL methodology developed by the Science and Human Affairs Program of the Battelle Memorial Institute of Geneva between 1972 and 1976 [3,4]. Based on the graph theory, the DEMATEL method can divide multiple factors into a cause-effect group, and it enables the decision maker to visualize influences between criteria with a network relationship map [5].

The method begins by generating the initial direct influence matrix A . The elements a_{ij} of the matrix A represent the direct influence of each factor i exerts on each factor j , evaluated by a decision maker. The matrix A is normalized by using (1) and it is named as the matrix D [6].

$$D=s.A, \tag{1}$$

where

$$s = \min \left[\frac{1}{\max_{1 \leq i \leq n} \sum_{j=1}^n |a_{ij}|}, \frac{1}{\max_{1 \leq i \leq n} \sum_{i=1}^n |a_{ij}|} \right] \tag{2}$$

The total relation matrix T is defined as $T = D(I - D)^{-1}$ where I is the identity matrix. Define r and c be $n \times 1$ and $1 \times n$ vectors representing the sum of rows and sum of columns of the total relation matrix T , respectively. Suppose r_i be the sum of i^{th} row in matrix T , then r_i shows both direct and indirect effects given by factor i to the other factors. If c_j denotes the sum of j^{th} column in matrix T , then c_j shows both direct and indirect effects by factor j from the other factors [5].

When solving a decision-making problem, the use of DEMATEL method enables also the decision maker to obtain the importance weights of the criteria, in addition to its ability to visualize the interactions between them.

The degree of importance for a factor i is considered as equals to the sum $(r_i + c_j)$ when $j= i$. A network relationship map which explains the structural relations among factors can be obtained by setting up a threshold value which is determined by the decision makers. Additionally, the difference $(r_i - c_j)$ represents the net effect that factor i contributes to the system. A factor i is a net causer if $(r_i - c_j)$ is positive, and when $(r_i - c_j)$ is negative, factor i is a net receiver [5].

3. CASE STUDY

This work presents a DEMATEL approach for evaluating social factors of ESG sustainability. The case study is conducted in a consulting firm performing in Turkey through three experts' opinions. Initially, factors that are determined by interviewing the project managers of the case company and Google search, are delineated in Table 1.

Table 1: Social factors of ESG sustainability

Label	Criterion
C ₁	Employee relations and diversity
C ₂	Working conditions
C ₃	Local communities
C ₄	Health and safety

Label	Criterion
C ₅	Conflict

The experts provide their opinions by reaching a consensus and they used the linguistic scale shown in Table 2.

Table 2: Linguistic Scale

No influence	0
Very low influence	1
Low influence	2
High influence	3
Very high influence	4

The obtained initial direct influence matrix is shown in Table 3.

Table 3. Initial direct influence matrix

	C ₁	C ₂	C ₃	C ₄	C ₅
C ₁	0	0	3	1	4
C ₂	4	0	2	4	0
C ₃	3	0	0	0	3
C ₄	0	0	0	0	0
C ₅	3	0	1	3	0

The weights of factors are calculated as in Table 4.

Table 7: Importance weights

Label	Criterion	Weight
C ₁	Employee relations and diversity	0.278
C ₂	Working conditions	0.149
C ₃	Local communities	0.215
C ₄	Health and safety	0.114
C ₅	Conflict	0.241

4. CONCLUSIONS

To obtain the importance weights of social factors of ESG sustainability framework, evaluation criteria are determined through expert opinions and then algorithm of the work is reported by considering DEMATEL technique. Importance weights of concepts are assigned by applying DEMATEL methodology, employee relations and diversity is the most important factors however health and safety is the least important criterion. Future research will focus on proposing group decision making approaches for this evaluation.

Acknowledgements

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Determination of Interrelationships among Environmental Factors in ESG Sustainability Framework

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Abstract

ESG, which is an acronym for Environmental, Social, and Governance, is a framework that enables stakeholders to observe how a company manages risks and opportunities around sustainability problems. The environmental dimension refers to an organization's awareness about environmental issues. In this study, the factors included in environmental dimension of ESG are evaluated, and their importance weights are determined. Intuitionistic fuzzy cognitive map is a suitable tool due to the presence of interrelationships among evaluation criteria, fuzziness, vagueness, and hesitation in data. The application is illustrated through a case study, which is conducted in a consulting firm that performs in Turkey.

Keywords: ESG sustainability, intuitionistic fuzzy cognitive map, hesitation

1. INTRODUCTION

While sustainable finance approaches are increasingly used by financial market participants, a number of challenges still undermine and hinder the efficient mobilization of capital to support environmental, social and governance (ESG), and climate-related objectives [1]. ESG is a framework that helps stakeholders understand how an organization is managing risks and opportunities related to environmental, social, and governance criteria (sometimes called ESG factors). ESG is an acronym for Environmental, Social, and Governance. ESG takes the holistic view that sustainability extends beyond just environmental issues. While the term ESG is often used in the context of investing, stakeholders include not just the investment community but also customers, suppliers, and employees, all of whom are increasingly interested in how sustainable an organization's operations are.

Environmental factors refer to an organization's environmental impact(s) and risk management practices. These include direct and indirect greenhouse gas emissions, management's stewardship over natural resources, and the firm's overall resiliency against physical climate risks (like climate change, flooding, and fires).

The social pillar refers to an organization's relationships with stakeholders. Examples of factors that a firm may be measured against include Human Capital Management (HCM) metrics (like fair wages and employee engagement) but also an organization's impact on the communities in which it operates.

Corporate governance refers to how an organization is led and managed. ESG analysts will seek to understand better how leadership's incentives are aligned with stakeholder expectations, how shareholder rights are viewed and honored, and what types of internal controls exist to promote transparency and accountability on the part of leadership [2].

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This work introduces an intuitionistic fuzzy cognitive map (IFCM) technique to determine the importance degrees of environmental factors of ESG sustainability. The presence of interrelationships among evaluation criteria, fuzziness, vagueness, and hesitation in data led us to employ IFCM methodology as an appropriate tool.

The remaining sections of the paper are organized as follows. Section 2 explains briefly intuitionistic fuzzy cognitive map methodology. The following section illustrates the application via a case study conducted in a consulting firm. Final section delineates conclusions and future research directions.

2. INTUITIONISTIC FUZZY COGNITIVE MAP TECHNIQUE

Intuitionistic fuzzy cognitive map (IFCM) technique includes intuitionistic fuzzy numbers into cognitive maps in order to determine the power of cause-and-effect relationships [3]. First, concept nodes and power of causal links among them are defined by obtaining experts' opinions. Second, the power of causal links is represented by intuitionistic fuzzy numbers that are associated with intuitionistic fuzzy scale. Hence, membership, non-membership, and hesitation values are identified. Finally, N x N weight matrix is formed by employing the information collected from the experts.

The following iterative formulation of IFCM is run until the system will be stabilized, in other words, all factor weights will converge [4]. In this way, the concepts' values are computed.

$$A_i^{(k+1)} = f \left(A_i^{(k)} + \sum_{j=1}^N A_j^{(k)} w_{ji}^\mu - A_j^{(k)} w_{ji}^\pi \right) \tag{1}$$

where $A_i^{(k)}$ is the value of concept C_i at k th iteration, w_{ji} is the weight of the connection from C_j to C_i , w_{ji}^μ and w_{ji}^π denote the weight matrices that show membership values and hesitation values of causal links, respectively, and f is a threshold function, which is considered as sigmoid function for this work.

3. CASE STUDY

This work presents an IFCM approach for evaluating environmental factors of ESG sustainability. The case study is conducted in a consulting firm performing in Turkey through three experts' opinions. Initially, factors that are determined by interviewing the project managers of the case company and Google search, are delineated in Table 1.

Table 1: Environmental factors of ESG sustainability

Label	Concept
C ₁	Climate change
C ₂	Waste
C ₃	Pollution
C ₄	Renewable energy
C ₅	Biodiversity protection

The experts provide their opinions by reaching a consensus and they used the linguistic scale shown in Table 2.

Table 2: Linguistic Scale

Linguistic term	Intuitionistic fuzzy number
VH	<0.95,0.05>
H	<0.70,0.25>
M	<0.50,0.40>
L	<0.25,0.70>
VL	<0.05,0.95>

The linguistic data, membership values, non-membership values, and hesitation values for causal relationships, are given in Tables 3, 4, 5, and 6, respectively.

Table 3. Linguistic Data for Causal Relationships

	C ₁	C ₂	C ₃	C ₄	C ₅
C ₁	-	-	-	L	H
C ₂	-	-	VH	M	VH
C ₃	-	-	-	M	VH
C ₄	-	-	-	-	-
C ₅	-	H	-	-	-

Table 4. Membership values

	C ₁	C ₂	C ₃	C ₄	C ₅
C ₁	0	0	0	0.25	0.7
C ₂	0	0	0.95	0.5	0.95
C ₃	0	0	0	0.5	0.95
C ₄	0	0	0	0	0
C ₅	0	0.7	0	0	0

Table 5. Non-membership values

	C ₁	C ₂	C ₃	C ₄	C ₅
C ₁	0	0	0	0.7	0.25
C ₂	0	0	0.05	0.4	0.05
C ₃	0	0	0	0.4	0.05
C ₄	0	0	0	0	0
C ₅	0	0.25	0	0	0

Table 6. Hesitation values

	C ₁	C ₂	C ₃	C ₄	C ₅
C ₁	0	0	0	0.05	0.05
C ₂	0	0	0	0	0
C ₃	0	0	0	0.1	0
C ₄	0	0	0	0	0
C ₅	0	0	0	0	0

IFCM technique is employed and importance weights are obtained by running the formulation (1) until it will be stabilized, and the values of concepts will remain same. FCMapper software is used for these operations. The concepts' values are given in Table 7.

Table 7: Importance weights of factors

Label	Concept	Weight
C ₁	Climate change	0.659046
C ₂	Waste	0.807131
C ₃	Pollution	0.831822
C ₄	Renewable energy	0.790089
C ₅	Biodiversity protection	0.891923

4. CONCLUSIONS

To obtain the importance weights of environmental factors of ESG sustainability framework, evaluation criteria are determined through expert opinions and then algorithm of the work is reported by considering IFCM technique. Importance weights of concepts are assigned by applying IFCM methodology, biodiversity protection is the most important factors however climate change is the least effective criterion. Future research will focus on proposing group decision making approaches for this evaluation.

Acknowledgements

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Analysis on Marketing Environment of Medium-Sized Real Estate Enterprises in China

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Abstract

As China's real estate industry bids farewell to the high-speed growth period, in recent years, large real estate companies have expanded rapidly to second-tier and third-tier cities, and the domestic real estate market competition has become increasingly fierce. For medium-sized real estate companies in various regions of China, how to make the company survive in an increasingly competitive market environment is a severe test. This paper analyzes and studies the marketing environment of medium-sized real estate enterprises in China through literature research, statistical analysis and other research methods. This paper uses PEST to analyze the external marketing environment of the company and uses SWOT to analyze the strengths and weaknesses of medium-sized real estate enterprises and the opportunities and threats they will face, in order to provide reference for Chinese medium-sized real estate enterprises to formulate marketing strategies and help realize the company's business objectives.

Keywords: Real Estate, Marketing, PEST, SWOT

1. INTRODUCTION

China's real estate market has undergone tremendous changes since the beginning of the 1980 s. As an important part of China's national's national economy, the real estate industry plays an important role in promoting social prosperity and development and improving the national economic level. It can be regarded as one of the pillar industries to promote national economic development. Under the background of the rapid development of the real estate industry, in recent years, the major real estate enterprises in the country have continuously increased their investment in the real estate industry. In order to stabilize the development of China's real estate market economy, the central government and local people 's governments at all levels have adopted a series of administrative and economic means to regulate the real estate market. Since 2013, China 's economic growth has gradually slowed down, economic restructuring, China 's real estate industry has gradually begun a new transformation. In 2019, the central bank 's adjustment of the interest rate of individual housing loans and the tightening of financing channels for real estate enterprises have put real estate enterprises under financial pressure. The latest data shows, In 2022, the national real estate development investment fell by 10.0 % compared with the previous year. The real estate development boom index decreased from 100.28 to 94.35[2]. The change of environment makes many medium-sized real estate enterprises face unprecedented challenges. This paper uses PEST analysis method and SWOT analysis method to analyze the internal and external environment of the enterprise, which helps the enterprise to gain

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insight into the macroeconomic situation, understand the opportunities and threats faced by the enterprise, the strengths and weaknesses, and provide reference for the enterprise to formulate more scientific and effective marketing strategies.

2. OVERVIEW OF REAL ESTATE MARKETING

2.1. Concept of Real estate marketing

Real estate marketing is the real estate enterprise in accordance with their own management policy profit target as the guide, through the internal and external production environment and resources demand analysis, find out the bright spot, choose sales channels and promotion methods, with excellent creation mode to promote services and goods to the potential market, to achieve the market to promote and guide the development of real estate company economic behavior. Real estate marketing is the branch of marketing, which is the sales process of enterprises obtaining the required items through the packaging of the personal or collective exchange with other developed and constructed products. Real estate marketing is based on marketing strategies to meet different needs, including housing, office buildings, commercial buildings and other follow-up services related to products to meet people's production, life, material or spiritual needs, so as to achieve the profit of selling products. Therefore, the general principles of marketing and its strategies can also be applied in the real estate field.

2.2. Factors of real estate marketing

In recent years, China's central and local governments have been implementing various measures to regulate the real estate market to ensure the stable development of the real estate market. The government's intervention measures have reduced the freedom of the real estate market and have a huge impact on the marketing activities of real estate companies. Moreover, China's land resources belong to collective ownership, and the government has the ultimate control over the development, utilization and management of land resources. Therefore, the government's land policy has a significant impact on real estate enterprises.

1. The impact of national macroeconomic economy and policies. Urbanization is an important indicator of a national or regional economic development, accelerate the process of urbanization will inevitably lead to the increase of urban population, with the acceleration of the urban process and national population policy adjustment. The increase of population will inevitably lead to the increase of housing demand, which increases the investment in the real estate industry and will inevitably increase. On the premise of ensuring the stable operation of the real estate market, the government also stressed that local governments should optimize the structure, rationally formulate and issue corresponding regulation and control policies according to their own urban development. Starting from both supply and demand, in demand, we will optimize the regulation mode and introduce various restrictive adjustments under the conditions conducive to the stable and effective market operation mechanism, so as to make the overall policy mix more reasonable. On the supply side, on the premise of continuing to ensure effective supply, we will focus on increasing short-term supply, adjust the housing and land supply structure, improve financing services for low-income housing, and promote the reform of the medium-and long-term housing system.
2. The impact of government tax policies. Tax policy can adjust the relationship between countries, local governments and enterprises, which is the economic lever of the country. The state can adjust the market investment of enterprises by affecting the tax burden of enterprises, and tax has an obvious role in regulating the operating profit of enterprises. On February 19th, 2016, The Ministry of Finance, the State Administration of Taxation and the Ministry of Housing and Urban-Rural Development jointly issued a document, Adjust the deed tax in real estate transactions, On May 1,2016, the business tax launched the historical stage to fully realize the business tax to value-added tax, The impact on real estate businesses and construction businesses is enormous, The four 4 excess progressive tax rate of land value-added tax for real estate enterprises, On January 28,2011, the pilot property tax began in Shanghai and Chongqing, In 2017, the two sessions on the property tax proposal and a series of tax policies all show that the country uses tax policies to regulate the market, Tax policy is closely related to the survival and development of every enterprise, The impact of tax policy on the development of the real estate market is becoming increasingly apparent.

3. The impact of land planning and urban planning policies. The relationship between supply and demand of real estate market and industrial development depends on the supply of land resources to some extent. The balance of resource supply and demand in the land market plays a leading role in the balance of housing supply and demand in the real estate market. In the short term, the insufficient land supply will give consumers a feeling of insufficient housing supply, and then people will feel that the supply is in short supply, the transaction volume will rise, and the housing prices will rise. In addition, the government's impact on land resources planning and urban development and construction planning has a great impact on land, includes 50 years of industrial land, 40 years of commercial land and 70 years of residential land. The government's regulations on building height, floor area ratio and other indicators and green coverage rate have a great impact on the value of land units.

3. ANALYSIS METHODS

In 1971, Kenneth R. Andrews in his classic book 'Corporate strategy concept', based on the internal conditions and external environment of the enterprise, comprehensively analyzed the opportunities and threats faced by the enterprise and the advantages and Weaknesses of the enterprise, and designed a SWOT analysis model. In SWOT, S represents strength and advantage; W represents Weakness, which means a disadvantage; O represents opportunity, and the last T represents threat. Among them, the advantages and disadvantages are obtained by comparing enterprises with competitors. Opportunities and threats actually refer to the impact of the external environment on enterprises.

In 1999, Johnson • G and Scholes-K designed the PEST analysis model. The PEST analysis model is a management model analyzed according to the current macro environment of the enterprise, which can also be applied in the field of marketing. PEST specifically means that Political, Economy, Social, and technology are, and PEST is also analyzed from these four aspects. This model has been widely used and is of great significance to the development of marketing theory.

4. MEDIUM-SIZED REAL ESTATE ENTERPRISE MARKETING ENVIRONMENT PEST ANALYSIS

4.1. Policy Environment

In 2019, the Ministry of Housing and Urban-Rural Development of the People's Republic of China repeatedly said that it would strengthen the stability and continuity of 'housing without speculation' and warned where house prices are rising too fast. At the meeting of the central bank and the politburo, reiterated the long-term mechanism of not speculation in housing, for the first time can not be real estate as a short-term means to stimulate the economy. Local governments have successively issued two-way regulation policies, and the regulation of many hot cities has been continuously upgraded. The local relaxation policy was stopped in time to ensure the smooth operation of the real estate market, and the double price limit policy was implemented in many places to regulate real estate (land price, house price); at the same time, the local government's regulatory autonomy has increased, and the 'urban policy' has been refined into 'regional policy'. Due to the obvious economic downturn, the purchase restriction policy was relaxed, and cities with rising housing prices were urgently suspended.

In August 2019, the deputy governor of the central bank pointed out that the mortgage interest rate changed from the reference benchmark interest rate to the reference LPR, but the loan interest rate level should remain basically stable. In the same month, the central bank stipulated that from October 8, the first suite commercial mortgage interest rate should not be lower than the same period LPR, and the second suite commercial mortgage interest rate should not be lower than the same period LPR plus 60 basis points. The promulgation of these two regulations makes the real estate market trends more severe. In addition, in recent years, people have implemented real estate control policies to strengthen the continuous supervision of real estate funds. Trust, overseas debt, banking, insurance, special debt and other channels to tighten the front-end financing of real estate enterprises; housing enterprises capital chain under certain pressure, the land market quickly cooled, gradually into a steady state. Financing has tightened in all aspects, and the filing, registration and issuance conditions for overseas bonds have become stricter. Domestic enterprises need to apply for filing, and companies issuing foreign debt are limited to trust companies that borrow for repayment. In order to control the scale of the trust, many trust companies have been interviewed and warned. Conducted special inspections of real estate business in 96 financial institutions in 32 cities. Document No. 64 of the State Council stipulates that trusts have no less control over channels and real estate than banks. The

window guidance received by many banks pointed out that the amount of loans in real estate should be controlled; strengthened control of credit card transactions in real estate, limited collection of insurance funds trust, special bonds can not be used for land reserves and real estate-related regulatory background. In May 2019, the CBRC document No.23 formally established the tightening trend of bank and non-bank real estate financing. In June, a speech by Guo Shuqing, party secretary of the People's Bank of China, set the tone for further tightening financing. Subsequently, multiple channels (banks, special bonds, trusts, insurance, overseas bonds, etc.) began to tighten, and the debt repayment pressure of housing enterprises was more obvious. In July, the land market cooled rapidly. This series of financial policies on the real estate market will restrict the inflow of funds in the real estate market and hinder the rapid development of the real estate market.

The meeting of the Political Bureau of the Central Committee of China proposed to insist that the house is used for living, not for speculation. In order to support rigid housing demand and improving housing demand, local governments have the responsibility to protect people's housing demand. In this context, Hunan Province, adhere to the principle of housing without speculation, to maintain the stability of regulatory policy continuity, and effectively prevent and resolve the real estate risks, the establishment of a sound real estate long-term management mechanism. With the introduction of market stabilization measures by governments at all levels, the relaxation of monetary policy and real estate financial policy, the support for housing credit has increased, and the demand for rigid housing and improved housing has gradually been released. Market confidence has recovered, the province's real estate market is expected to enter a stable recovery channel. It is expected that the real estate market differentiation in Hunan Province will intensify. Changsha strong economic resilience, attractive population, strong market demand, the real estate market is expected to continue to maintain growth. Some third- and fourth-tier cities continued to outflow of population, urban population growth is slow, lack of industrial support, weak housing demand, housing prices downward pressure.

4.2. Economic environment

With the continuous development of China's economy, China's GDP has been greatly improved. Gross national income increased from 6,8,625.6 billion yuan in 2018 to 9,8,852.9 billion yuan in 2021, achieving a large increase. From the perspective of industrial distribution, the development speed of the tertiary industry is particularly rapid, increasing from 3,4,974.5 billion yuan in 2018 to 5,34,23.3 billion yuan in 2021, showing a significant increase. From the perspective of GDP, China's gross domestic product has achieved several times of growth from 2018 to 2021, directly increasing from 68885.8 billion yuan in 2018 to 99086.5 billion yuan in 2021. Overall economic development shows that the domestic economic environment is good, is conducive to the development of all walks of life, the increase in the overall output value of the people to a certain extent, can promote the development of real estate enterprises[4].

At the same time, the increase in per capita disposable income of Chinese residents can promote the development of the overall economy. The per capita disposable income of Chinese residents increased from 21966 yuan in 2018 to 30733 yuan in 2021, and the per capita residential consumption expenditure of residents increased from 3419 yuan in 2018 to 5055 yuan in 2021. In particular, the per capita disposable income and residential consumption expenditure of urban residents are increasing, and the per capita disposable income of urban residents has increased from 31195 yuan in 2018 to 42359 yuan in 2021; in terms of residential consumption expenditure, it increased from 47.26 million in 2018 to 67.8 million in 2021 South. With the increase of urban residents' income, the disposable funds they spend on housing will also increase, which will promote the development of the real estate market to some extent[1].

4.3. Society environment

Regional population number is one of the important factors affecting the regional housing demand. The population number of the region will directly affect the upper limit of the regional housing demand, and the increase of the regional population will increase its housing demand to a certain extent, thus affecting the development of the local real estate market. With the improvement of the country's urbanization level, a large number of demographic dividends can also promote the development of the real estate market to a certain extent. From the data, we can see that China's urbanization rate is constantly improving, from 56 % in 2018 to 61 % in 2021; the urban population increased from 771.16 million in 2018 to 848.43 million in 2021. With a large influx of people into cities, rising housing demand can stimulate the market. In addition, local governments are affected by the purchase restriction

policy, and increase the population and housing buyers through the way of talent introduction. At present, the talent introduction policy has been fully implemented in all cities, many cities that have obtained the benefits of talent introduction will continue to conduct talent introduction, talent introduction has become the competition for high-quality talents, but also to reduce the purchase requirements, increase the city home buyer base to some extent[1].

4.4. Technical environment

Technical environment is an external factor in marketing environment. Since the 1980 s, with the development of science and technology, people's lifestyle and consumer demand have changed. Technological change has a great impact on products and marketing skills. The impact on the development and construction of technology products, from the previous sheltered brick house to the present high-rise buildings, from the previous sales staff home sales, street leaflets, advertising, to the current Internet sales. With the development of science and technology, housing from the barbaric era of human construction of thatched cottage, to the old generation of stable but simple brick house, to the present high-rise building. Enterprises pay attention to the use of more technical means in the development project, firmly grasp the consumer 's psychology of harmonious coexistence between man and nature, including the use of modern new building decoration materials, intelligent security, smart home, network marketing, VR room, improve heating, refrigeration, lighting, ventilation effect of building technology, active use of solar energy, wind energy and other clean energy. Take the current popular smart home as an example. It provides the living environment of the smart home system installed on the residential platform, and integrates the equipment related to home life with integrated wiring, network communication, security, automatic control, audio and video. Whether it is integrated wiring, network communication, automatic control, audio and video are indispensable important technologies in smart home. Security technology is widely used in home monitoring, visual intercom and anti-theft alarm. Automatic control technology is closely related to our lives. Can make the hard day people ready to go home before hot water, turn on the lights, pull on the curtains, to create a comfortable living environment.. VR panoramic view of the general application of housing in the real estate industry, so that customers can visit all the housing model room without leaving home, not only save the customer 's time cost, but also enhance the product image of real estate developers, so that the entire purchase process convenient, fast, real and effective. This VR panoramic viewing mode has long been popular in the world real estate website. Most large and medium-sized real estate websites in North America, Western Europe, Japan and other countries have VR panoramic services. More and more real estate developers and real estate agents choose 360 ° panoramic viewing to provide more virtual reality viewing for buyers and renters. According to foreign data, the visit rate of property with panoramic display is 40 % higher than that of property without panoramic display. Technology is becoming more and more important in the development of the real estate industry.

5. MEDIUM-SIZED REAL ESTATE ENTERPRISE MARKETING ENVIRONMENT SWOT ANALYSIS

5.1. Strengths

1. Be more familiar with the local market. Medium-sized real estate developers are different from large real estate developers whose projects are distributed throughout the country. Most medium-sized real estate developers tend to focus their limited resources on the local market or several specific regional markets, which makes them better understand local culture, consumer demand and other aspects than large real estate enterprises in the field.
2. The market is responsive. Compared with the huge organizational structure of large real estate enterprises, the organizational structure of medium-sized real estate enterprises is simpler, and they can respond quickly to environmental changes.

5.2. Weaknesses

1. There is a gap with large real estate enterprises. There is a gap between medium-sized real estate enterprises and large real estate developers with a long history in terms of assets, resources and talent accumulation.

2. The bargaining power is weak. Due to the scale of operation, medium-sized real estate enterprises have weaker bargaining power in centralized procurement than large real estate enterprises, and have no advantage in construction and installation costs.

5.3. Opportunities

1. Economic development and demographic dividend. With the development of China's economy and the continuous improvement of residents' living standards, people's demand for housing is gradually increasing, which will promote the development of real estate enterprises to a certain extent, and also an opportunity for the development of real estate company. In addition, China's growing population, coupled with local governments actively introducing talent, a large number of people into cities, the urbanization rate is still in a steady upward trend. The increase of urban population will increase the demand for housing in the market, which can support the development of real estate and is also an opportunity for the long-term development of real estate company.
2. Increased consumer income levels. With the increase of income, people's demand for improving housing conditions is more obvious. Over the years, with the rapid economic development of the region where real estate companies are located and the increase in per capita disposable income, people are more eager to improve the quality of life, thus stimulating the local real estate market demand.
3. Reorganization and reshuffle in the industry, and the competition tends to be rational. After some enterprises are eliminated by the market because of their insufficient strength, the competition in the industry will gradually become rational. In the real estate industry that needs strong financial support and high anti-risk ability, it is difficult to succeed in the fierce market competition without strong strength. In the real estate industry, the key to the success of enterprises is the comprehensive strength. With the rapid development of the entire market operating environment, China's real estate industry is gradually turning to a state of more and more fair competition, and will tend to be rational in basic competition such as product quality, project brand, and project capital selection. Some real estate development enterprises with poor strength will be gradually eliminated, and enterprises that rely solely on hype marketing in the absence of land and funds will not be accepted by the market.

5.4. Threats

1. Government regulation. In recent years, in order to macro-control the speculation in the real estate market, the government has successively introduced various regulatory policies to control the rapid rise in house prices, such as increasing the down payment ratio in some cities, restricting the purchase of second suites, and adjusting the housing loans and interest of second suites to a certain extent. From the perspective of people's livelihood, these measures can indeed control housing prices to a certain extent, but from the perspective of real estate companies, it also increases the difficulty of sales.
2. Large real estate enterprises occupy the market. In the past, China's large real estate development enterprises only focused on first-tier cities. In recent years, they have also increased investment and entered the real estate market of second- and third-tier cities, making the market competition increasingly severe. Medium-sized real estate companies are facing many competitive pressures in the development process.
3. Rising land costs. Local government land auction process gradually improved, relative to the agreement price, centralized land auction policy makes the company take land costs continue to increase. In real estate development, land cost usually occupies a large development cost, so the rise of land cost will further reduce the profit of real estate enterprises.
4. Limited customer resources. With the first and second tier cities have introduced purchase restriction policy, there are more and more customers who have purchase demand but are not eligible to buy. The number of eligible customers in the market continues to decrease, resulting in the first and second tier cities real estate market sales pressure increases, the number of market customers continue to decrease. Major real estate

companies in order to compete for limited customer resources, not only to take various means to obtain customers, but also through different levels of price concessions to attract customers, which not only reduces profits, but also increases the company's marketing costs.

5. Slowing overall industry growth. Affected by the policies of the new coronavirus and epidemic prevention and control policies, the economic situation in most parts of the country has declined since 2019, and the overall development of the real estate industry has also been affected. Data from the National Bureau of Statistics show that the real estate industry has slowed in recent years.

6. CONCLUSION

From the various statistical data released by the Chinese government, the central and all levels of government regulation policy and the central bank personal housing interest rate adjustment and so on, China's real estate market has undergone great changes in recent years. Medium-sized real estate enterprises are not only facing market changes but also facing fierce competition in the industry. Under this pressure, they need to actively adjust marketing strategies according to changes in the marketing environment to ensure the good development of enterprises. Through the analysis of the marketing environment faced by medium-sized real estate enterprises, this paper draws the following conclusions:

- Government regulation, limited financing, rising land costs, intensified competition and other factors make medium-sized real estate enterprises face a severe test of survival.
- Although the overall growth of the real estate industry has slowed, China's GDP has been growing steadily. With the rising level of urbanization and the continuous improvement of consumer income, the real estate market still has certain development potential.
- Compared with large real estate enterprises, medium-sized real estate enterprises focusing on the local market are more familiar with the local market, and the simpler organizational structure can respond more quickly to market changes and adapt to the environment.

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Student Management of Online Courses Under the Covid-19, in China's Higher Vocational Colleges

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Abstract

Online classes are managed by a number of factors. Institutional factors, learner factors. Government and teacher-based. This was to determine how students handled online classes during COVID-19. The areas of interest were student group activities, student flexibility, and student cost sharing. A cross-sectional survey method was used to generate quantitative data using a descriptive research design. 23650 university students in their final year were studied. Using Nassiuma 2001 formula, 111 students were sampled. In addition, 6 lecturers were randomly selected thus making a total of 117 respondents. Descriptive statistics were used for data analysis using Statistical Package for Social Sciences (SPSS) version 25. The study found that group work promoted learning during COVID-19 to about 62.1% and about 55% of students had challenges with ICT. In addition about 24.3% of students could not manage purchasing internet and related ICT resources thus they had to partner. In addition, 23.4% of students got support from the Chinese government in managing online classes. About 51.3% of students were not flexible because of a reason or another and percentage of students that had flexibility in this study was 41.4%. The study recommended ICT to be made a core course across all institutions of higher learning to increase student's level of digital literacy. The Chinese government should develop mechanisms in ensuring digital balance both in rural and urban areas not only because of pandemics but to make China a 100% internet zone.

Keywords: Management of online classes, COVID-19, Higher vocational colleges

1. INTRODUCTION

1.1. Background of the Study

The Coronavirus disease 2019 (COVID-19) caused by the novel Coronavirus strain SARS-CoV-2 that started in Wuhan China at the end of the year 2019, led to national and global human threats leading to anxiety, stress, confusion, depression, and closure of all public gatherings (Banerjee, 2020). However, Innovation, invention, creativity, and critical thinking were some of the ideal approaches for problem-solving associated with the virus (Carayannis, 2020). In the year 2019, the outbreak of COVID-19 was a global problem that needed urgent solutions from health practitioners. However, there was a collective responsibility for parents, teachers, governments, and guardians to ensure students attended online classes. Online classes can be traced back to the year 1982 when the Western Behavioral Sciences Institute in La Jolla, California launched a school whose major aim was to train management and strategic planning.

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1.2. Statement of the Problem

Before the outbreak of COVID-19, students and teachers interacted on physical platforms (face-to-face) during the teaching and learning process. However, when there was an outbreak of COVID-19, there was a quick shift to online learning programs which aimed at promoting the teaching and learning process. Scholar articles have highlighted the opportunities and challenges of online classes during COVID-19. However, there is limited literature on how students in China's institutions of higher learning managed the courses during the pandemic. This study intends to add literature to the existing research concerning the management of online classes.

1.3. Purpose of the Study

The purpose of this study is to determine the influence of students' approaches towards online courses during COVID-19 pandemic with a focus on institutions of higher learning in China.

1.4. Objectives of the Study

The following research questions will guide the study:

- 1.To determine the influence of student group work on the management of online teaching and learning during COVID-19.
- 2.To determine the influence of students' cost sharing on the management of online teaching and learning during COVID-19.
- 3.To determine the influence of students' flexibility on the management of online teaching and learning during COVID-19.

1.5. Research Questions

The guiding questions for this study are stated as:

- 1.What is the influence of student group work on the management of online teaching and learning during COVID-19?
- 2.How does students' cost sharing influence the management of online teaching and learning during COVID-19?
- 3.How does students' flexibility influence the management of online teaching and learning during COVID-19?

1.6. Significance of the Study

The findings of this study may be of help to the parents, students, teachers, and educational stakeholders in understanding students' approaches to managing classlessness not only during COVID-19 but also for sustainable learning.

1.7. Scope of the Study

This study will focus on students' management of online courses during COVID-19 in China's Higher Vocational Colleges. Concerning student cost-sharing, students' flexibility, and students studying in groups. In addition, the management of online courses will be looked into to determine students' class attendance, the rate of assignment submission, and the amount of time spent on online classes. In addition, parental level of involvement will be assessed, as it will form part of moderating variable of the study.

1.8. Assumptions of the Study

The following assumptions will guide this study:

- 1.All respondents will be willing to participate and shall be truthful in their responses.
- 2.All the students in their final year of study were able to attend online classes during the COVID-19 pandemic.

2. LITERATURE REVIEW

2.1. Online Learning in Higher Vocational Colleges

Higher education in the modern era is continuously evolving as a direct reaction to today's students' changing requirements, interests, and objectives (McBrien, Cheng, & Jones, 2009). Because colleges recognize the importance of information technology and educational technology to their operations, they are expanding their investments in online platforms. One of the most

difficult challenges that educational institutions must confront in the modern day is the integration of innovative online learning platforms and strengthening and enhancing teaching and learning (McBrien, Cheng, & Jones, 2009).

2.2. Online-Learning Platforms in Higher Vocational Colleges

A learning management system (LMS) is an operating software that helps instructors organize their courses and lessons more efficiently (Coman et al., 2020). These programs were built so schools could monitor and grade students, manage attendance and carry out administrative responsibilities (Dagger et al., 2007). These programs may be categorized as either proprietary or commercial, like Blackboard, or open source, like Moodle (Coman et al., 2020). Blackboard is an example of the former.

2.3. Online Learning is now a Necessity

As the Covid-19 epidemic spread over the globe, a significantly large portion of cities is under quarantine. Because of this, many urban areas have changed their status into ghost towns, which may even affect universities and other educational institutions. The widespread use of the internet for education and instruction is one solution that can help with these difficult times. Several institutions have moved their educational programs online to react to the Corona Virus as a precautionary measure.

2.4. Student Perception and Management in Online-Learning

Online learning has gained popularity because it can be adapted to meet the requirements of individual students in terms of the learning rate, the subject matter addressed, and the preferred learning environment (Arkorful & Abaidoo, 2015). This is one of the reasons that e-learning has become so popular. Therefore, it is conceivable that the capability to alter and adapt courses to the needs of the learners would considerably boost the quality of the e-learning process (Raheem & Khan, 2020). Students are encouraged to connect with and learn from their peers through conversation and the sharing of ideas (Cantoni, Cellario & Porta, 2004).

2.5. Online Learning during the Coronavirus Pandemic

A study conducted on students' perceptions of their experiences in online classes found that they believed teachers could modify their lectures to be appropriate for the online environment (Sun et al., 2020). Instead of merely transferring the information presented in a conventional classroom to the online setting, teachers should provide students with an adequate number of assignments and projects (Sun, Tang & Zuo, 2020).

2.6. Online Learning in China

About 55.8% of students in China are connected to the internet, which is 4.1% more than the average for the rest of the world. The vast majority of people (97.5%) who access the internet do so via their mobile devices' data connections. Chinese higher education institutions can create online learning due to the country's advanced internet infrastructure.

3. RESEARCH METHODOLOGY

3.1. Introduction

This chapter presents the research design, location of the study, sample size, target population, and sampling procedures. Also included are the research instruments, validation of the instruments and reliability estimations, data collection, and data analysis procedures.

3.2. Research Design

The study will use a descriptive survey which will be informed by using a questionnaire. This research design is ideal for this study since the respondents' population is spread heavenly across the study location. This research design normally helps in answering 'what, where, when, and how research questions but not 'why questions' (Mitchell & Jolley, 2010). Therefore, the design will be ideal for answering "how" students manage online courses under the covid-19, in china's higher vocational colleges. The survey is chosen because it's ideal for fact-finding in an educational context as it gives ideal information which is

accurate, and helps the researcher to establish clear information concerning the research objectives and research questions without manipulating the variables of study (Denscombe, 2017).

3.3. Location of the study

The study will be conducted in three cities in China namely, Shanghai, Beijing, and Suzhou. Within the three cities, six vocational colleges will be used for data collection. The institutions selected are ideal since they are among the top performing vocational colleges thus meaning that they have more advanced resources for online teaching and learning.

3.4. Target Population

This is a described subgroup or group of individuals that the intervention intends to collect data from and draw conclusions from (Palinkas et al., 2015). According to Xu (2019), there are about 1418 vocational colleges across the country.

3.5. Sample Size and Sampling Procedure

The study will use 95% confidence (5% sampling error) to obtain a sample size of 111 respondents. The study will obtain the sample size for each department using proportionate random sampling from the population within the study area.

Where: n = the required sample size,

$$n = \frac{NC^2}{C^2 + (N - 1)e^2}$$

N = the population within the study area,

C = Coefficient of Variation,

e = Standard error.

$$n = \frac{23650(0.21)^2}{(0.21)^2 + (23650 - 1)(0.02)^2} = 110.738$$

=111 respondents.

Given the sample size is 111 respondents, proportionate random sampling will be used to ensure there is no bias in sample selection from the six vocational colleges. In addition, one teacher will be randomly selected from the six institutions to respond to some items concerning the observation made on students' management of online courses during COVID-19. Therefore, the study will have a total sample of 117 (111 vocational college students and +6 vocational college teachers/ instructors).

3.6.0. Instrumentation

The study will employ the use of a survey questionnaire, which will be developed by the researcher. The questionnaire will form appendix 'I', which will capture dependent and independent variables. The research will use a self-administered questionnaire since the respondents are elites. The questionnaire will contain both open-ended and closed-ended items based on the objectives of the study. Appendix 'II' will contain a questionnaire for teachers.

3.6.1. Validity

Aspects of the face and content validity of the research instrument will be estimated by experts from the supervisors. Content validity will be determined by checking the questions in the questionnaire to certain the questions are in line with research objectives. The face validity will be checked by supervisors by confirming the spacing, formatting, and numbering of questions in the questionnaire.

3.6.2. Reliability

The reliability of the items will be determined by using Cronbach's alpha index, which helps in measuring the internal consistency of the items. A reliability coefficient of 0.7 will be acceptable to the researcher. A pilot study will be conducted in Xuanhua Technology Vocational College in Xuanhua city, which has similar characteristics to that of the study area where a questionnaire will be administered to a sample of 25 students.

3.7. Data collection procedure

An introductory letter will be obtained from University through the Board of the research committee that will enable the researcher to obtain a research permit. After which, the researcher will visit respectively vocational colleges, to inform them about the intended research in their schools. The colleges will be contacted and appointments will be made for visits. Before the respondents start filling out the questionnaires, they will be explained the purpose of the research to ensure they understand the good intention of the study. Completed questionnaires will be collected on the same day to avoid any influence from students who may not take part in the survey.

3.8. Data Analysis

The collected data will be input into the Statistical Package for Social Science (SPSS) version 25-computer software, which will be used to do data analysis. Some scholarly articles have varied response rates at which the researcher can embark on data collection after data collection. the least acceptable return rate for survey research is 50%. However, in this context, data analysis will only be done after at least 80% or more of the questionnaires will have been returned. In the survey, reports that are intended to be generalized to all colleges or schools of pharmacy should have responses from at least 80% of respondents (Fincham, 2008).

3.9. Statement of Ethics

This study will be focusing on learning institutions in Shanghai, Beijing, and Suzhou. The researcher will obtain an introductory letter from his university. Thereafter, a visit will be made to, the Industrial technology institute in China, Tongji University in Shanghai, Beijing Fengtai Vocational School, Beijing Dance Academy, Peking University of Aviation and Cosmonautics, and China University of Political Science and Law to request authorization for data collection. Upon authorization for data collection, the researcher will explain to the respondents that the aim of the research is purely academic.

4. DATA ANALYSIS AND RESULTS

4.1. Introduction

This chapter presents the results of the study. It contains the results of the analysis of data from the questionnaires that sought responses from the university students and the lecturers/ instructors. The data analyzed is presented in form of percentages, frequencies, means, bar charts, pie charts, and tables. This chapter presents the results of the findings. The aspects analyzed and discussed include; gender, the students learning programs in group activities, cost sharing of internet during COVID-19, Students perception of their flexibility during COVID-19, lecturer's management of online classes and students opinion on their parental involvement during the pandemic. The response rate for this study was 100% as all the respondents took part in answering the survey questionnaire.

4.1.1. Gender of respondents

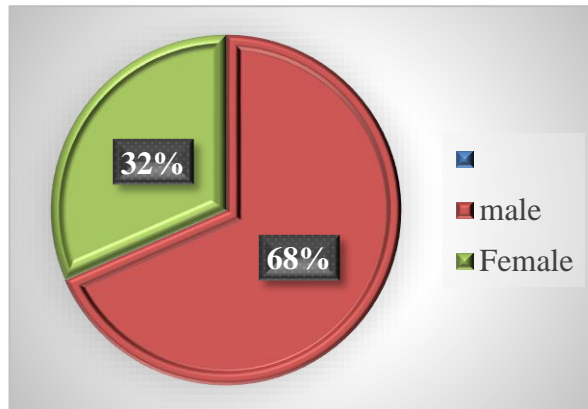


Figure 1: Gender of respondents

The results indicated that male students were the majority with a constitution of 68% while females made a percentage of 32%. The high number of male dominance could be associated with the gender parity in the Chinese institutions of higher learning whereby the males are the majority. In addition, females may have experienced challenges in managing online classes since they are less aggressive to use of technology (Gini, Card, and Pozzoli 2018).

4.2. Influence of Student’s Group-work on Management of online Courses

This section presents findings on the first research objective whose research question was stated as:
 What is the influence of student’s group work on management of online teaching and learning during COVID-19?

4.2.1. Students’ Ability to attend online classes individually from their Homes

During the outbreak of COVID-19, students were expected attend classes through various online platforms as google meets skype and zoom. However, some students were observed to have adequate learning resources that supported online classes while others were disadvantaged (Almendingen et al. 2021). Therefore, this study sought to find out what was the student’s reaction towards online classes in relation attending classes as individuals. The results were as tabulated in Table 1.

Table 1: Students’ Ability to attend online classes individually from their Homes

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	43	38.7	38.7
Disagree	11	9.9	48.6
Neutral	15	13.5	62.2
Agree	23	20.7	82.9
Strongly Agree	19	17.1	100.0
Total	111	100.0	

4.2.2. Network and power Connectivity amongst student ’ s Geographical Location

The study asked the respondents their experience with internet and power connectivity in their homes. The results of the study were as indicated in Table 2. The guiding question asked students if there was power and network challenge in their geographical location that made them work with friends whose homes or locality had better internet connectivity.

Table 2: Network Connectivity amongst student’ s Geographical Location.

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	17	15.3	15.3
Disagree	19	17.1	32.4
Neutral	11	9.9	42.3
Agree	26	23.4	65.8
Strongly Agree	38	34.2	100.0
Total	111	100.0	

A study by Zahra et al.(2020) cited that students in rural areas of Pakistan had power and network supply. Some opted to attend classes in groups. However others happened to operate singly from a geographical location thus they had to go to the peak of mountains and others on top of trees to ensure they attended classes. Figure 2 is an example illustrating how various students tried to manage their learning activities during the COVID-19.



Figure 2: Students with network and power supply challenge

Source: (Zahra et al.,2020)struggled with learning process as they kept shifting learning localities to manage online classes. A study by Belay (2020) indicated that some students were enjoying online classes as they had access to telecommunication technology especially in the urban set up while those in remote and rural areas

4.2.3. *Quality of Teaching and Learning Materials used by Instructors*

The respondents were asked to rate the quality of teaching and learning materials based on their experience as they were attending online classes. In this context, the high quality was aligned towards good network connectivity from the teacher’s end, illustrations very clear, equations and drawings well written. The responses captured were as shown in Table 3.

Table 3: Quality of Teaching and Learning Materials used by Instructors

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	38	34.2	34.2
Disagree	19	17.1	51.4
Neutral	13	11.7	63.1
Agree	20	18.0	81.1
Strongly Agree	21	18.9	100.0
Total	111	100.0	

4.2.4. Importance respondents studying in groups as a way of Increasing class Attendance

From the preceding literature, majority of the students opted to study in small groups for either network or connectivity of internet issues. This study sought to determine the significance of students learning activities in groups as they aimed at efficient management of online courses. The study findings were recorded as shown in Table 4. A study by Wildman et al. (2021) cited that students happened to miss online classes as they were used to attending physical classes. Physical classes it was hard for one to miss, as it was easy to follow friends to attend courses.

Table 2: Importance respondents studying in groups as a way of Increasing class Attendance

	Frequency	Valid Percent	Cumulative Percent
Not important	18	16.2	16.2
less important	14	12.6	28.8
so-so	10	9.0	37.8
Important	21	18.9	56.8
very important	48	43.2	100.0
Total	111	100.0	

4.3. Cost sharing of Internet as a strategy to manage online Courses

This section presents results on the second objective that aimed at determining the effectiveness of student’ s cost sharing on internet and other ICT resources as a way of managing online classes. The objective was guided by the research question: ‘How does student’ s’ cost sharing influence management of online teaching and learning during COVID-19?’

4.3.1. Student’ s Access to Internet and ICT tools during COVID-19

Attendance of online classes is always grounded on stable internet connectivity and associated ICT resources. Therefore, this study sought to determine the student’ s responses in relation to fully access to internet connectivity during the pandemic. The findings of the study were tabulated as shown in Table 5.

Table 5: Student’ s Access to Internet and ICT tools during COVID-19

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	51	45.9	45.9
Disagree	11	9.9	55.8
Neutral	28	25.2	81.1

Agree	12	10.8	91.9
Strongly Agree	9	8.1	100.0
Total	111	100.0	

4.3.2. Student’s ability to meet Internet costs during COVID-19

Given that that from the preceding literature students had challenges to access to internet connectivity at individual level, this study sought to determine how efficient cost sharing aspect influenced student’s management of online courses. The findings of the study were as indicated in Table 6

Table 6: Student’s ability to meet Internet costs during COVID-19

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	11	9.9	9.9
Disagree	23	20.7	30.6
Neutral	8	7.2	37.8
Agree	42	37.8	75.7
Strongly Agree	27	24.3	100.0
Total	111	100.0	

4.3.3. Availability of Established and Functional Community Resource Center and provision of free laptops

The respondents were asked their opinions on the government and non-governmental support towards students’ online learning programs. The captured responses were responses were recorded in Table7 as shown.

Table 7: Availability of Established and Functional Community Resource Center and provision of free laptops

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	49	44.1	44.1	44.1
Disagree	20	18.0	18.0	62.2
Neutral	16	14.4	14.4	76.6
Agree	17	15.3	15.3	91.9
Strongly Agree	9	8.1	8.1	100.0
Total	111	100.0	100.0	

4.4. Student’s Flexibility as Strategy of managing online Classes

This study captures the findings that sought to address the third objective of the study. The objective was guided by the research that aimed to answer how student’s flexibility influenced management of online teaching and learning during COVID-19

4.4.1. Students ability to attend online Classes and perform other Home activities

The study sought to find out how student’s flexibility influenced their in relation to attending online classes. The findings of the study were recorded in Table 8

Table 3: Students ability to attend online Classes and perform other Home activities

	Frequency	Valid Percent	Cumulative Percent
Strongly agree	67	60.4	60.4
Agree	17	15.3	75.7
Neutral	13	11.7	87.4
Disagree	10	9.0	96.4
Strongly disagree	4	3.6	100.0
Total	111	100.0	

4.4.2. Student ' s Perception ability to attend online classes at any time and any locality

The study sought to determine the level of student ' s flexibility in attending online classes. The students were asked if they were able to attend classes without any limit of time or locality. The results of the study were recorded in table 9.

Table 4: Student ' s Perception ability to attend online classes at any time and any locality

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	30	27.0	27.0
Disagree	24	21.6	48.6
Neutral	17	15.3	64.0
Agree	29	26.1	90.1
Strongly Agree	11	9.9	100.0
Total	111	100.0	

4.4.3. The level of Focus in attending online classes during COVID-19

There was need to determine how students perceived the level of focus in attending online classes as this will enable the researcher in determine the level of student ' s flexibility in attending online classes the results were as indicatedinnTable10. The research question for this section asked students if online classes attendance increased their focus.

Table 10: The level of Focus in attending online classes during COVID-19

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	38	34.2	34.2
Disagree	19	17.1	51.4
Neutral	8	7.2	58.6
Agree	27	24.3	82.9
Strongly Agree	19	17.1	100.0
Total	111	100.0	

4.5. Parental involvement on supporting online courses

This section was part of the moderator variable and it aimed to determine its influence on the independent and dependent variable of the study. It focused on parent’s support level and the degree of parental encouragement for students’ management of classes

4.5.1. Influence of Parental Involvement on student’s online classes’ attendance

There was need to find out if parents had a role to play in the student’s management of online classes particularly focusing on the education level. The results obtained were as indicated in Table 11

Table 11: Influence of Parental involvement on student’s management of online classes

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	18	16.2	16.2
Disagree	15	13.5	29.7
Neutral	17	15.3	45.0
Agree	39	35.1	80.2
Strongly Agree	22	19.8	100.0
Total	111	100.0	

4.6. Lecturer/ Instructors experience in managing student’s online classes

The dependent variable of the study was management of online courses during COVID-19. For the study to certain the student’s responses, there was need to get the perception of the lecturers on the student’s class attendance and the strategies deployed by lecturers.

4.6.1. Lecturer’s strategies towards ensuring Maximum class attendance

The lecturers had a role to play in ensuring efficient management of online courses. Therefore, the study asked the lecturers how they managed there was maximum student’s class attendance. The responses were tabulated as indicated by table 12.

Table 12: Lecturer’s strategies towards ensuring Maximum class attendance

	Frequency	Valid Percent	Cumulative Percent
Taking students attendance records	1	16.7	16.7
Giving assignment in every lecture	1	16.7	33.3
Deduction of marks	1	16.7	50.0
Taking attendance records and give impromptu assessment and help solve connection issues	3	50.0	100.0
Total	6	100.0	

4.6.2. Lecturer’s perception on student’s online class attendance

The lecturers were asked their observation on student’s rate of class attendance in relation to the schedule without missing. The findings of the study were recorded as shown in Table 13.

Table 13: Lecturer’s perception on student’s online class attendance

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	1	16.7	16.7
Disagree	3	50.0	66.7
Agree	2	33.3	100.0
Total	6	100.0	

4.6.3. Lecturers’ View on students’ ICT difficulties while attending online classes

The lecturers were asked what was their observation on student’s ease in utilizing ICT resources as learning process was ongoing. The lecturers were asked if they observed their students struggle with utilization of ICT resources. The findings from the study were recorded in Table 14.

Table 14: Lecturers’ View on students’ ICT difficulties while attending online classes

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	1	16.7	16.7
Agree	2	33.3	50.0
Strongly Agree	3	50.0	100.0
Total	6	100.0	

4.6.4. Student’s active level during online classes

Teaching and learning process is supposed to be interactive by making it a two-way communication between the teacher and students. Therefore, the study sought to determine how active the students were in attending online classes. The lecturers were asked if students were more active during online classes than physical classes and the results were recorded in Table 15.

Table 15: Student’s active level during online classes

	Frequency	Valid Percent	Cumulative Percent
Strongly disagree	2	33.3	33.3
Disagree	2	33.3	66.7
Agree	2	33.3	100.0
Total	6	100.0	

4.6.5. The percentage of students who did exams after attending online classes

The ultimate goal of physical online or blended learning is to impart knowledge to students. However, effective teaching and learning process is measured by measurement and evaluation. This study sought to determine the estimated percent of students who managed to do end semester exams after attending online classes. The lecturers were given estimated percentages and their responses where as appears in Table 16

Table 16: The percentage of students who did exams after attending online classes

	Frequency	Valid Percent	Cumulative Percent
(20-39)%	1	16.7	16.7
(40-59)%	2	33.3	50.0
(60-79)%	3	50.0	100.0
Total	6	100.0	

5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1. Introduction

This chapter provides a summary, conclusions, and recommendations of the study, and suggestions for future research

5.2. Summary of Study Findings

Online classes were aimed at sustaining the teaching and learning process especially during the COVID 19 pandemic. The challenges and prospects of online classes has been studied. However, this study aimed at documenting how students managed online classes during the COVID-19. The management strategies were looked from the student’s point of view and the teacher’s perspective on how students managed classes. The study focused on; influence of students group activities in managing online classes, students’ cost sharing and student’s flexibility level in managing class attendance. Other aspects discussed was influence of parental involvement on students’ class management.

1. Influence of Student’s Group-work on Management of online Courses
2. Cost sharing of Internet as a strategy to manage online Courses
3. Student’s Flexibility as Strategy of managing online Classes
4. Parental involvement on supporting online courses

About 29.7% of respondents cited, that their parents had no influence in their class attendance. This implies that this respondent’s parents have low formal education. For this group of students, it was out of personal responsibility to attend the classes. However, 54.9% or respondents cited that their parents had much support towards their class attendance. This implies that either the 54.9% of students were in urban set up or their parents had formal education beyond secondary school level. 15.3% of respondents recorded mixed reactions.

5. Lecturer/ Instructors experience in managing student’s online classes

5.3. Conclusions

The main conclusions of this study are as follows:

1. Group work promoted learning during COVID-19 to about 62.1% and about 55% of students had challenges with access to internet, power supply and access to ICT resources.
2. About 24.3% of students could not manage purchasing internet and related ICT resources thus they had to partner. In addition, 23.4% of students got support from the Chinese government in managing online classes.
3. About 51.3% of students were not flexible because of a reason or another and percentage of students that had flexibility in this study was 41.4%.

5.4. Recommendations

Based on the results attained from this study, the following recommendations are made:

1. There is need make ICT as one of the core course across all institutions of higher learning to increase student’s level of digital literacy.
2. The Chinese government should develop mechanisms in ensuring digital balance both in rural and urban areas not only because of pandemics but to make China a 100% internet zone.

3. Students should be free, open and willing to meet and solve challenges. Therefore, they should be able to focus and be flexible based on situations at hand.

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Influence of Higher Education Blended Learning on Acquisition of Psychomotor Skills, a Case of Chinese Adult Students

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Abstract

The study aims to investigate the impact of blended learning on Psychomotor skills of adult higher education students. Taking Teaching mode, Efficiency and Technology Utilization (Use of ICT) as independent variables and Psychomotor skills as dependent variables. Quantitative and descriptive statistical methods were used for the analysis. The results show that experiential learning and flipped classroom promote the acquisition of psychomotor skills; Secondly, the online aspect of blended learning is inefficient; Most learners say they prefer to learn face to face.

Keywords: Blended Learning, Psychomotor Skills, Adult Student, Higher Education

1. INTRODUCTION

1.1. Background of the Study

Nowadays, China's higher education has been booming. The report to the 19th National Congress of China clearly states: "We will do a good job in continuing education, and enhancing the life quality of our people." According to the latest statistics from China's Ministry of Education, by 2020, according to relevant statistical result, the higher education students in China had reached 41.83 million, and 7.773 million were enrolled in adult colleges and junior colleges, accounting for 18.6 percent of students in higher education of all kinds. Adult higher education is of great significance for promoting China's education, social development, and building a learning society. Building a learning society in which "people can study, everywhere and at all times" and training abundant talents is a challenging social task as well as an important goal and strategic plan for China to finish building a prosperous society. Adult education is an important way to realize lifelong learning for all people, especially adult higher education, which will play a pivotal role in the construction of a learning society.

Adult education to a large extent meets the requirements of China's social development and individual demand for higher degree education. Before the 1950s, on-the-job adult education focused on cadre education was carried out. In 1951, Renmin University of China successfully created a new teaching mode -- adult higher correspondence education. Since then, the state began to vigorously promote the education of in-service personnel through correspondence education or holding night colleges and other methods, and constantly standardize and adjust the

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school management mode. In 1980 the State Council issued the "Ministry of Education on developing the opinions of the correspondence education of institutions of higher learning and evening university", the formal correspondence education and evening university into the cause of higher education plan, put forward the development of higher education should adopt flexible forms of running a school, institutions of higher learning, in addition, to do a good job in a full-time university, correspondence education should also be positive and evening university, To meet the learning needs of on-the-job staff and educated young people. In 2002, the 16th CPC National Congress put forward the idea of "building a learning-oriented society", advocating that all people learn and even pursue lifelong education. Life-long education idea began to get attention, and the adult higher education system as an indispensable part of the lifelong education system, is constantly for self-development and adjustment, pay more attention to its connotation construction, added new vigor for our country's higher education reform (Xinyu Wei & Liping Song, 2022).

With the ever-changing knowledge and the rapid development of the economy, the Times is calling for learners who keep pace. The times after entering the new era and driven by the social trend, China's adult higher education shows a bright development prospect and good development trend. However, it also faces unprecedented challenges. Premier Keqiang Li pointed out that the Internet has laid a good foundation for innovation in various industries. Promoting the combination of the Internet and modern education is an effective way for the innovative development of adult higher education under the new normal.

1.2. Significance of the study

The findings of this study may help identify the benefits and drawbacks of blended learning among many adult learners. For instance, the findings of this study may facilitate teachers in informing them of areas in the teaching modes that require modification to improve the teaching and learning process. In addition, the use of information and communication technology may help in determining how it shapes knowledge transmission during the teaching and learning process. The effective implementation of the teaching process can help determine whether ICT resources are effectively seen during the teaching and learning activities.

1.3. Problem statement

The study will be guided by the following research inquiries:

- How does the teaching style affect adult students at Wenzhou University's acquisition of psychomotor skills?
- How does the usage of information and communication technology (ICT) affect adult students at Wenzhou University's development of psychomotor skills?
- How effective is blended learning for teaching Wenzhou University's adult learners?

1.4. Research Objectives

This study will be guided by the following objectives:

- To ascertain the effect of instructing mode on the acquiring of psychomotor skills among adult students at Wenzhou University.
- To ascertain the impact of information and communication technology (ICT) on the acquisition of psychomotor skills among adult students at Wenzhou University.
- Determine the impact of blended learning on adult students at Wenzhou University.

1.5. Scope of the Research Study

This research will concentrate on blended learning for adult learners with regard to acquisition of psychomotor skills. The research will look at the utilization of ICT in the classroom, the effectiveness of the teaching-learning activities, and the modes of instruction. The study will employ descriptive statistics informed by the survey research

design; data will be analyzed using SPSS version 25, and data will be provided in charts, frequency range, percentages, and standard deviation.

2. LITERATURE REVIEW

2.1. Status quo of domestic research

2.1.1 Research on the development status of adult higher education

After more than half a century of development, China's adult higher education has made important contributions to society, made up for the social and individual needs for higher education in a certain historical period, and also played the educational function of educational background compensation. Luyao Cui (2022) said the economy and the education reform into the new normal today, adult higher education has yet to realize the ideal mode of development, backward students shrinking year by year, the school-running idea, training quality decline, marginalized status, such as problems, follow the development of the existing mode can lead to the more and more not adapt to the social environment and individual requirements. Qiufeng Zhang(2020) also stated that the current development of this kind of education is difficult, for the reason of the shrinking student pool, insufficient capital investment, weak education quality assurance system, poorly targeted teaching, and low social recognition.

Emphasis on income generation, but neglect on management; Heavy scale, light cultivation; Paying attention to economic benefits while ignoring the social benefits of talent training has become the embarrassing reality of the concentrated reflection of universities' contempt for adult higher education. Fengliang Zuo(2020) pointed out that China's AHE is mainly run by ordinary colleges and universities, which adopt the management and study mode of ordinary colleges. However, the service objects of adult higher education are different from those of ordinary higher education. They are mainly employed social personnel with certain social experiences, less free time, great differences in learning basis, unclear learning motivation, and obvious utilitarian characteristics. Both the teaching staff and the teaching management mode of ordinary colleges are not following the feature and needs of adult higher education.

2.1.2 Research on the current situation and countermeasures of adult higher education students learning

In the face of economic and social transformation and upgrading and information technology innovation and reform, the total amount and updated speed of knowledge have exploded, and the demand for the comprehensive quality and professional skills of the public has become increasingly high. As an important channel of knowledge supply, adult higher education facilitates learners' knowledge-seeking and skill improvement. According to the research of Hong Zhang and Di Jin et al.(2021), the biggest learning demand of adult education students is to improve their academic qualifications, and the biggest learning difficulties are high work pressure, lack of time and energy for learning, and the contradiction between learning and engineering. It is very needed for students to improve the quality and effect of learning by strengthening case teaching and course practice, improving the quality and teaching level of courses, and using the multimedia tool to expand learning channels, to finally realize the aim of enhancing personal and professional knowledge and comprehensive literacy.

Zhongling Ma(2021) found that adult correspondence education students are becoming younger, and more and more young people are pursuing the improvement of their academic qualifications and knowledge. Students can actively participate in various online learning tasks provided by the school, but they pay more attention to the final assessment of courses and ignore the process of learning and assessment, and some students have poor learning consciousness. On the whole, students regard online learning as a results-oriented learning style. Jingjing Du(2018) mentioned that traditional face-to-face teaching in adult education generally suffers from problems such as low student attendance rates, unreasonable classroom teaching design, and poor teaching quality. Face-to-face teaching mainly focuses on textbook knowledge or pre-exam guidance, which cannot meet learners' learning needs for practical knowledge and skills. At the same time, adult students are also faced with multiple pressures from work, life, and study, so it is difficult for them to participate in every intensive teaching as required, which causes a certain degree of trouble in work and study. However, mobile teaching technology is not only conducive to solving the problem of difficult centralized teaching for adult students, but also allows adult learners to use fragmented time, and even can repeatedly learn the knowledge points that are not proficiently mastered, it is of great significance to improve the learning effect.

2.1.3 Research on adult higher education teaching mode

With the popularization of the concept of "Internet +" education and information technology, the way for people to acquire knowledge is also changing quietly. Jingjing Du(2018) points out that the traditional teaching mode of continuing education in ordinary colleges is hard to adopt the requirement of modern learners. The reason for the influence of the blended teaching concept, blended teaching based on MOOCs has become the mainstream trend, and it will have good feasibility and development space when applied to adult education.

At present, it is urgent to learn from the emerging MOOCs teaching concept and draw advantages. Xifen Zhao and Qiulin Li et al. (2019)believe that online learning generally has the phenomenon of students' lack of learning motivation and low classroom participation, which makes it difficult for students to persist in learning and give up easily. However, both course quality and learning interest are positively correlated with students learning outcomes. Qiufeng Zhang(2020)mentioned that adult higher education should establish a service-oriented educational concept, based on the demand for adult students, and reconstruct the teaching content system, reforming the content of too theoretical, decreasing the difficulty of the theory to increase the content of the practical application, to establish the connection between the theoretical study and practical application, make the adult students apply. At the same time, the contradiction between work and study is the biggest obstacle affecting the learning quality of students.

It is very important to change the teaching mode based on face-to-face teaching, provide multi-terminal online learning platform support, solve the contradiction between working and learning and improve the learning quality through the combination of online and offline blended teaching. Lingyong Cheng(2019), converged network distance teaching and the traditional face-to-face teaching mode, can improve students' study effect, can even integrate education teaching resources, cooperate with other colleges and universities construction system, provides a wealth of online learning database, prompting students to combine their interests and hobbies to choose its own, with personalized training.

2.2. Status quo of foreign research

2.2.1 Research on the basic situation of lifelong education and continuing education in various countries

Britain is the cradle of continuing education in the world. Adult education is strongly supported by the government, highly valued, and has rich security resources. Adult education is both guaranteed and marketized. The United States is the most developed country in education, with decentralized management of adult education, a perfect education system, and the establishment of a lifelong adult education system.(Fengliang Zuo, 2020).

Germany and Finland are the most developed countries in Europe for lifelong education, with an early start, rich experience, and a complete education system. Germany and Finland attach great importance to the leading role of policies and regulations in lifelong education. They have issued several policies and decrees, and timely modify and improve policies and regulations according to the needs of The Times in different stages of development. People are encouraged to participate in lifelong education, which focuses on adult education, and equality in education is emphasized, which effectively promotes the implementation of lifelong education. As the pillar of the lifelong education system in Germany, Renmin University of Germany keeps pace with The Times and flexibly runs its school. It adopts the organic integration of online and offline education modes to provide educational services for students of all ages. Meanwhile, lifelong education in Germany and Finland has sufficient funding, diversified funding sources, a strong educational atmosphere, and high public participation (Yang Ren, 2022).

Correspondence education in Japan is divided into school correspondence education and social correspondence education. The form of school correspondence education is similar to that of China, while social correspondence education is mainly organized by some non-profit organizations or enterprises. Japan has issued several laws and regulations related to continuing education, making it clear that the purpose of lifelong learning is to give full play to the personality and ability of each citizen. With the improvement of science, the mode of continuing education in Japan has changed from traditional education to hybrid continuing education. Communication education has also been introduced into the mode of continuing education in various forms, such as self-study by mailing textbooks, face-to-face teaching, distance teaching by television and broadcasting, and media teaching. Communication education is not subject to the constraints of learning time and place, and it is more flexible, convenient, and cutting-edge. It is more suitable for on-the-job workers who need to balance work, life, and study (Linlin Ma, 2022).

2.2.2 Research on learning motivation of adult higher education students

Faure (1972) pointed out that the three concepts of "lifelong learning", "lifelong education" and "learning society" were first proposed in the report "Learning to Be Human" by UNESCO in 1972. Zhiwei Chen and Ying Liu mentioned that with the improvement of the lifelong learning process and the gradual emergence of effects, some unexpected problems have emerged, such as the learning motivation or purpose of utilitarianism and passivism, which will endanger the healthy development of lifelong education. On developing the opinions of the correspondence education of institutions of higher learning and evening university", the formal correspondence education and evening university into the cause of higher education plan, put forward the development of higher education should adopt flexible forms of running a school, institutions of higher learning in addition to do a good job. Zhiwei Chen, Ying Liu found in his research on learning motivation for continuing education in China and the United States that Chinese families have a relatively strong influence on their children's education, and personal interests and hobbies have the most influence on adult learners in the United States. Different environments and conditions lead to great differences in individual learning motivation, which in turn will directly affect individual learning effects. Oana Topală(2014) mentioned that this kind of learning lies in the different social experiences and the different learning styles pursued, which have an impact on learning attitudes, learning objectives, and learning effects.

In the process of learning, learning satisfaction is closely related to learning motivation. Considering the differences in learning needs among students, to achieve high learning satisfaction. Teachers should focus on educational efforts that meet specific needs as a way to stimulate students' interest in learning. As they age, adult learners are more inclined to engage in independent and autonomous learning without assistance, with higher learning confidence, enthusiasm, and satisfaction. Raija Hamalainen et al. (2019) The development of modern society puts forward new requirements on adults' ability to solve problems, and learning new knowledge and skills becomes extremely important. At the same time, we should also pay attention to the fact that in the process of higher education, the first consideration should be to improve students' social adaptability and teach them relevant skills to better cope with the challenges in work and life. and participation in adult higher education is becoming an important way of self-development.

2.2.3 Research on the medium of learning in adult higher education

According to Justin C.Ortagus, the development and wide application of digital technology have also provided a good learning platform for learners, and also changed the traditional learning mode. In this development process, many online courses began to appear, and different types of media and tools were efficiently integrated, laying a good foundation for improving learning efficiency. Common online courses, such as learning management systems, video lectures, and discussion boards, provide convenience for students of different degrees and reduce learning costs. To solve the conflict between work and study that students may face. Thomas Howard Morris and Matthias Rohs (2021) pointed out that many adult learners do not have the ability to self-directed learning, and current digitalization has brought about great changes in education. Soe (2021) indicated that online video learning has become popular in higher education. However, the different influences of digitalization on teaching and learning must be taken into account.

2.3 Theoretical Framework

The theory of the Community of Inquiry Theoretical Foundation in Blended Learning (CoL) and Complex Adaptive Blended Learning System developed by Garrison, Anderson, and Archer (2000) serves as the foundation for this study. According to the theory, the independent investigation approach to learning is based on John Dewey's work and the positive and productive elements of experiential learning. According to the framework, the experience depends on the presence of a cognitive perspective, a teaching aspect, and a social element (Swanwick et al., 2019). Presence was identified as the state of being aware, receptivity, and contentment with social cognitive, emotional and physical working at personal and group levels in a given learning environment (Fatani, 2020). According to Cleveland-Innes (2018), in blended learning, the student sits in the middle of study with other factors surrounding him or her. The key factors in blended learning include the learner, teacher, content methodology, learning support, and the institution as shown in figure 1. In blended learning, technology is considered significant and a moderator factor that links the teacher and the student. Blended learning has seven key facets as discussed below:

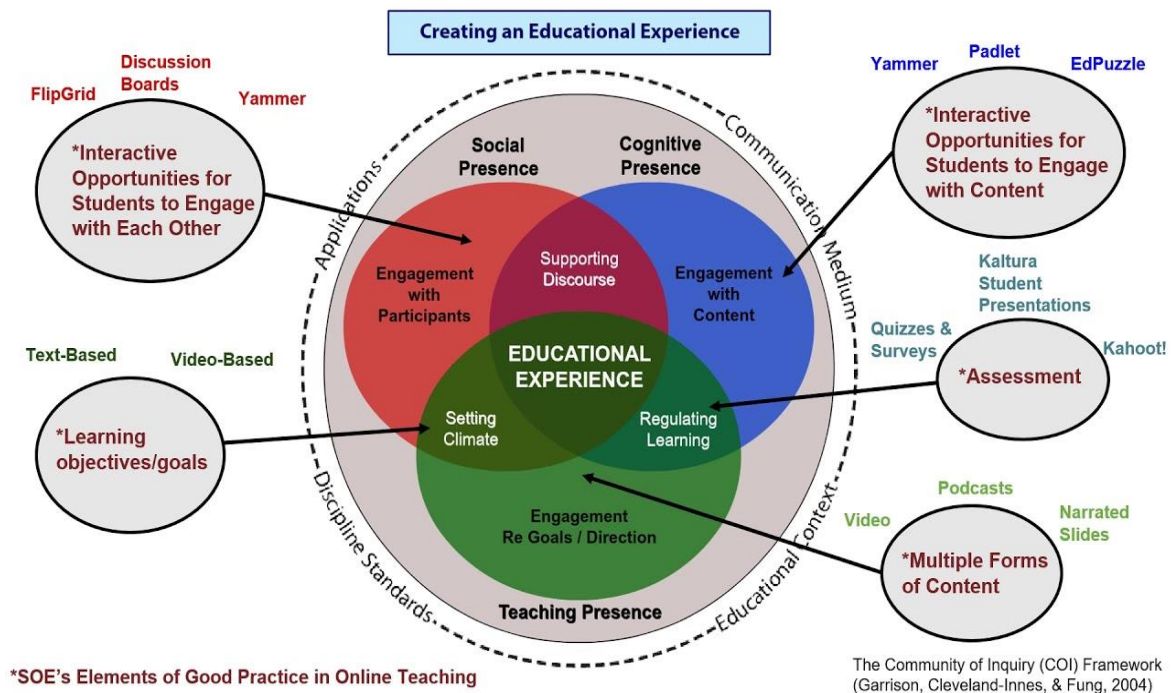


Fig. 1. Community inquiry model of Blended learning

Six Blended Learning Structures in Education

- Blended face-to-face class: Also known as the "face-to-face driver model," this class is typically based on classroom interaction, but much of the classwork is replaced by online activities. This necessitates that learners sit in a classroom to learn, but online activities supplement in-person activities such as reading, evaluations, and answering questions. Even though class time is used for improved learning activities like group projects, this framework enables students as well as universities to share high-value instructional time.
- Blended online class: this model is sometimes known as the online driver model since it is the opposite of face-to-face classes. In this context, a great percentage of learning is conducted online with the flipped classroom.
- The flipped classroom: the flipped classrooms allow students to attend classes, do listening to lecturers, and complete their assignment activities while at their respective homes. This model can also allow students to watch short lecture clips at home through online platforms and complete assignments in groups or projects while at school. This model of learning is a sub-model of the face-to-face model of learning.
- The rotation model: In this model, classes or courses for students rotate between varied learning modalities, each of which is online learning. Station rotation, lab rotation, and ordinary person rotation are all sub-models. As students rotate through the learning environment, the teacher can observe the learning process. This model promotes cooperative learning and teamwork.
- The hybrid MOOC: The blended MOOC is a type of flipped classroom that includes in-person class meetings in addition to a massive online course.

- Courses in multiple modes: A flexible-mode course is a model which allows all instruction to take place in a variety of modes — online and in person — and students to choose how they want to pursue their causes. San Francisco State University's hybrid flexible (HyFlex) model is one example.

2.4 Conceptual Framework

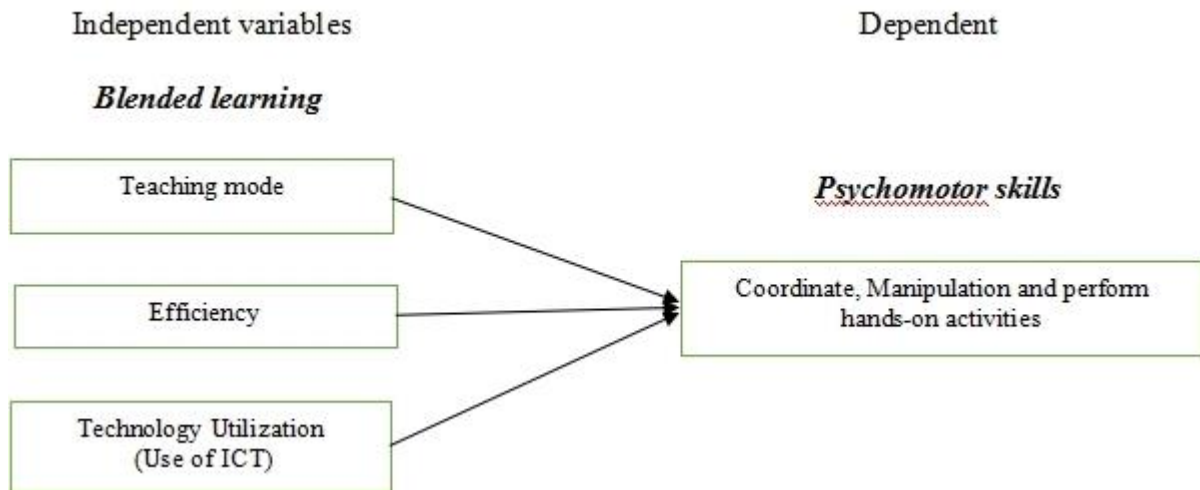


Fig. 2.The variables of the study

3. RESEARCH METHODOLOGY

3.1. Research Methodology

The study will employ a descriptive design, allowing researchers to collect and analyze feedback from respondents on blended learning. The researcher will use the questionnaire survey to collect information on the impact of university education multicultural education on the acquirement of motor abilities among Chinese individual learners.

3.2. Target population and sample

The study targets all adult learners at the University of Wenzhou in Wenzhou city, Zhejiang province, China. About the Statista report (2019), there are 24960 students in the university. The number of adult learners who will participate in the study will be chosen using a proportionate stratified sampling technique from 20 departments.

A sample size of 110 adult students will be obtained with 95% confidence (5% sampling error). Where:

n = the required sample size

$$n = \frac{NC^2}{C^2 + (N-1)e^2}$$

N = the pulation within the study area

C = Coefficient of Variation

e = Standard error

$$n = \frac{24960(0.21)^2}{(0.21)^2 + (24960-1)(0.02)^2}$$

$$= 109.824 = 110 \text{ respondents}$$

3.3. Instrumentation

This study will use a structured questionnaire to collect data from the sampled respondents of adult learners. A structured questionnaire will enable the respondents to be as objective as possible, unlike an open-ended

questionnaire where there is much subjectivity, which leads to a loss of focus during data collection (Kilani & Kobziev, 2016). The questionnaire will be developed based on the study objectives and will be used to collect information on the aspects of evaluating blended learning.

3.4. Data Collection Procedure

The Board of Postgraduate Studies will provide a letter of clearance, which is then used to apply for permission to conduct the study or license. The researcher will use the research permit and an introductory written statement to gain entry into Wenzhou University. Reservations for data gathering will be made before data collection.

3.5. Data Analysis

The information gathered will be coded and entered into Statistical Packages for Social Sciences (SPSS Version 25). Descriptive statistics will be used for data analysis where data will be organized in pie charts, frequencies, percentages, mean scores, and standard deviation.

4. DATA ANALYSIS AND RESULTS

4.1. Mode of Teaching

4.1.1 Convenience of the flipped classroom

The study sought to determine the experience among adult learners in the flipped classroom. The results of the respondents were as indicated in Figure 3.

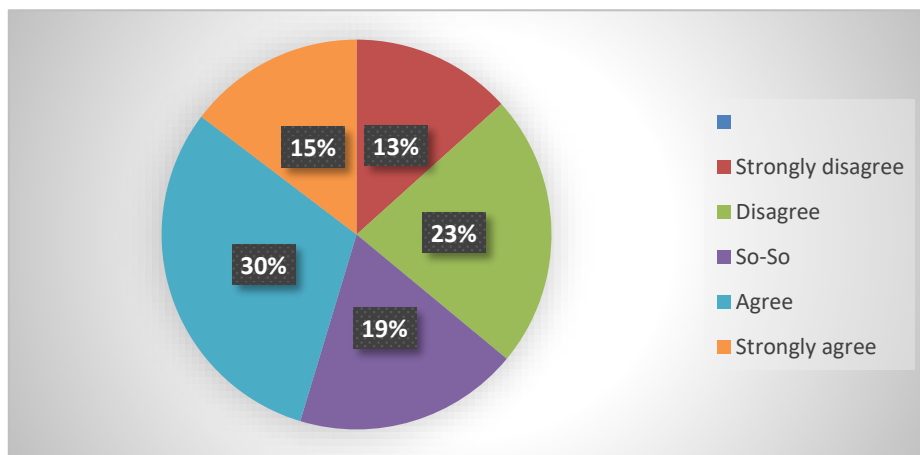


Fig. 3. Convenience of flipped classrooms

The results in Figure 3 indicate that a great proportion of 31% was in agreement with the contention that flipped classrooms were efficient in the acquisition of psychomotor skills. They were seconded by 15% who strongly supported the contention. The study also indicated that 19% of respondents indicated a mixed reaction as 35% (22%+13%) of respondents opposed the contention. The findings of this study are in tandem with a study by Goedhart et al. (2019) which indicated that in most cases, flipped classrooms were more convenient as they allowed students to attend class and do further learning at their own pace.

4.1.2 Preparation of financial reports through experiential learning

The study sought to determine how experiential learning affected the psychomotor skills of adult students concerning the preparation of financial reports. The results were as indicated in Figure 4.

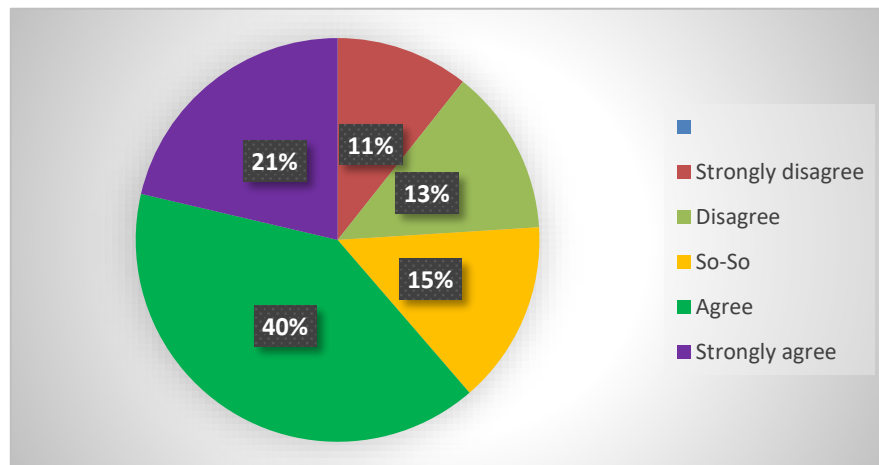


Fig. 4. Preparation of financial reports through experiential learning

According to Spanjaard et al. (2018), experiential learning is one promotes the acquisition of practical skills in vocational subjects as students are exposed to practical activities. The results of figure 4 indicated most respondents who constituted 61% supported the argument an indicator that the practical activities they were exposed to through experiential learning increased their skills.

4.1.3 Designing accounting records through experiential learning

The researcher sought to find out how experiential learning influenced the designing of accounting records. The results of the study were as indicated in figure 5.

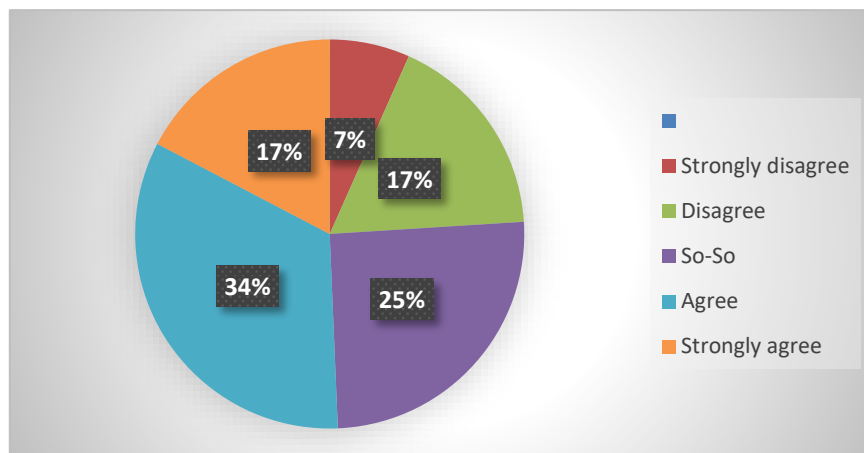


Fig. 5. Designing accounting records through experiential learning

Concerning designing accounting records, 50% of respondents were in agreement, 25% were neutral and 25% were not in agreement. The reason for a neutral disagreement is that adult learners were able to design financial records before joining blended learning classes. The other 50% who agreed with the statement learned the skills through blended learning. A study by Ahmed (2019) who assessed the application of experiential learning in counting indicated that most students were able to gain more psychomotor skills since experiential learning was more inclined towards practical activities.

4.2. Efficiency of blended learning in Adult learning

4.2.1 Transmission of information from the instructor to adult learners through an online platform

Given that blended learning was partly physical and partly online, the study sought to determine how efficient online learning impacted psychomotor skills transmission. The results were as indicated in Table 1.

Table 1. The efficiency of information transmission from the instructor during online classes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	12	16.0	16.0	16.0
	Disagree	33	44.0	44.0	60.0
	So-So	10	13.3	13.3	73.3
	Agree	13	17.3	17.3	90.7
	Strongly agree	7	9.3	9.3	100.0
	Total	75	100.0	100.0	

The results indicated that 60% indicated inefficiency, 13% were neutral and 26% agreed that the online platform was efficient. The reason for having many respondents indicated a challenge with online platforms is that the respondents were mostly adult learners who had digital literacy challenges. The geographical location of students also contributes to the extent of efficiency. A study by Zhang et al. (2020) indicates that students from rural and remote areas do experience learning problems in inline classes due to poor network coverage.

4.2.2 Stability of network during online classes

The respondents were asked to indicate their experience concerning the stability of the network during online classes. Their responses were as indicated in Table 2.

Table 2. Stable network during attending online classes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	13	17.3	17.3	17.3
	Disagree	28	37.3	37.3	54.7
	So-So	10	13.3	13.3	68.0
	Agree	17	22.7	22.7	90.7
	Strongly agree	7	9.3	9.3	100.0
	Total	75	100.0	100.0	

Looking at Table 2, 54.6% of respondents had network problems, 13% were neutral and 32% indicated they had a stable network during online classes. The mixed reaction of 13% indicates the network was partly stable and at times unstable. Therefore it can be said that the majority of respondents who constituted 54.6% had network problems. The findings of this study concur with results recorded by Tientcheu (2021) who cited that online classes posed challenges to at least 77% of the students due to unstable networks and poor connectivity.

4.2.3 The clarity of teaching material used for blended learning

The research question was stated positively to ensure respondents understood the intention of the research well. The question stated the teaching materials used for blended learning are of high clarity. The results of the study were as indicated in Table 3.

Table 3. The clarity of teaching material used for blended learning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	9	12.0	12.0	12.0
	Disagree	17	22.7	22.7	34.7
	So-So	9	12.0	12.0	46.7
	Agree	26	34.7	34.7	81.3
	Strongly agree	14	18.7	18.7	100.0
	Total	75	100.0	100.0	

Table 3 results indicate that 34.7% said the materials were not clear, 12% were neutral and 43.4% indicated the materials were of higher clarity. The 34.7% who indicated the materials had poor clarity could be the ones who indicated that they had poor network connectivity thus lowering the display of the content on the screen. The 43.4% are respondents who had good network coverage and attended physical classes as well. A study by Mather & Sarkans (2018) cited that the face-to-face learning program never impacted the clarity of learning materials. However, online learning negatively affected the clarity of the information depending on the connectivity of the students.

4.2.4 The power fluctuations influence class absenteeism

Given that blended learning is partly online and partly physical, the study sought to determine if power fluctuations caused adult learners to miss attending classes.

Table 4. Power fluctuations during blended learning a factor that makes me miss important lessons

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	14	18.7	18.7	18.7
	Disagree	25	33.3	33.3	52.0
	So-So	10	13.3	13.3	65.3
	Agree	17	22.7	22.7	88.0
	Strongly agree	9	12.0	12.0	100.0
	Total	75	100.0	100.0	

The results indicated that 12% strongly felt they missed classes due to power problems, 22.7% agreed but to a lesser extent and 13.3% indicated neutral responses. In addition, 52% of learners indicated they were not affected by power fluctuations and thus disagreed with the statement. A study by Nambiar (2020) indicated that students who operated from urban areas never experienced power problems since many social amenities in towns required to power all the time. In the event there was a power blackout, it was restored immediately unlike the individuals in rural areas who could wait for power restoration after some hours. This implies that 52% of adult learners operated from urban and peri-urban areas.

4.2.5 Degree of satisfaction with blended learning

Based on their experiences during blended learning, the respondents were asked to state their observations on a four-Likert scale of the extent of satisfaction. The results were as indicated in Table 5.

Table 5. level of satisfaction with blended learning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not satisfied at all	15	20.0	20.0	20.0
	Somehow satisfied	35	46.7	46.7	66.7

Not sure	9	12.0	12.0	78.7
Highly satisfied	16	21.3	21.3	100.0
Total	75	100.0	100.0	

The results indicated that 21.3% were highly satisfied, 46.7 were somehow satisfied, 12% were not sure and 20% were not satisfied with blended learning at all. Therefore, it can be said that 68% of respondents were satisfied with blended learning. The findings of this study are in agreement with the study by Bouilheres et al. (2020) who cited that most students prefer blended learning due to its high degree of flexibility as opposed to the rigid traditional learning approach.

4.3. Application of Information Communication and Technology (ICT)

4.3.1 The electronic device used for flipped classroom

The study sought to determine the electronic device mostly used by respondents. This was deemed necessary since blended learning requires a medium of communication, especially online classes. The results of the study were as indicated in Table 6.

Table 6. The electronic device used for the flipped classroom

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ipads	10	13.3	13.3	13.3
	Laptop	25	33.3	33.3	46.7
	computers	10	13.3	13.3	60.0
	Smartphone	30	40.0	40.0	100.0
	Total	75	100.0	100.0	

The results indicated that 13% of respondents used Ipads, 33.3% used laptops, 13.3% used computers, and the majority of respondents who constituted 40% used smartphones. According to Sage et al. (2019), most students use smartphones for online classes because they are cheaper compared to laptops. In addition, smartphones are easier to manipulate as opposed to computers and laptops. Therefore, adult learners opted to use mobile phones since they were quite familiar with them and they are considered portable and thus offer high convenience.

4.3.2 Level of internet stability for downloading learning materials

The respondents were asked if the internet was stable to an extent of supporting downloading of revision materials during and after online lessons. The responses were recorded as percentages as shown in Table 7.

Table 7. Level of internet stability for downloading learning materials

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very unstable	31	41.3	41.3	41.3
	Unstable	14	18.7	18.7	60.0
	not sure	9	12.0	12.0	72.0
	Stable	13	17.3	17.3	89.3
	very stable	8	10.7	10.7	100.0
	Total	75	100.0	100.0	

The results indicated that 41.3% had very unstable internet, 18% recorded unstable, and 12% a high number of learners indicated internet challenges contributed by the nature of the devices they used for their studies. From the preceding literature, most learners used smartphones, which are subject to internet connectivity, in addition, the

connectivity, may have been influenced by the locality of the learners. These findings are in tandem with a study by (Oloyede et al., 2022) who cited that in the event students opted to use smartphones to attend online classes, most of them recorded connectivity challenges depending on the RAM of the smartphone.

4.3.3 Preference of Face to face learning because of socialization

The researcher sought to determine the respondents feeling concerning face-to-face learning and comparison to blended learning. The results were as indicated by Figure 6.

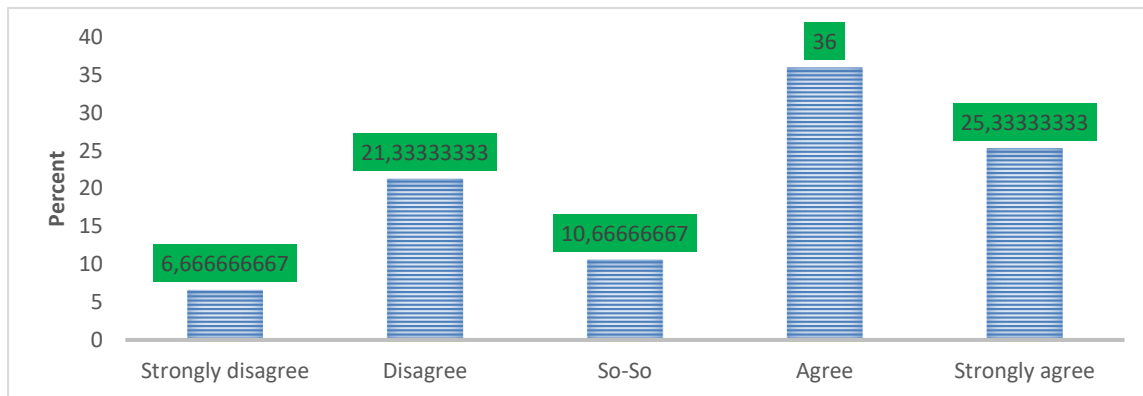


Fig. 6. Preference of Face to face learning because of socialization

Figure 6 results indicated that 6.7% of respondents strongly disputed the statement, and 21.3% disagreed as well. 10.7% were neutral, 36% agreed they preferred face-to-face learning and 25.3% strongly felt face-to-face learning was better. Therefore 61.3% of learners preferred face-to-face learning 27.9% opposed face to face learning. The reason for many respondents opting for face-to-face learning could be attributed to the fact that they had experienced challenges with the connectivity of devices. In addition, most adult learners prefer to do social or group learning as they highly depend on each other (Lee et al., 2019).

4.4. Psychomotor Skills

4.4.1 Ability to do fast typing when serving clients due to blended learning skills

The responses on the ability to do quick typing were as indicated in Table 8.

Table 8. Type very fast when serving clients

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	7	9.3	9.3	9.3
	Disagree	12	16.0	16.0	25.3
	So-So	9	12.0	12.0	37.3
	Agree	29	38.7	38.7	76.0
	Strongly agree	18	24.0	24.0	100.0
	Total	75	100.0	100.0	

The results indicated that 25.3% were not in agreement with the statement, 12% were neutral and 62.7% agreed. The high percentage of respondents that indicated they got hands-on skills that helped them to do quick navigation

through the keyboard is based on the fact that blended learning offered a chance for physical learning which made them do more practicals. Online learning limits learners from practical activities but is more theoretical.

4.4.2 Influence of blended learning on Speaking as a psychomotor Skill

A competent accountant should be a good communicator with the customers. This study sought to determine how blended learning influenced the speaking aspect of the learners and the results were as indicated in Table 9.

Table 9. Influence of blended learning on Speaking as a psychomotor Skill

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not helped at all	10	13.3	13.3	13.3
	Has helped to a small extent	15	20.0	20.0	33.3
	I am not sure	10	13.3	13.3	46.7
	Has helped to a large extent	40	53.3	53.3	100.0
	Total	75	100.0	100.0	

The results indicated that 13.3% were not at all helped, and 13.3% were not sure. However, 73.3% indicated blended learning helped them improve their oratory skills. A study by Ironsi & Popescu (2021) cited that blended learning promoted efficient communication through the maximum use of both offline and online classes.

5. SUMMARY

5.1. Mode of Teaching

The study findings indicated that a great proportion of 31% were in agreement with the contention that flipped classrooms were efficient in the acquisition of psychomotor skills, 61% supported the argument as an indicator that the practical activities they were exposed to through experiential learning increased their skills in preparation of financial reports and 50% were able to design accounting records.

5.2. The efficiency of blended learning on Adult learning

The results indicated that 60% experienced inefficiency, 13% were neutral and 26% agreed that the online platform was efficient in transmitting information from instructor to learners. 54.6% of respondents had network problems, 13% were neutral and 32% indicated they had a stable network during online classes. Regarding clarity of materials, results indicate that 34.7% said the materials were not clear, 12% were neutral and 43.4% indicated the materials were of higher clarity. The results further indicated that 12% strongly felt they missed classes due to power problems, 22.7% agreed but to a lessees extent and 13.3% indicated neutral responses. In addition, 52% of learners indicated they were not affected by power fluctuations and thus disagreed with the statement. In addition, 68% of respondents were satisfied with blended learning.

5.3. Application of Information Communication and Technology (ICT)

The results indicated that 13% of respondents used Ipads, 33.3% used laptops, 13.3% used computers, and the majority of respondents who constituted 40% used smartphones. The results indicated that 41.3% had very unstable internet, 18% recorded unstable, 12% were not sure, 17.3% indicated the internet was stable and 10.7% indicated very stable internet. Therefore, 60% had unstable internet and only 28% had stable internet.

In addition, the results indicated that 6.7% of respondents strongly disputed the statement, and 21.3% disagreed as well. 10.7% were neutral, 36% agreed they preferred face-to-face learning and 25.3% strongly felt face-to-face

learning was better. Therefore 61.3% of learners preferred face-to-face learning as 27.9% opposed face-to-face learning.

6. CONCLUSION

The following are the study's main findings:

- Experiential learning and flipped classrooms promoted the acquisition of psychomotor skills which helped in designing financial records.
- The online aspect of blended learning was inefficient due to internet instability, power fluctuations, and low clarity of learning materials.
- Most learners used smartphones for learning, majority of learners indicated they preferred face-to-face learning.

7. RECOMMENDATIONS

The following are the recommendations based on the study's findings:

- Blended learning should be extended in teaching accounting adult learners due to its high flexibility.
- All adult learners who need to attend blended learning classes should adjust to a locality with better internet and a constant power supply.
- Adult learners should purchase laptops rather than use smartphones for classes.

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Problems and Countermeasures of Academic Style Management in Chinese Private Undergraduate Universities

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Abstract

Excellent style of study is the basic guarantee of improving the quality of education and teaching. School education plays a decisive role in both the society and the individual development of students. The research on the construction of academic style has positive significance to the development of society. The construction of academic style plays an important role in ideological and political education in colleges and universities. Based on this, this paper takes three private colleges and universities in China as the research object, establishes the evaluation index system of academic style by combining literature and suggestions, determines the index weight through analytic hierarchy process, constructs the fuzzy comprehensive evaluation model of academic style in colleges and universities by fuzzy comprehensive evaluation method, and evaluates the construction level of academic style in private colleges and universities. The research results are as follows: The evaluation results of the construction level of the academic style of private colleges and universities are good, but there are some problems. Through the study of five factors affecting the construction of academic style in colleges and universities to make a questionnaire, through the analysis of the results, put forward to strengthen and improve the construction of private colleges and universities academic style. The approaches are as follows: adhere to the ideological and political theory course as the main teaching channel, focus on improving the effectiveness; Improve the style of study practice education, give full play to its function; Grasp the media carrier of colleges and universities to form an all-round communication system of study style education; Strengthen the construction of college campus culture, broaden the path of education culture; Strengthening the construction of academic style education team in colleges and universities to effectively guarantee educational achievements.

Keywords: private colleges and universities, Study style construction, Evaluation of study style, Ideological education

1. INTRODUCTION

As the foundation of university establishment and the soul of development, the style of study is an important work that colleges and universities often grasp. In order to do well in the connotation construction of private undergraduate education in China, improve the quality. Study style management plays a key role in the development of private colleges and universities. China's private universities started late, the development foundation is poor, there is a big gap between the management system of study style and public universities. The pace of market-oriented employment of graduates in private colleges and universities is speeding up, and private colleges and universities are facing more and more complicated situations. Students' learning foundation is poor, learning initiative is not strong, self-control is not strong, so private colleges and universities need to build a management system of characteristic study style according to their own conditions. At present, there is no doubt that the defects in

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the construction of academic style in colleges and universities are exposed, which leads to the delayed improvement of the quality of talent training. Therefore, colleges and universities must actively explore and study the strategies to better adapt to the characteristics of The Times under the construction of academic style, which is a must for the development of education in the new era. This paper systematically expounds the management of academic style in private colleges and universities, and probes into its corresponding countermeasures, in order to give guidance on the epistemology and methodology of the management of academic style in private colleges and universities, and enrich the research results of the management of academic style in colleges and universities. Through the cultivation of excellent style of study, on the one hand, it solves the problem of college students' learning of professional knowledge, on the other hand, it solves the problem of the cultivation of college students' comprehensive quality. At the same time, it is of great significance to effectively and efficiently improve the level and efficiency of the study style management of private colleges and universities, create a good learning atmosphere, build a high-level education system for private colleges and universities, improve the quality of running schools and expand the comprehensive strength.

2. THEORETICAL BASIS OF RELATED RESEARCH

The concept of style of study can be divided into two categories: broad and narrow. In a broad sense, the style of study includes the style of school governance. Teachers' style of study is good and students' atmosphere of study is good. In a narrow sense, the style of study is students' atmosphere of study. In this paper, the style of study refers to the narrow sense of style of study, students' learning climate, that is, students after long-term learning to develop a relatively stable learning climate and atmosphere. Learning style is a kind of learning attitude, positive will and spirit which runs through learning activities. The construction of the style of study, one is to do well in the ideological education of students, establish correct and firm values, world outlook and outlook on life, from the connotation, it contains the students' concept of learning. To lead the students with the right ideas, let the students form the right attitude towards life and learning, to guide the students' daily behavior activities with the right ideas, in order to achieve the purpose of moral education and cultivating people.

Management by objectives theory was developed after the 1950s, its core is the overall goal of the organization, the use of systematic methods, the construction of hierarchical goal system, and through the incentive of hierarchical decentralization, stimulate the initiative of the manager, urge the manager to efficiently execute organizational tasks according to the goal. The most fundamental characteristic of this theory is systematic management, results-oriented management, people-oriented management, emphasizing people-oriented, to guide all personnel to participate in. The theory of educational management by objectives is to apply the theory of management by objectives to the field of education. In the research, the theory of educational management by objectives provides certain theoretical support for the construction of evaluation index system of academic style construction in colleges and universities.

In the 1930s, since Hawthorne founded the theory of interpersonal relationship on the basis of experiments, behavioral science began to put people in the first place in the management of learning, even in the central position. The theory of people-oriented management originated in the 1960s, when Douglas MacGregor put forward the X-Y theory. In his opinion, management should attach importance to people. In 1987, he published an article "The Human Aspects of the Enterprise", arguing that all management decisions and the implementation of management measures are closely related to the characteristics of human nature and the behavior assumptions behind it.

The educational principles of Makarenko's collectivism mainly include the combination of respect and demand, the influence of parallel education, and prospect education. As for the study style, foreign scholars' research on the style of study is mostly from the perspective of academic problems, here is mainly the problem of learning, which is of certain reference value for the construction of the style of study in Chinese universities. Decoo, Colpaert W believes that there is a crisis of academic misconduct in universities. It is necessary to strengthen the moral quality of students, teachers and researchers. In view of the thorny problems, a detailed test platform is provided, as well as a large number of pedagogy tools. Farland Michelle Z and Childs Kean Lindsey M proposed that maintaining academic integrity is the key for educators, and discussed the necessity of reevaluating graded courses in order to maintain academic integrity.

Domestic scholars' research on academic style in universities is partly based on relevant ideas to study academic style and find out the problems, and put forward solutions. Partly through construction, the index evaluation system is established, the university is evaluated and verified, the influencing factors are analyzed, and the countermeasures are put forward.

In Huang Mengyu's opinion, the formation of the style of study is influenced by many factors, such as the influence of society and family, school and personal factors, and the style of study is always changing. On this basis, with the connection with the reality, the study style construction countermeasure research and feasibility analysis. Xie Guihong started from the analysis of the importance of the current construction of academic style in Chinese universities, focusing on the students as the object of ideological and moral education, teaching style construction, the construction of school style and so on several aspects of the study, the purpose is to put forward several effective suggestions on the construction of academic style in Chinese universities, so as to promote the construction of academic style in colleges and universities, and lay a solid foundation for the overall teaching development of universities. Taking Xingyi Normal College for Nationalities as an example, Wang Meina, Fu Danhui et al explored 15 factors affecting the construction of the local college study style, which can be summarized into five categories, namely, school, society, family, teachers and students.

3. RESEARCH METHODS

By referring to a large number of domestic and foreign research materials and literature, this paper collected and sorted out the relevant contents of the evaluation of the academic style of colleges and universities and the influencing factors of the construction of the academic style of colleges and universities, and grasped the latest research trends of the construction of the academic style of colleges and universities in China. In this paper, questionnaire star combined with literature, data and suggestions to design questions and issue questionnaires. In this paper, questionnaires are distributed to students in three private universities in China, and data are collected and analyzed accordingly. The analytic hierarchy process (AHP) is to decompose the evaluation indicators of academic style into different hierarchical structures according to the hierarchy and sequence, and then obtain the weight by solving the eigenvector of the judgment matrix, and finally obtain the final weight. The fuzzy comprehensive evaluation is carried out for 22 indicators and 5 comments (excellent, good, medium, average, poor). The weighted average type $M(*,+)$ operator is used to carry out the research. Firstly, the weight vector A (calculated by analytic hierarchy process) of the evaluation index is used to construct the weight judgment matrix R of 22×5 . Finally, the membership degree of 5 sets of comments (excellent, good, medium, average, poor) is obtained through analysis. The maximum membership degree law of the set can get the final comprehensive evaluation result.

The questionnaire was designed from five dimensions of school, teachers, students, families and society according to the influencing factors of the style of study. The scale method was adopted, and the options were designed as degree scales, which were completely inconsistent, relatively inconsistent, basically consistent, relatively consistent and completely consistent.

This questionnaire is based on students in three private universities. In order to ensure the authenticity of the data, the questionnaire adopts the method of anonymous survey and is distributed on the network through the questionnaire star. There are 268 valid questionnaires for this questionnaire. Statistical analysis of the basic information of the survey objects.

4. CONCLUSION

There are problems:

1. College students' consciousness of style of study is weak. First of all, college students' understanding of mainstream ideological theories is not thorough enough. A small number of college students only learn theories in the course of mainstream ideology, and regard it as a way to obtain credits. Theoretical learning is too utilitarian. Secondly, the study style of college students is easy to be disturbed by bad network information. With the rapid development of network information technology, the Internet has built a bridge of communication between college students and the outside world. College students obtain knowledge and materials beyond the books through the Internet and broaden their horizons. However, relatively pure college students can not identify all kinds of ulterior motives flooded in the network of materials, easy to be confused by the appearance of things, the nature of things can not be correctly understood, it is difficult to find the hidden value penetration behind these messages.

2. The attractiveness and timeliness of education are not obvious. Schools take education as a means to educate students about the style of study, so as to ensure the ideological safety of students and ensure the direction of running a school under socialism. However, there are still many defects in the role of education as a medium. For one thing, many teachers mostly follow the traditional teaching methods, which results in the low participation degree of college students in learning and the main role of college students is not fully played. On the other hand, the

style of learning education lacks specific content. Marxist ideology is often cut to be abstract and one-sidedness, slogan is a political concept, and the historical background of ideological and political theory course content is different from the time when college students grew up, and does not meet the requirements of college students' realistic thoughts, in addition, some fundamental issues of the party's situation and national conditions are not well understood and insufficient understanding. As a result, ideological education in colleges and universities is divorced from the reality of college students, so as to set up artificial barriers with college students, which inadvertently puts on a layer of "dogmatic" veil for Marxist ideology.

3. Colleges and universities pay insufficient attention to the style of study education, colleges and universities is the main position to carry out the construction work of the style of study in private colleges and universities, the attention to the style of study, determines the quality and level of college students' style of study education, from the current point of view, some colleges and universities in this aspect there are still some problems, on the one hand, Some college leaders will focus on the main task of the school on the employment rate of graduates and recruitment publicity, improve the scientific research ability and hardware facilities and other remarkable results, in the easy quantitative works, but ignore the style of education of college students.

Reasons for the analysis:

1. Classroom teaching is still biased towards indoctrination, and the effectiveness is not strong. The ideological and political theory course is the main channel and the main front of the study style of private colleges and universities, which is one of the methods that must be done well. But the reality of ideological and political theory classroom teaching, there is still one-way indoctrination phenomenon. The educatees are passively indoctrinated by the educators in a closed environment, and the information is transmitted as a "teacher-student" interactive feedback mechanism. Although this method is conducive to positive indoctrination, it is also restricted by the quality of educators and other factors, so the teacher is not persuasive, and often produces the adverse consequences of getting half the result with less effort.

2. Social practice is more important than the form meaning, the effect is not ideal. Social practice education is one of the important ways to strengthen the construction of study style in private colleges and universities. It is particularly important for college students to understand society, understand national conditions, form character and strengthen the cultivation of social responsibility. However, in a long period of time, the practice teaching in many colleges and universities is generally heavy on form and light on meaning.

3. The construction of campus culture lags behind, and the value system is not optimistic. Excellent campus culture, as a precious educational resources, it can cultivate sentiment, purify the soul, promote the students' world outlook, outlook on life, values healthy shape. At present, the construction of campus culture in colleges and universities is compared with the construction and development needs of study style in private colleges and universities, and the phenomenon of lagging is very common. The key lies in the college for the campus culture construction does not have a clear understanding, no reasonable planning, for its function and role in the style of learning education, people's understanding is not comprehensive, not exact, resulting in the function and role of the campus culture in the style of learning education has not been fully played, the style of learning education this important goal has not really been actively implemented.

4. The construction of college media carrier is insufficient and the educational function is not fully played. College media as an important medium to carry out the construction of academic style in private colleges and universities. Campus media is a part of mass media which can not be ignored. Mainly college students, campus media plays an important role in the education of academic style. Modern society includes newspapers, magazines, radio, television, movies and other media, the Internet and other mass media, especially the new media forms that have grown rapidly in recent years, such as mobile phone media and media forms on the Internet, blog, microblog and wechat. Its interactivity and innovation give college students a world where they can grow up in step with the international community and give full play to their talents. For college students, the scope and depth of behavioral influence is increasing. On the one hand, mass media provides useful information for college students, but also mixed with a large number of negative, vulgar and even ulterior motives. The complex and diverse reality also increases the difficulties of value choice and moral judgment for college students, and some "information garbage" will weaken and impact the original ideology of college students.

5. The professional awareness of the educational team is not strong, and the professional quality needs to be improved. The construction of study style in private colleges and universities is the basic guarantee of doing well the construction of study style in private colleges and universities. At present, some colleges and universities have not paid enough attention to the construction of the team in the construction of the study style of private colleges and

universities, and there are still insufficient numbers, unstable team and unreasonable structure of the educational team.

5. SUGGESTIONS

1. Deepen the reform of ideological and political theory courses. The subject of Marxist theory is to study Marxism as a whole, which is an important part of the subject system of Marxism. The subject of Marxist theory is to strengthen the national mainstream ideology, promote the Party's ideological and theoretical construction, consolidate the guiding position of Marxism in college education and teaching, provide a solid disciplinary basis for college education and teaching, provide a strong disciplinary support for college ideological and political theory courses, and build an important disciplinary platform for the teachers of college ideological and political theory courses. Renew the educational idea and attach importance to the ability of theoretical thinking and value judgment. Improve teaching methods and arouse the enthusiasm of college students in class. Innovative teaching methods to enhance the attractiveness and appeal of the classroom.

2. Improve the mechanism of social practice education. Change the concept, understand the social practice education correctly. Have the courage to blaze new trails and enrich the educational forms of social practice. Social practice activities in colleges and universities are of great guiding significance for college students to deepen their understanding of their major, identify the right career direction, and improve their competitive advantage in employment.

3. Strengthen the construction of campus culture. Change the concept of campus culture construction, highlight the importance of spiritual connotation. Activate the main body of campus culture construction, and cultivate the consciousness of joint construction of all staff. The ultimate purpose of campus culture construction is to create an atmosphere, in order to mold the temperament, construct the healthy personality of students, improve the overall quality of students. Campus culture plays a great role in the completion of training objectives in colleges and universities, which determines that it is not only dependent on the work of a certain department on campus can achieve due results, but is linked with the work of the school. Therefore, strengthen the construction of campus culture, the main role of campus culture construction of school teachers and students to play, establish the consciousness of full co-construction, construction of full co-construction of campus culture system, senior, junior, down to every teacher and student staff, should be taken seriously, participate in the construction of campus culture.

4. Occupy the position of network education. Purify the environment for online education and create a clean and honest cyberspace. Constantly enrich the connotation of network education, actively excavate network education resources with network education content as the medium, to carry out network education style of college students, which directly affects the effectiveness of the construction of private colleges and universities, must open up the position of college students' network education style, we must further enrich the connotation of network education. We should attach importance to the rich and colorful content of network education, keep pace with The Times, take into account both the requirements of social development and the individual development needs of college students, integrate the particularity of network space into the content system of network education, and improve the content system of education. Enhance the network interaction and communication and students' sense of participation in the network. Only the social requirements imposed on the educational object from the outside will stay outside the spirit of the educational object. Only the social requirements based on mutual understanding and respect can be rooted in the heart of the educational object. If the network education constructed by the academic style of private universities only knows how to blindly propagandize education, rather than pay attention to the exchange and guidance of ideas, it is often difficult to work. This requires educators to make full use of the characteristics of instant interaction of the network to enhance the communication and exchange between college students, so that the education method from one-way indoctrination to two-way exchange.

5. Strengthen the construction of teachers. School, is the home field of the new cultivation of The Times, teachers as knowledge, ideas, truth disseminators, it has a theoretical level, professional quality, teaching ability level, directly affect the learning and development of students. Therefore, the school should carry out the teachers' ethics construction mechanism, to cultivate the new era, to build a solid and excellent education team to provide a guarantee. We must closely combine the cultivation of socialist builders and successors with the cultivation of new people in the era of national rejuvenation, and train several generations of inheritors and successors who are striving for national rejuvenation.

6. RESEARCH LIMITATIONS AND INFLUENCE ON FUTURE RESEARCH

Due to the limitation of research capacity and conditions, the survey sample of China's private undergraduate universities is single, and the distribution of China's private undergraduate universities and regional economic and cultural differences are large. It is not comprehensive enough. Future research may adopt structural equation model to establish a model including thinking set, individualistic learning environment, individualism and learning motivation, etc. All the variables in the study are negatively correlated with the learning style, which indicates that the improvement of thinking mode, learning environment and motivation can play a positive role in the construction of learning style.

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Research on Physical Health Management for Primary School Students Based on Student Development Theory - Take Qingxi Primary School in Xiushan, Chongqing as an Example

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Abstract

In order to improve the physical status of students in Chongqing Primary school, through SPSS software to analyze the relevant factors affecting students' physical health, understand the physical development of students in time, promote the healthy development of students' physical fitness. In the study, five hypotheses related to students' physical health were put forward, and then the hypotheses were verified and conclusions were drawn. And put forward strategies to promote the management of students' physical health.

Keywords: Physical health, mental health, relevance, Physical health, Management strategy

1. INTRODUCTION

Along with the take-off of China's economy and the improvement of the people's living environment, Standard of living Significantly improved People are getting more and more pay attention to physical health, especially the mall Physique of students health is worth mentioning.

1.1 Research background

Primary school students are the future of the motherland, which affects the sustainable development of the country. But in recent years, the physique of primary school students healthy not optimistic, physique health Has been a significant downward trend. Students' eyesight is declining, dental caries are increasing, lung capacity levels are declining, and more and more obese and overweight are all in the physique of primary school students Healthy. Some outstanding problems have also become unique social problems in China.

On November 5, 2019, the Ministry of Education held the fifth press briefing on health promotion actions in primary and secondary schools and the prevention and control of adolescent myopia situation (news center,2019).” On April 21, 2021 [2021] Document take measures to promote students' fitness in six aspects (Notice of the Ministry of Education, 2021). On June 2, 2021, Chongqing accepted the Office of the Education Supervision Committee of the State Council." Five management items” (2021).

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On August 5, 2021, Chongqing will implement "Great reform" Actively carry out homework, sleep, mobile phones, extracurricular books and physical health for primary and secondary school students. "Five management items" quality monitoring, promote "Five management items" scientifically accurate and implemented, and strive to ensure the healthy and happy growth of primary and secondary school students (five management of Chongqing Education Commission 2021).

In recent years, Xiushan County, Chongqing Qingxi Primary schools actively promote the physical development of primary school students and have achieved remarkable results. But Xiushan County, Qingxi Primary school students still have physique Health management. This article collects and sorts out Qingxi Primary school 6 years of development Medical examination data and related management policies, At the same time, physical and mental health questionnaires were conducted for students in the school, combined with 1,402 physical health questionnaires and 390 mental health questionnaires recovered. Organize and analyze to summarize Qingxi Primary school students' physical and healthy Current situation, analysis affects the physique of students in Qingxi primary school health management and put forward corresponding countermeasure.

1.2 Research significance

Physical health management is very important for everyone, affecting people's physiological function, physical quality and psychological quality. It is reflected in human body shape, daily work, perception, communication, perseverance, physical health and other aspects. It can be seen that physical health affects all aspects of people.

This paper mainly aims at the research on the physical health management of students in Qingxi Primary School, including the physical health test data and mental health questionnaire data of students, and compares and analyzes the physical examination results of students in 2015-2021 to obtain the overweight and obesity, low weight, malnutrition, low vision, weak vital capacity, etc. of students. This paper discusses the influencing factors of students' physical health problems, puts forward five hypotheses, demonstrates the relevant hypotheses, and puts forward the countermeasures of students' physical health management to enrich the health reform of the school system.

2. LITERATURE REVIEW

2.1 Conceptual definition

2.1.1 Physical fitness

"Constitution" the word has a long history and was mostly used in medicine. More than 2,000 years ago, the Emperor's Book of Internal China this book, in the book, just the theory of yin and yang is used to systematically explain the human physique, and the physique of the human body is classified and described in detail (Yao Chunpeng, 2015).

2.1.2 Health

Health is the goal that people pursue, and people have different understanding of it at different times. In ancient times, people thought that the body had no disease or injury, and that the body was intact, which was healthy. The research believes that "Healthy" It refers to a state of balance in physical and mental health.

2.1.3 Differences and connections between physique and health

Physical fitness refers to the stability of a person's objective state, which includes a person's physical health and quality ability, while health is volatile. Health includes four dimensions: physical, psychological, social adaptation and morality, while physique is a smaller category and a dimension of physical health. "Physical and healthy" Defined as a good state of an individual's physical form, function, quality and motor ability (Peng Ding, 2019).

The research believes that "Physical and healthy" can be understood as the healthy growth of human body shape and physical function, human emotional harmony, and a state of peace of mind. "Physical health management" refers to a governance strategy adopted by people in a harmonious state of balancing physical and mental health.

2.2 Current status of foreign research

The healthy physical development of primary and secondary school students is critical to the development of all countries in the world. Scholars around the world are very concerned about students' physical health. The first international organizations to conduct physical health assessment research international are the International Physical Research Committee and the International Council for Biological Development Planning, and have developed their own evaluation indicator systems in terms of endurance, strength, speed, sensitivity, flexibility, waist and abdominal strength, etc., which provides a reference basis for the establishment of physical health evaluation indicators in various countries later (Bai Xue, 2018).1974,The International Commission on Physical Research will conduct medical examination, physiological measurement and physiological index, morphological measurement and body composition. Four aspects of the basic physical fitness test. It is collectively referred to as the indicator of physical testing (Bian Yucheng, 2009).

The Biological Development Planning Council (IBP) believes that physical Testing Finger: Growth and morphological development, genetic function, work ability and lung function, climate adaptation, nutritional status evaluation, medical and metabolic research, sociological evaluation of population and analysis of relevant sociocultural factors(Sugiyama K, Hamlin M J, 2013).

2.2.1 United States

According to the results of the Kraus-Weber test in 1954, At that time, the physical condition of teenagers in European countries was significantly higher than that of the United States, which had a great impact on American officials and citizens (Wang Qiaoqin, 2007). President Senhower ordered the establishment of the Presidential Commission on Youth Fitness in the United States to coordinate the physical work of adolescents across the United States, and issued a national standard manual for juvenile physique tests, which was gradually implemented throughout the weeks, laying the foundation for the healthy physical development of children and adolescents in the United States (Zhang Baoqiang, 2010).

In 2010, Welk G. J and Meredith Research by M.D shows that after years of exploration, Texas, USA, has established a complete physical health evaluation standard and test system for primary and secondary school students, and formulated regulations to promote the standardization and the orization of students' physical health tests(Sun Zhongwei et al. , 2013).

Welsh, 2012 E recommended that Kansas use the K-FIT health information tracking system to monitor the health status of students, including demographic characteristics, physical function and quality, to deal with the physical health problems of American teenagers in recent years(Welk Gregory J,Mereditth Marilu D,Ihmels Michelle,Seeger Chris,2010). In September 2012, the American Sports Health Promotion Association, the American Sports Press, the U.S. Centers for Disease Control and Prevention and other institutions jointly launched the famous President's Youth Fitness Program (Research Group of China National Physical Fitness Monitoring System Department of Science and Education of General Administration of Sport of China, 2000).

In 2015, a presidential adolescent physique project with a health-based evaluation was established in the United States. Its physique test evaluation system is FITNESS-GRAM, which uses normal reference standards for evaluation reports, similar to our National Physical Health Standards for Students (Sun Zhongwei,et al.,2013).

2.2.2 Japan

In 1939, for the sake of the war,Japan, the largest national physique test in history was carried out. The new indicator system divides age groups into four categories: primary school, secondary school, 20-64 years old and 65-79 years old. Physical measurement in Japan has been standardized (Bian Yuchen, 2009).

Sugiyama, K and Hamlin M.J. (Welk G J,et al.,2013),An analysis of the health levels of children aged 11 and 12 in Japan and New Zealand found that the number of obese and overweight children in Japan is lower than that in New Zealand, while the number of lighter students is higher than that in New Zealand. In 2014, Minematsu K and Kawabuchi conducted research on measures to promote the health of Japanese students, proposed effective measures on childhood obesity, further proposed relevant laws and policies to ensure the physical health of students in Japan, attached importance to students' physical education classes and extracurricular activities, improved stadiums and facilities, and conducted nationwide publicity and discussions to greatly promote the healthy development of students(Welsh E.,2014).

In March 2017, Japan Promulgated last the five-year sports policy of the Basic Plan for Sport. Come on, Improve sports Classroom, Strengthen martial arts guidance and Measures to prevent accidents (Minematsu K, Kawabuchi R, Okazaki H, et al., 2014).

2.2.3 Russia

In order to improve the physical quality of primary and secondary school students, the Soviet Union put forward the principles of practicality, fitness and integrity for the physical health of primary and secondary school students before 1925. Promulgated by Russia in 1931 "Labor and national defense system" The system plays a programmatic guiding role in the physical health standard. In the process of implementation, the government has made six changes, which were promulgated in 1989. "New labor and national defense system" Due to ignoring the individual differences of students in the implementation process and eroding the enthusiasm of sports people, the system was abolished in 1991, and President Putin restored the labor system in 2014. In order to improve the physical health problems of Russian students, students' physical fitness test results were used as a basis for bonus points or scholarships at admission (Ma Zhongli, Li Yongbin, 2015).

2.3 Current status of domestic research

Advanced search on CNKI "Physical and healthy", obtained 92433 documents, through search "Primary and secondary schools" "Physical and healthy" 2,933 documents were obtained. Search by time frame from January 1, 2018 to August 27, 2022 "Primary and secondary school students" "Physical and healthy" There are 921 documents. Retrieved from January 1, 2018 to August 27, 2022 "Primary and secondary schools" "Physical and healthy" Master's and doctoral thesis, 128 documents were obtained. Through the study and summary of these 128 documents, it is found that domestic scholars according to the actual situation in the country, long-term in-depth research has been carried out from different perspectives, and some research results have been achieved. This study Right these documents Summarize and organize. I selected 24 documents closely related to this study. Summarize it as 4 Individual aspects to make a summary.

2.3.1 Research on the current situation, influencing factors and solutions of physical management

In 2011, Yao Xiaoyan (2015) conducted a statistical analysis of the indicators of the 2005 and 2010 physical fitness tests for boys and girls and obtained the trend of changes in the two-year physical fitness indicators. In 2012, Zhao Shantao (2012) was carried out, and suggestions were put forward in four aspects: concept renewal, enrichment of teaching content, encouragement of physical exercise and rational allocation of resources. Zou Yinping (2013) concluded that Physical fitness has also been further improved, higher than the national average, and the physical condition of students is gradually developing in a good direction. Fu Zhiqin was carried out that "Three-line tables and line charts are used to count the physical health indicators of boys and girls and conduct in-depth analysis of these data to obtain the trend of physical measurement indicators" (Fu Zhiqin, Peng Yanming, Chen Yuqun, Liu Jinsong, 2014). Zhang Yujun (2015) found that there are differences in students' physical form, students' physical fitness and influencing factors, students' lack of interest in physical exercise, parents lack scientific knowledge of dietary theory, and schools do not pay attention to students' physical exercise. Huan Changdian (2016) conducted a study on the coordination of China's adolescent physical health policies, and concluded that public policy is an important tool for the physical health management of adolescents, and policy coordination is of great significance to the realization of governance effect. Luo Lei (2017) deeply analyzed the health management situation of primary and secondary school students, and put forward countermeasures and suggestions to strengthen the health management of primary and secondary school students from the four levels of government, schools, families and students. Zhou Lei provided a more scientific and effective theoretical and practical basis for the standardization and rationalization of primary school students' physical health testing (Zhou Lei, Wang Xinxin, Hu Wujin, 2018). Chang Feng concluded that the physique health of primary school students in Wuhan was generally average, the rate of excellence was low, and the failure was high. Excellent body shape performance, good physical function performance, and five major physical qualities are average or poor (Chang Feng, Huang Kun, Wang Lu, Wang Xiao, Chu Xiaoling, Zeng Ji, 2019). According to the results of the physical health monitoring of students of the Ministry of Education, Cai Xianqiang (2019) found that the obesity rate and myopia rate of primary school students are increasing year by year and exercise is harmful to primary school students Constitution Health plays a positive role. Yin Rui (2022) studies the current situation of children's sports and health core literacy from three dimensions.

Wang Dandan (2022) researched and discovered the various sports items in the group intervention model have a more significant effect on improving physical fitness.

2.3.2 Comparative study on improving physical management

Liu Guoyong (2013) analyzed the causes of the physical gap between Chinese and Japanese primary and secondary school students, and put forward countermeasures and suggestions to solve the problem. Yang Po (2017) provided a certain reference for the physical health analysis and research of primary and secondary schools in Tianjin, and provided suggestions for the problems found in it. Zhao Tian (2019) provided a basis for the relevant policies of the education department and sports department of Shilou County. Sun Guilong et al. (2020) confirming that there are differences in physical indicators, functional indicators and sports quality indicators to varying degrees.

2.3.3 Research on home-school cooperation countermeasures to improve physique

Building a "home-school integration" intervention system for primary school students' physical health is an important way to implement the guiding ideology of health first and improve physical health (Deng Xiaoxiao, Yu Jinlong, Wei Shuguang, 2019). Sun Huimin (2020) proposed to implement "individualized" family sports operations. Optimize the path, strictly supervise and evaluate scientifically, so that sports homework can improve students' physical health. Xin Mingxian (2021) mentioned that primary school physical education teachers should be based on the sports interests and needs of primary school students. Home and schools should guide students to take the initiative to exercise and exercise happily. Zhao Zhanguo and Zhou Dongliang (2021) mentioned that the concept of physical education homework has been put forward to ensure that students have sufficient exercise time. It is a scientific and effective measure with remarkable effect. Jiang Zengzhen (2022) Compared with the role of the family in promoting the physical health of primary school students, the school is still relatively weak, so the letter will establish a home-school linkage mechanism and evaluation plan to improve the physical health level of primary school students.

2.3.4 Integration and integration of physique and educational Activities Build Form

Zhang Shiyi and Tang Yangyang, (2020) sorted out the hierarchical relationship between the factors affecting physical health development and improved the physical health development evaluation system, including 3 first-level influencing factors and 17 deep-level influencing factors. Huang Jian and Chen Zhiyong (2021) mentioned that turning the originally boring physical test into an event that everyone participated in has improved the enthusiasm of teachers and students in the school. Through a case study of summer homework, Li Dengfeng (2021) found that students' self-learning ability and physical education scores are on the rise. Zhang Guoyan (2021) analyzes the factors affecting students' physical health and solves this problem through the practice of physical education classes and extracurricular physical activities, so as to better improve students' physical health. The practical exploration of the construction and application of the monitoring and intervention system of primary school students based on sports bracelets in Donggang School in Nan'an District, Chongqing from three aspects: system framework, monitoring path and intervention path (Sui Yong, Liao Qingcheng, Zhang Ying, Deng Xiaoxiao, 2021).

To sum up, the relevant research on the physique management of primary school students in China is quite mature. The analysis of the physical health test results of primary school students is relatively in-depth and comprehensive. Scholars have put forward many reasonable intervention countermeasures for the current situation of physique health of primary school students. However, these studies focus on the current situation, problems and improvement strategies of institutional research for primary school students. There are few longitudinal research at different times in the same region where there are many left-behind children. Because Qingxi Primary School in Xiushan County, Chongqing is a school with a century-old historical and cultural heritage, and it is a school integrating urban-rural integration. This school can best reflect the comprehensive characteristics of the physical health of primary school students in Xiushan County, Chongqing, so this study takes students in this school as the object of this study. This study chose the six-year dynamic student physique test of the whole school from Qingxi Primary School in Xiushan, Chongqing from 2015 to 2021 as the object for comparative study. At the same time, a questionnaire on physical health and mental health was formulated according to the actual situation of students, and targeted measures to improve the physique management of students were put forward to improve the physical health level of primary school students in Xiushan .

3. RESEARCH THEORY AND METHODOLOGY

3.1 Research theories and methods

3.1.1 Theory of educational development

Marxist theory the highest level, the great ideal and goal of communism are all-round human development. The connotation of the Marxist theory of the all-round development of human beings includes four aspects, that is, the needs of individuals.

Comprehensive satisfaction, comprehensive improvement of human labor ability, comprehensive enrichment of human social relations, and free and all-round development of human personality (Huo Linyi, 2022). Physical health of primary school students, the problem is the comprehensive development theory of Marxist people. The Primary school fit of education. Primary school the goal of education is to cultivate high quality. Socialist succession Talents, thus promoting the free and all-round development of students, and both their educational objects and subjects are people in the real society. Primary school Education has a common value pursuit with the Marxist theory of all-round development, and there is a consistency of theoretical connotation. Therefore, the Marxist theory of comprehensive development should be used as Primary school Education Physical health research the premise and foundation of.

3.1.2 Student development Exhibition theory

3.1.2.1 "Student development theory" Definition of connotation

"Student development" Defined as "Students in higher education institutions, Keep growing.,Progress, each Square Ways to improve facial ability". He will Selfji's theory can be summarized as "Focus on the all-round development of people" (Florence A·Hamreck, Nancy J·Evans.and John H·Schuh, 2002). Miller and Pierce believe that "Everyone in the development stage faces completing an increasing number of complex development tasks and achieving Self Your own life Eye Standard, obtain personal independence" (Roger B·Winston.Jr·Scott Anchors and Associates Student housing and residential life,1993). Development is a positive growth process in which individuals can integrate into the group, participate in various activities and gain various experiences."(Florence A·Hamreck.Nancy J·Evans, and John H·Schuh , 2002).

Le Qing (2013) believes that: Student development theory is the development and application of human development theory in the field of higher education. It mainly includes a comprehensive theory such as psychological development theory, cognitive structure theory, type theory, human-environment interaction theory and student learning theory.

3.1.2.2 The development of "Student development theory"

Student development theory is 20th century. The reason for the prosperity of student affairs management in colleges and universities in the United States in the 2000s Discuss Today, the model is still an important theoretical and philosophical foundation of education management services for college students in the United States. Student development theory" It is the application and development of human development theory in the field of higher education."(Shi Rong, 2019) The original theoretical basis is "Alternative parenthood" and "Student personnel services". "Alternative parents" It is a description of the model of student management in church schools during the colonial period of North America, which intuitively reflects that schools should replace parents as parents.

Enter 20 Century 30 after the decade, The management of student affairs in colleges and universities in the United States has "Think of students as children with no decision-making ability."(Du Conghui, 2021) "Alternative parenthood", Derivative development into "We should not only protect students' hearts, but also provide professional services for more and more diverse students." Of "Student personnel services" (He Jincai, Wang Jiamei, 2020). On this basis, "Influenced by the development of disciplines such as psychology, philosophy and sociology" In particular, influenced by psychological trends such as humanistic psychology, student personnel management has gradually changed from providing professional services to "Student development "Concept-oriented, with "Achieve students' self-realization and independence" The theory of student development for the goal came into being and has become an important guiding ideology for student affairs in American colleges and universities (Long Xingle, Zhou Xiaohua, 2019) .

The main concepts of student development theory can be summarized into four aspects: First, we should focus on the learning and development of college students, focusing on the intellectual development, physical development, emotional development, career development, social development and spiritual development of college students, so that college students can continuously improve and improve in all aspects of their own literacy. Second, we should combine the growth law of college students and pay attention to how to carry out relevant research on how to promote the development of college students. We should follow the law of college students' development and respect the imbalance, stage and differences of students' individual development. Third, it is emphasized that the quality level of university education depends on the interaction between students and the environment. The school's education environment is crucial to the growth and development of college students. The external environment such as school goals, school size, student community, teacher-student relations, student friendship, etc. The learning environment such as curriculum design and teaching, student development projects and services, extracurricular activities, learning integration, etc. Individual environment, such as mutual recognition and respect among students, individual differences, will affect the learning and development of college students to varying degrees. Fourth, academic learning activities and various non-academic activities play a positive role in promoting the learning and development of college students regardless of in and out of class (Liu Chuan, Xiao Lin, 2018).

Student development theory is a comprehensive theory, which mainly includes four basic types: individual and environment, social psychology, cognition and values, and integrated theory. Among "Individual and environmental theory" Emphasize the interaction between individual students and the university environment. This theory explains how the campus environment of the university affects the development of students, including the development of students' psychosocial, cognitive and values. Comply with Astin1977 Proposed in the year "Input—Environment—Send out" Model, 1984 Nianti Out of "Student participation" Theory. In 1996, Evans etc. Proposed "Sociopsychological theory" it focuses on the individual identification and group identification of students, aiming to describe how students know themselves and understand themselves in their interactions with others and with groups. It should be pointed out that the theory of student development applies to different cultural conditions. The relevant models of student development theory explore the possibility of student development as the philosophical foundation of a career, and systematically answer what college students develop during college, how their development is caused, and how the environment affects their development. It can be seen that the theory of student development well meets the practical needs of improving the quality of talent training in colleges and universities in China. Its understanding of student training goals, the role of the environment on individual development, and the interaction between people are all of direct reference and enlightening significance for promoting the construction of the learning style of colleges and universities in the new era (Wang Fangguo, 2022).

To sum up, it is found that Chinese scholars have made achievements in the application of student development theory to the management of college students, but there is still a lot of room for breakthrough in the research on the management and practical characteristics of primary school students. However, scholars are closed. At "Student development" the definitions are different, but together, they researched what kind of talents should education cultivate? And how to develop talents such a problem. This study selects the theory of student development as the starting point. By analyzing the practical characteristics of physique health management for primary school students in China, combined with the actual situation in China, and guided by the theory of student development, the physical health management model of primary school students in China under the guidance of student development theory is established. This new model can optimize the management institutions and personnel of primary and secondary schools in China, more effectively carry out the physical health management of students, and promote students' learning and development in an all-round way. Theoretical model of student development (Image source: author's own).

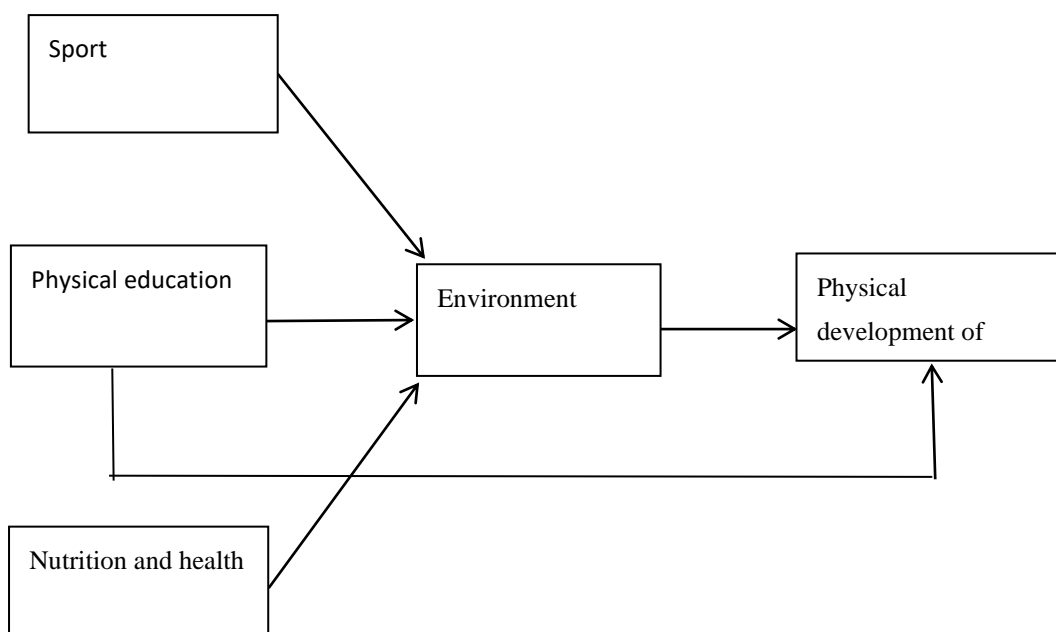


Fig.1. Student models of theoretical development

3.2 Documentation Method

In the research process, this study consults and collects literature on students' physical health in electronic resource databases such as CNKI and Science direct. By reading these materials, it understands the current situation and development trends of primary school students' physical health, ensures the accuracy of the research direction, and paves a good foundation for this research. Using modern retrieval means, through the retrieval of the Ministry of Education, the Chongqing Municipal Education Commission, the official website of the Chongqing Government and other platforms, it collects guiding documents, systems and regulations on promoting the physical health of primary and secondary school students, as well as TV, the latest news reports, social comments and some research results, and carries out a large number of generalization and integration, laying a policy foundation for this research.

3.3 Interview Law

According to the needs of the research, this study interviewed primary school teachers, 33 head teacher teachers and 12 physical education teachers face to face. Understand the current situation of students' physical health in this school, the problems existing in students' physique, the factors affecting students' physique, the relevant policies and implementation of physique management, and suggestions for raising students' physique.

3.4 Data analysis method

Establish a detailed and high-quality database of collected student physical examination data and interviews with students and parents, and use SPSS statistical software to process the data. This analysis data is a physical analysis of the annual dynamic physical examination report of students of Qingxi Primary School in Xiushan County, Chongqing from 2015 to 2021. After screening the information integrity of the student physical examination report, the information of 15 transferred students and 13 interceptors were incomplete, so 28 students with incomplete information was excluded and the physical examination reports of the remaining students were analyzed. All the physical examination reports in this analysis were examined by professional doctors of Chongqing Xiushan County Traditional Chinese Medicine Hospital. The data is true and reliable. Whether there are left-behind children, date of birth, age and other personal information in the student information of Qingxi Primary School, Xiushan County, Chongqing from 2015 to 2021, with the consent of the school leaders, please check the supplementary records in the school's Academic Affairs Office. Relevant information such as parents' occupations and whether they stay behind

in the student information of Qingxi Primary School in Xiushan County, Chongqing City were obtained by a questionnaire survey after obtaining the consent of parents and schools.

3.5 Questionnaire design and hypothesis

3.5.1 Design of questionnaires

Through reading the literature, the author found that the factors affecting the physical health of primary school students are generally affected by schools, teachers, families, society, students' sports, mental health status, etc. The physical fitness test data collected by the author are the physical test dynamic data of a total of 8304 students in Qingxi Primary School, Xiushan County, Chongqing from 2015 to 2021. After collecting students' physical health test data, this study asked students to make two questionnaires after obtaining the consent of school leaders and parents: one is a questionnaire on physical health survey, and the other on the mental health status of primary school students. For the design of the physical health questionnaire, the author refers to Yu Liubin's "Relevance Analysis of the Physical Fitness and Family Environment of Primary and Secondary School Students in De'an County". From the aspects of family situation, parents' occupation, parents' education level, whether they are single-parent families, only children, and parents' monthly income, according to the actual situation of the large number of left-behind children in Qingxi Primary School in Xiushan County, the author has added two points worth paying attention to whether there are left-behind children and after-school sports services. The physical health questionnaire has two parts. The first part designs five dimensions, namely: students' attitude towards physical exercise, students' family structure, family attitude towards students' physical exercise, the impact of schools on students' physical exercise, the impact of after-school services on students' physical health, and the second part is the basic situation.

In view of the mental health status of students, the author learns from SCL-90.°The 90 questions of the mental health test designed the questionnaire from nine dimensions (somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, horror, paranoia, psychosis).

3.5.2 Presentation of hypotheses

Based on the above literature review and theoretical basis, the author puts forward the following assumptions:

1. H1: Exercise can affect the physical health of primary school students
2. H2: The vision of primary school students will become weaker and weaker with the improvement of grades.
3. H3: The family environment will affect the healthy physical development of primary school students
4. H4: Nutrition has an impact on the healthy physical development of primary school students
5. H5 Mental health has an impact on the physical and healthy development of primary school students.

4. RESULTS AND ANALYSIS

4.1 President's Physical Health Test for Students in Qingxi Primary School, Xiushan County, Chongqing, 2015-2021

4.1.1 Test compliance rate statistics for 2015-2021

The test results of Qingxi Primary School in Xiushan , Chongqing can be brought into the standard to find the score. A total of 100 points, the rating is: excellent is 90 points or above, 80.0-89.9 points are good, the score is 60.0-79.9, and the score is less than 59.9 points are bad.

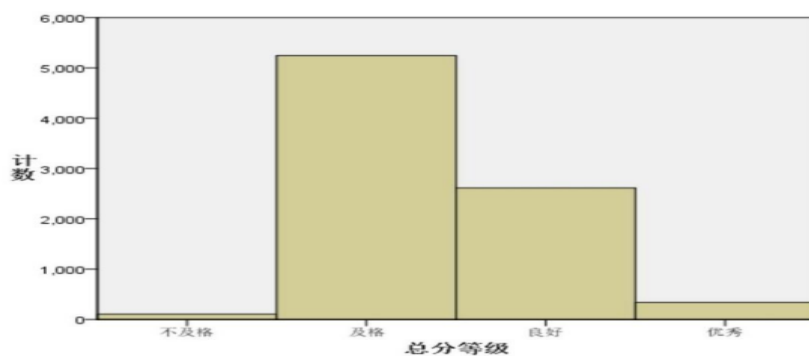


Fig. 2 Statistics on the compliance rate of student test level in 2015-2021

From the above figure, it can be seen that students' physical health is mainly distributed at the two levels of pass and good, and the failure rate and excellence account for less.

4.2 BMI Index

The BMI index is a figure obtained by dividing the number of kilograms of weight by the square meters of height. It is a common international standard to measure fatness and weight and human health. This paper makes a statistical analysis of the BMI of students of Qingxi Primary School in Xiushan County, Chongqing from 2015 to 2021, calculates the proportion of different weight levels of male and female students every year, and makes a comparative analysis.

Table 1 BMI grade and gender cross table

	Frequency	Percentage	Effective percentage	Cumulative percentage
Effective Be overloaded	152	1.8	1.8	1.8
Fat	21	.3	.3	2.1
Very obese	Ten	.1	.1	2.2
Malnutrition	6867	82.7	82.7	84.9
Normal	1254	15.1	15.1	100.0
Amount to	8304	100.0	100.0	

Through the above three charts, it can be clearly reflected that in the student BMI index, the number of overweight students in the BMI index accounts for 2.2%, the number of students with normal BMI index accounts for 15.10%, and the proportion of students with insufficient nutrition and thin body weight accounts for 82.69%. The phenomenon of insufficient nutrition and thin size of students is relatively serious. What is the cause of this phenomenon? The following research will continue to explore this issue in depth.

4.3 Correlation analysis of students' physical health

4.3.1 H1: Exercise can affect the physical health of primary school Students

Table 2 Correlation analysis of physical fitness indicators and physical health status of primary school students

		Physical health status
Lung capacity	Correlation factor	0.290**
	Parking lot Value	0.000
50 meters	Correlation factor	-0.491**
	Parking lot Value	0.000
One minute sit-ups	Correlation factor	0.572**
	Parking lot Value	0.000
One minute skipping rope	Correlation factor	0.479**
	Parking lot Value	0.000
Anterior flexion of the sitting body	Correlation factor	0.542**
	Parking lot Value	0.000
50 meters×8 round trip	Correlation factor	-0.621**
	Parking lot Value	0.000

* p<0.05 ** p<0.01

As can be seen from the above table, relevant analysis is used to study. Physical health status of students separate and lung capacity, 50 meters running, one minute sit-up, one-minute rope skipping, sitting forward flexion, 50 meters×8 round-trip running the correlation between a total of 6 items, and the Pearson correlation coefficient is used to indicate the strength of the correlation.

The above six items are closely related to students' physical exercise. The longer and frequency of physical exercise, the better the student's physical health, which proves that hypothesis 1 is true.

4.3.2 H2: The vision of primary school students will become weaker and weaker with the improvement of grades.

Through the use of SPSS software, the following data are obtained by analyzing the correlation between vision and physique, grade, residual situation, only child, single-parent family, and parental education:

Table 3 Correlation analysis of visual acuity and environment

		Naked eyesight in the left eye	Naked eyesight in the right eye
Grade	Correlation factor	-0.159**	-0.171**
	Parking lot Value	0	0
Total score	Correlation factor	0.046	0.03
	Parking lot Value	0.084	0.256
2. Your gender is (please check)	Correlation factor	0.005	-0.011
	Parking lot Value	0.857	0.698

3. Are you an only child?	Correlation factor	-0.032	-0.038
	Parking lot Value	0.286	0.195
4. Are you left-behind children? (Children whose parents work outside.)	Correlation factor	-0.012	-0.015
	Parking lot Value	0.647	0.564
5. Do you live in a single-parent family? The parents are divorced, or one of the parents is no longer there.)	Correlation factor	0	0.004
	Parking lot Value	0.994	0.891
16. What is your mother's education level?	Correlation factor	0.080**	0.066*
	Parking lot Value	0.007	0.026
15. What is your father's education level?	Correlation factor	0.044	0.048
	Parking lot Value	0.134	0.104
* p<0.05 ** p<0.01			

From the above figure, it can be concluded that there is no correlation between students' visual acuity and physical condition, gender, whether they are single-parent families, whether they stay behind, and their father's education level. There was a positive correlation between students' visual acuity and mother's education level. Student visual acuity was negatively correlated with grade level, with higher grade levels and weaker student vision, and the second hypothesis in the study holds.

4.3.3 H3: The family environment will affect the physical and healthy development of primary school students

Environment is a relatively broad concept. In this study, it can be understood as the family environment, school environment and social environment as primary school students grow up. In the questionnaire on students' physical health, nine questions about the dimension of the family environment are designed to analyze the correlation between students' physical health and several factors in the student's growth environment through SPSS software, including whether they are only children, whether they are left-behind children, whether they are single-parent families, father's education level, maternal education level, sports homework, sports expenses, home exercise time, etc. In this study, the assumptions are verified through SPSS software correlation analysis

Table4 Correlation analysis of the family environment and the physical health status of primary school students

		Physical health status
3. Are you an only child?	Correlation factor	0.028
	Parking lot Value	0.349
4. Are you left-behind children? Children whose parents work outside.)	Correlation factor	0.026
	Parking lot Value	0.334
5. Do you live in a single-parent family? The parents are divorced, or one of the parents is no longer there.)	Correlation factor	0.043
	Parking lot Value	0.15

11. How long do you exercise at home for a day?	Correlation factor	0.035
	Parking lot Value	0.232
15. What is your father's education level?	Correlation factor	-0.026
	Parking lot Value	0.384
18. How is your family's monthly sports expenditure?	Correlation factor	0.016
	Parking lot Value	0.589
22. How do your parents accompany you to watch sports competitions every week?	Correlation factor	-0.039
	Parking lot Value	0.193
19. Family's attitude towards physical exercise What is the attitude of parents towards you going out to exercise?	Correlation factor	-0.059*
	Parking lot Value	0.046
16. What is your mother's education level?	Correlation factor	-0.078**
	Parking lot Value	0.008
* p<0.05 ** p<0.01		

As shown in the figure, the physical health of Qingxi Primary School students had no correlation with left-behind, only child, single-parent families, father's education level, sports expenditure, the number of times their parents watched sports programs, and the length of exercise at home. However, physical health status was negatively correlated with maternal literacy. Therefore, it shows that there is a significant negative correlation between physical health status and family attitude towards physical exercise.

After data analysis and verification, it is concluded that H3: The family environment will affect the physical health of primary school students, which is partially established. In this study, the mother's education level and parents' attitudes towards physical exercise in the family environment are negatively correlated with the physical health of primary school students.

4.3.4 H4: Nutrition has an impact on the physical and healthy development of primary school students

As mentioned in the previous study, BMI is the number of students 'weight divided by the square of height BMI= weight (kg) / height 2 (m). The number of students with malnutrition is 82.69%. What is the relationship between students' height, weight and BMI index? This study will continue to be explored.

Table 5 Correlation analysis between nutrition index and students' physical health

		Physical health level
Body mass index	Correlation factor	-0.204**
	Parking lot Value	0.000
Height (m)	Correlation factor	0.106**
	Parking lot Value	0.000
Weight (kg)	Correlation factor	-0.075**
	Parking lot Value	0.005

* p<0.05 ** p<0.01

As can be seen from the above table, correlation analysis is used to study the correlation between the total score and BMI, height (meter) and weight (kg) respectively, and the Pearson correlation coefficient is used to indicate the strength of the correlation relationship. Specific analysis can be seen: Physical health status of students The correlation coefficient value with BMI is -0.204, and it shows a significant level of 0.01, which shows that Clear physical health status There is a significant negative correlation with BMI. Physical health status The correlation coefficient between the height (meter) is 0.106 and shows a significant level of 0.01, which shows that Physical health status There is a significant positive correlation with height (meters). Physical health status The correlation coefficient between and weight (kg) is -0.075 and shows a significant level of 0.01, which shows that Physical health status There is a significant negative correlation between weight (kg).

The research results confirm that H4 nutrition has an impact on the physical health development of primary school students.

4.3.5 H5 Mental health has an impact on the physical and healthy development of primary school students

Table 6 Correlation analysis of mental health indicators and physical health status of primary school students

Somatization	Correlation factor	-0.054
	Parking lot Value	0.287
Obsessive symptoms	Correlation factor	-0.041
	Parking lot Value	0.420
Sensitive interpersonal relationships	Correlation factor	-0.047
	Parking lot Value	0.356
Depressed	Correlation factor	-0.074
	Parking lot Value	0.146
Worried	Correlation factor	-0.049
	Parking lot Value	0.339
Hostile	Correlation factor	-0.080
	Parking lot Value	0.114
Terrifying	Correlation factor	-0.045
	Parking lot Value	0.375

Stubbornly biased	Correlation factor	-0.004
	Parking lot Value	0.942
Psychotic	Correlation factor	-0.058
	Parking lot Value	0.254
Sleep and diet	Correlation factor	-0.044

* p<0.05 ** p<0.01

As can be seen from the above table, using relevant Nature Analyze to study Physical condition of students Separately and 10 dimensions of the mental health questionnaire: somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, horror, paranoia, psychosis, sleep and diet, Total 10 Nape of the neck And physical health The correlation between them, and the Pearson correlation coefficient is used to indicate the strength of the correlation.

To sum up, there is no correlation between the physical health status of students in Qingxi Primary School and the 10 dimensions of students' mental health. It is assumed that H5 mental health has no impact on the physical health development of primary school students.

5. CHAPTER 5 RESEARCH CONCLUSIONS AND MANAGEMENT STRATEGIES

5.1 Conclusion of the study

This study is based on the comparative analysis of the overall physical health test of primary school students in grades 1-6 in Xiushan County, Chongqing from 2015 to 2021 and the correlation study of physical health status. The statistical analysis results are as follows:

5.1.1 Overall trends in achievement

From 2015 to 2021, the total scores of the physical fitness test of students in grades 1-6 of Qingxi Primary School were mainly concentrated at the two levels of pass and good.

5.1.2 Physical morphology

The proportion of students with under nutrition and thin body weight accounts for 82.69%. The phenomenon of under nutrition and thin size of students is relatively serious.

5.1.3 Relevance analysis

Utilize Perason Related analysis to study Physical health status of students Separate and lung capacity, 50 meters running, one minute sit-up, one-minute rope skipping, sitting forward flexion, 50 meters×8 round-trip running the correlation between a total of 6 items, and the Pearson correlation coefficient is used to indicate the strength of the correlation. The results show that the above six items are closely related to students' physical exercise. The longer the student's physical exercise, the more times, the better the student's physical health, which proves that hypothesis 1 is true. Hypothesis 2, the vision of primary school students will become weaker and weaker as the grade increases. H3: The family environment will affect the physical and healthy development of primary school students, which is partially established. In this study, the mother's education level and parents' attitudes towards physical exercise in the family environment are negatively correlated with the physical health of primary school students. H4: Nutrition has an impact on the healthy physical development of primary school students. H5: Mental health has no impact on the physical and healthy development of primary school students.

5.2 Research Restrictions

The number of samples in this study involves the six-year span from 2015 to 2021, which is relatively long in terms of time, but the area of the sample involved is a area in Qingxi, Xiushan. Chongqing. If time and energy permit, attention should be paid to the physical health status of primary school students in 11 districts of Xiushan County, which is more convincing.

5.3 Suggestions on physical health management strategies for primary school students

According to the previous Research and analysis, 2015-2021 Space between Students of Qingxi Primary School, Xiushan County, Chongqing Constitution Healthy The level of development shows the overall upward trend is a gratifying side, but in rope skipping, 50× There are still some gaps in the round-trip running project and the student BMI index, which still needs to be improved, among which Affect Small The most important factor in the healthy physical development of students is Students exercise for a long time. Further development strategies should also continue to be adopted to comprehensively upgrade. Small in Xiushan County, Chongqing The level of physical and healthy development of students, and Physical education teaching is also a physical education work in schools "File leader". Based on this, this study formulates a series of measures to improve students' physical health from the perspective of management, so as to help improve students' physical health and promote the management of students' physical health in schools.

5.3.1 Raise sports awareness and increase sports facilities

Interest is the best teacher. Sports activities strive to be colorful and diverse, carry out sports and fitness activities that students like to see, hand over the initiative of sports activities to students, and gradually Stimulate students' interest in actively participating in sports classes. For example, low-level students like climbing programs, and for this activity, they are equipped with climbing equipment. Create a physical exercise atmosphere for students. First of all, we should carry out traditional ethnic physical education for students and create characteristic sports activities. For example: the popular promotion of lantern exercises and hand swing dance in Xiushan. It lays a solid foundation for lifelong sports, and designs and carries out various forms, interesting and has its own. Nation The characteristic sports activities set off a strong atmosphere of physical exercise throughout the school.

Let students love sports, first of all good sports facilities and equipment are guaranteed. Equipped with sports equipment, standardize the use system of equipment, and accelerate the development of sports infrastructure suitable for students' age characteristics. Ensure the safety of the venue, ensure that there are enough venues for children to exercise, and create a relaxed sports environment, so that primary school students are willing to participate in sports. Governments at all levels and education administrations in terms of human, material and financial resources when formulating relevant policies and work plans and contents. Should do Increase right. District of Xiushan County, Chongqing The tilt and security of the school.

5.3.2 Improve sports efficiency and strengthen sports classroom management

Guard the main position of the sports class. Students' sports interests need to be cultivated by teachers. Physical education is the main position of students' sports. Physical education teachers should guard their main position, do not easily let language teachers crowd physical education classes, advocate indoor sports skills explanation classes on rainy days, improve the excellence of the classroom for 40 minutes, establish students' self-confidence in sports, and cultivate students' interest in sports. After-school service expands students' physical exercise activities. According to the answers to the students' questionnaire, low-level students like climbing sports, middle-level students like ball games, and high-level students like physical sports. After-school sports should be targeted, which should not only improve students' interest, but also achieve the purpose of physical exercise.

Formulate formative evaluation, so that students can form the habit of sports punching in, and lay the foundation for students' lifelong physical education. Promotional activities: campus large screen, blackboard newspaper, class QQ, WeChat, ingding group push activities to promote sports health management knowledge. Responsible for education Part The department can organize it regularly. District of Xiushan County, Chongqing The school's managers and physical education teachers engaged in school sports work carry out special seminars and training, and actively explore problems and confusion in the process of physical education work. According to Physical education class Study specific solutions to existing problems, formulate operational measures, provide guidance, and provide scientific guidance, Over all Raise Small in Xiushan County, Chongqing Student Taxi The level of physical health development.

5.3.3 Combine home and school to expand the long-term mechanism of student sports

At the family level, improve parental awareness and home-school cooperation to promote the healthy physical development of students. Carry out targeted lectures and education for parents, and use the digital home-school learning platform to help parents improve their management awareness, start from the student level, meet the

characteristics of students, and truly be a parent who understands their children. Use the installment courses of the Sankuan education platform to exchange problems in the process of children's growth. Home and schools pay attention to children's health, share excellent parenting concepts and knowledge, and improve parents' awareness of managing their children's bodies. Parents should try their best to set aside regular weekly time to exercise with their children, help them formulate exercise plans, and supervise their implementation.

At the school level, in terms of policy formulation, we should take students' physical health as the starting point. Teachers should do a good job in demonstration and leadership, and increase inter-class training. It is recommended that students can assign appropriate physical education homework, such as rope skipping, sit-up and running exercises, cultivate students' awareness of exercise, promote students' healthy development, and strive to realize the fun of teaching. Scientificity and other characteristics and styles of physical education classroom teaching mode, in school education work, improve all students' physical education knowledge and skills, and establish the idea of lifelong physical education.

In the process of physical education teaching, physical education teachers should optimize and innovate teaching methods and means. For example, in the process of developing quality teaching, physical education teachers should use more teaching methods and means of physical education games. "Train races", "Squat on each other's backs" Other cooperative games develop lower limb strength; "Relay Run", "Load-bearing relay" "Cooperative running" The development speed and quality of the game; "Variable speed running", "Run the steps continuously." and other practice methods to develop endurance quality; change the single and boring practice mode through the teaching method of sports games, eliminate students' resistance and fear, and improve students' participation and enthusiasm in practice (Ma Jie, 2022).

Strengthen Xiushan County, Chongqing Build and train physical education teachers, improve the treatment of physical education teachers, and let physical education teachers enjoy the same status as teachers in other disciplines. There are add positions in promotion. Strengthen the supervision and assessment of physical education teaching. While protecting the rights and interests of physical education teachers, we should also compact our responsibilities and improve them through scientific and effective physical education classroom teaching. Small in Xiushan, Chongqing Physical health level of students. At the same time, It should also be strengthened Constitution Health knowledge training and safety education, actively develop sports injury courses, popularize emergency methods for common sports injury post-treatment, and avoid improper injury handling, causing secondary injury or affecting injury recovery, so that Small Students have psychological shadows that affect their motivation to participate in physical exercise.

5.3.4 Improve nutrition, improve students' immunity, and promote students' healthy physical development

According to the analysis of the student BMI index, 82.69% of primary school students are thin and malnourished. Children are the main force in the construction of the motherland. Their health affects the future of the motherland. They should be highly valued by relevant departments and supported from the national policy level.

For students' breakfast and lunch, they should increase investment in terms of funds, so that every meal of primary school students can eat healthily and nutritionally and improve their physical health. Because there are a lot of left-behind children in this study, most of them live with their grandparents. Children have developed the phenomenon of skipping. Breakfast on time and skipping breakfast on time. The breakfast money given by the family is used to buy junk food such as roadside stalls and spicy strips. In the long run, children's health will be affected, resulting in malnutrition. Schools make rules that students are not allowed to buy junk food and snacks, and parents should control students' pocket money. The implementation of nutritious lunches has brought many benefits to primary school students to a certain extent, allowing students to eat delicious and nutritious food at school. Schools are encouraged to offer breakfast and distribute eggs and milk to students at breakfast. Chinese vegetables and meat should be suitable for students' tastes as much as possible, aiming at students to like and enjoy eating.

5.3.5 Pay attention to students' vision and establish a small and high-quality database of classes

Establish a student growth class Top-quality Database. The contents of the student growth class database include: Indicators of students' physical health, students' vision changes, Student's family background, whether he is left behind, student's physical examination, student's mental health, Academic performance, Social relations, Performance in school, etc., this High-quality micro-classes Mature Data base All the time from the students Primary school Admission lasts until the university or Higher level, management of schools and teachers Manage students' learning and physical health. It plays a guiding role.

Strengthen health education, and continuously improve students' knowledge of healthy eye use through parents' eye health education to students. Supervise the use time of mobile phones and ensure that monitoring is in place at any time. In this study, there were vision statistics of more than 1,400 students in school in 2021, including 233 myopia students, accounting for 16.6% of the myopia rate, and a total of 269 students in the sixth grade, including 152 myopia students, with a myopia rate of 56.5%. Exercise intervention is carried out for students with vision health problems. According to the specific situation of the school, in order to alleviate and prevent students' myopia, it is advocated to do eye exercises twice a day. The first eye exercises is in the inter-class exercise. It is recommended to add another eye exercise after the fifth class in the afternoon to slow down students' eye fatigue.

Use less multimedia to free your eyes. With the development of society and the progress of science and technology, every class of teachers is closely related to multimedia, and the impact on students' eyesight should not be underestimated. There are 33 classes in Qingxi Primary School in Xiushan County, Chongqing. Each class is equipped with computers and display stands, and teachers in each class will use multimedia teaching. In order to protect students' eyesight, teachers are encouraged to go to the original classroom and liberate students' eyes. In addition, by combining school sports resources and special sports characteristics of on-campus sports, focusing on students' vision status, and building an intervention mechanism that combines sports intervention, health habits and food nutrition can be built to ensure students' visual health.

In short, Harmonious Family education, school education and social education organically combine society, school, family and individual students. Through a variety of publicity and education methods, students can be effectively promoted to actively participate in physical exercise. Stand "Health first" and "Lifelong body Give birth to" thoughts of Concept, so as to improve students' physical health.

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Educational Troubles of Immigrant Students during the Recent Global Pandemic

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Abstract

The phenomenon of migration, which has existed with the history of humanity, is an ongoing process in almost every part of the world. Migration, which expresses the process of voluntary or compulsory displacement of people for many reasons such as social, economic and security, has an extremely dynamic structure. Migration, which can occur for many reasons, can also occur due to war, economical, psychosocial and political reasons. The Syrian immigrants, having moved to Turkey due to the Civil War in their country experienced some educational troubles during the recent pandemic as those in the other countries. We tried to determine the educational troubles of immigrant students in their new destination during the recent Pandemic. We researched some domestic and international papers and reports to find out the problems of immigrant students in terms of education and their access to distance education during the recent Pandemic. We have the conclusion that immigrant students had some troubles in education such as access to distance education, having technological materials such as computer and internet access necessary for education and educational environment due to closure during the Pandemic.

Keywords: Educational management, Immigrant education, Educational troubles, Education during Pandemic

1. INTRODUCTION

Due to its geographical location, Turkey has faced large-scale migration movements throughout history, including mass asylum movements. With the mass migration influx from Syria after 2011, according to official figures, there are 4.100.000 Syrians, 1.500.000 immigrants and refugees from Afghanistan, Iraq and other countries as of 2022 in Turkey. The number of studies on migration, which is one of the most important phenomena affecting millions of people on a global scale, especially in Turkey, is increasing day by day, and many actors are active in the field of practice and knowledge production.

After the start of the COVID-19 pandemic and the first case in Turkey, important regulations came to the fore in the field of education, as in every other field, and many changes and regulations were implemented by the Ministry of National Education in the process. In March 2020, after the face-to-face training was suspended for a while at the first stage, the distance education system was put into operation through the EBA under the coordination of the Ministry. Depending on the course of the pandemic throughout the country, in the first year, decisions were taken and put into practice for different education levels from time to time, both by the Council of Ministers at the central level, by the Governorships and Provincial Pandemic Boards. While some levels completely transitioned to the distance education system, some levels continued face-to-face education; in some cases, a hybrid model was advanced. Finally, according to the measures announced on April 13, 2021, with the exception of 8th and 12th grades, primary, secondary and high school levels were completely switched to distance education. It was

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announced that face-to-face education will continue in pre-school. It was also announced by the relevant authorities that there may be changes in practice depending on the course of the epidemic.

It is known that before the pandemic, refugee children had problems in accessing education due to language problems, lack of knowledge, and socioeconomic difficulties. With the pandemic, it is observed that these difficulties have deepened for many refugee families. According to the study, the main reason for children to continue education only face-to-face is the inability to access distance education due to the inadequacy of communication tools. In addition to the lack of technical equipment, the barriers to accessing distance education are listed as the language problem, lack of knowledge on using EBA, the lack of suitable physical environment to follow the lessons at home, and the inability of children to communicate with their teachers and school. These results show that the socio-economic difficulties and language problems that refugee children were already facing before the pandemic continued during the pandemic period.

2. THE REPORTS BY NATIONAL AND INTERNATIONAL SOURCES

The “Sectoral Analysis of the Effects of the Covid-19 Epidemic on Refugees in Turkey” report published by the Association for Solidarity with Asylum Seekers and Migrants (SGDD-ASAM) states that 70% of immigrant and refugee children enrolled in school in pre-pandemic period are still enrolled in school and 48% of children enrolled in school could not benefit from distance education. More than half of the families of children who have difficulties in participating in distance education stated the inadequacy of technical facilities such as television and computers as the reason for not benefiting from distance education.

While 64% of the children included in the study carried out by Kızılay in 17 provinces had television and internet at home, only 2% did not have television and internet. Technical deficiencies are at the forefront of the difficulties experienced by the children who follow the courses on television and smart phones. In the report, it is stated that the children are not able to listen to the lessons from time to time due to technical difficulties such as the old/small television, the connection signal of the internet according to the places where the residence is located, and the internet speed/disconnection problems. Again, in the report of the Kızılay, it is seen that 32% of the children who do not follow the lessons cannot follow the lessons due to technical deficiencies such as television, internet, smart phone, while it is seen that 9% of them cannot follow the lessons due to the language barrier. It was stated by their families that 8% of the children who do not follow the courses have lack of technical knowledge about EBA access and they have problems in terms of obtaining passwords and syllabus.

In the study carried out by Save the Children in Istanbul and covering 1051 children, it was observed that 66% of school-registered Syrian children and 86% of school-registered Afghan children switched to distance/online education via television or mobile application. It was revealed that 73% of Afghan families found these regulations productive for their children, while 40% of Syrian families found these regulations productive for their children.

With the declaration of a pandemic by the World Health Organization (WHO) after the coronavirus COVID-19 outbreak, formal education was suspended in Turkey within the scope of the measures taken, and distance education was started. While two years are behind in distance education, the Ministry of National Education (MEB) announced that face-to-face education will continue two days a week in the second semester of the 2020-2021 academic year, and distance education will continue on the other days. However, the distance education process that had to be experienced further deepened the “digital gap” and existing inequalities (Küçüksen and Sayın, 2020). As of 2022, face-to-face education has started, but the negative effects of the two-year pandemic process on refugee and migrant students have begun to be observed very closely.

The United Nations High Commissioner for Refugees (UNHCR) pointed out in its report that half of the refugee students in the world were cut off from education during the pandemic process. The report emphasized that there is an even more serious danger especially for refugee girls. In the report, which stated that refugee girls' access to education is at a lower level than boys, it was noted that when girls arrive at secondary education, school enrollment rates are reduced by half compared to boys. UNHCR estimates that half of refugee girls in secondary education will not be back in school when schools reopen. The separation of refugee students from education life also strengthens the possibility of their involvement in working life due to the economic losses during the pandemic process (Baltalı, Hüsünbeyi, Aydın, Akar, Köprülü and Doğan, 2021).

In the reports, it has been determined that the most common barriers to accessing distance education services during the pandemic process are language barrier, lack of television, internet access, lack of technical equipment such as smart phone, computer, tablet, home environment not suitable for regular education and lack of information about distance education services. . Reports revealed that more than half of refugee children have access to

television and smartphones and are able to follow lessons online. However, it has been determined that nearly half of the refugee children do not have sufficient technical equipment at home, they live in families that do not have sufficient knowledge of using the systems, they have difficulty in following the lessons and they cannot benefit from distance education. It has been seen that the biggest problems experienced by children who can follow online courses are old or small television and internet speed problems.

In the light of the findings in national and international reports, it has been determined that the majority of the refugees obtained information about the Covid-19 epidemic primarily from television and then from other media. It has been determined that most of the refugees face job loss with the pandemic process. It has been revealed that they have difficulty in meeting their basic needs such as rent, food, diapers and baby food, milk and clothes, as their expenditures and payments are affected. It has been revealed that refugees in particular have difficulties in meeting their basic hygiene needs and have difficulties in maintaining their hygiene practices and taking necessary health measures. It has been determined that the curfews in Turkey, especially during the pandemic process, cause families with disabled and elderly individuals to have difficulties in accessing markets as well (Küçükksen and Sayın, 2020).

The reports indicate that the main obstacles to accessing distance education in the Covid-19 period are lack of equipment such as television, internet access, smartphone, computer, tablet, language barrier, lack of information about distance education, crowded home environment. It has been revealed that the biggest problems experienced by refugee children, who have access to television and smart phones and can follow the lessons online, are problems such as old or small television and internet speed problems.

Although there are very limited studies addressing vulnerabilities and psychosocial well-being such as social violence, neglect and abuse, disability and chronic illness, in national and international reports, it has been determined that negative coping methods such as physical, economic and psychological violence, increase in close partner violence, exploitation, sexual abuse and early marriage were used during the pandemic process. It has been determined that the existing gender inequalities in particular have deepened with the Covid-19 epidemic, and the domestic labor of women has increased significantly with adverse health and economic conditions. This situation reveals the necessity of conducting more detailed studies with samples with different sensitivities and risks in our country and in the world.

Undoubtedly, one of the groups most affected by the measures taken and restrictions imposed within the scope of the pandemic is the individuals displaced due to war, conflict and humanitarian crises. Refugees face more risks and difficulties compared to the general population during the global epidemic and similar processes due to their psychosocial support needs and difficulties in accessing health services. In particular, difficulties in accessing information due to language barriers, exacerbation of current difficulties in accessing livelihoods and financial difficulties, additional health risks of living and working together, deficiencies in housing, food and hygiene conditions, and access to basic rights and services, interruptions and physical barriers to accessing facilities, especially health care units, are among the main reasons for these sensitivities.

In the process of combating and responding to the Covid-19 epidemic, it is essential to develop quality actions and intervention tools that will respond to the sensitivities and needs of refugees, to global combat goals, human rights and international standards.

3. ACTIONS NECESSARY FOR THE NEEDS OF REFUGEE STUDENTS

The national and international institutions and organizations should prevent the refugee children at school age from leaving behind the education. Their duties should include;

- Establishing partnerships based on provinces by reaching out to stakeholders from different segments such as municipalities, Provincial Directorates of Agriculture and Forestry, Chambers of Industry and Commerce and the private sector, in order to find solutions to the problems of children, such as malnutrition, access to healthy food, and access to education and educational equipment,
- Establishing new collaborations for access to livelihoods as well as social assistance and support provided to ensure and facilitate access to basic needs for asylum-seeking families,
- Organizing activities focused on the development of age- and culture-sensitive coping mechanisms in order to enable children to cope with their negative emotional states,
- Developing and strengthening existing policies and establishing possible collaborations to remove barriers to children's access to health services,
- Allocating additional financial resources to systematically monitor evaluate and report changing conditions and needs to relevant stakeholders by conducting regular field surveys in pilot provinces to be determined depending on the course of the pandemic process,

- Reviewing the current policies and practices in the light of the difficulties and needs brought about by an extraordinary process such as the pandemic in order to support both the access to the right to education and the psychosocial well-being of refugee children,
 - Conducting informative studies for children and parents on the support mechanisms that children can apply for their psychosocial well-being,
 - Establishing psychosocial support mechanisms that families may need within the scope of COVID-19 pandemic measures, in order to ensure the continuity of intercultural interaction, to support social cohesion, and to carry out studies for children to continue their education life,
 - Developing various mechanisms and organizing awareness-raising actions and activities for families in order to strengthen the cooperation between teachers, guidance services and families in schools, Public Education Centers and other educational institutions in the cities with a high refugee population,
 - Carrying out improvement works to remove the barriers to their access to these mechanisms and establishing a hotline for parents and children in schools, with the support of guidance services,
 - Informing asylum seeker families with written and visual materials about the institutions and organizations that should be contacted if children are exposed to bullying in the online education environment,
 - Presenting education modules suitable for children's age and development through different online platforms in order to improve children's Turkish language skills and to support school courses,
 - Dissemination of public service announcements in order to remove the obstacles to families and children's access to support mechanisms, except for content related to EBA TV and other educational tools,
 - Carrying out information and awareness-raising activities especially for refugees,
 - Preparing written brochures and posters by educational institutions on this subject,
 - Carrying out the necessary work in cooperation with community leaders, school administrations, headmen and associations,
 - Increasing the social cohesion of refugee children after the pandemic, as the communication of children who cannot access distance education with school, teachers and peers is negatively affected,
 - Conducting social cohesion studies for the re-establishment of peer-to-peer communication,
 - Establishing possible and new collaborations to create additional financial resources for children and their families at risk of dropping out of school due to the pandemic, and maintaining and strengthening existing policies and cooperation,
 - Conducting information seminars for refugee families on hygiene rules and other issues that children should pay attention to at school, regarding the change in the education model and the transition to face-to-face education in some periods within the scope of normalization plans.

4. CONCLUSION

Ensuring that all school-age refugee children continue their education should be our priority. As we brought to the agenda in the pre-pandemic period, it is of great importance that refugee children who continue their education are supported in their mother tongue so that they can access the same opportunities as their peers and increase their academic success. For this purpose, it is necessary to carry out studies to ensure that more children can access the educational materials that have already been prepared, and to produce new educational materials.

In addition, in order to eliminate the inequalities that become more evident in the distance education period, it is necessary to eliminate the lack of technical equipment such as the internet, television, tablet and computer of refugee children. Informing teachers with refugee students in their classrooms about the special needs of children, as well as providing psychosocial support for refugee students' socio-economic problems and adaptation problems are of paramount importance. In some studies conducted with teachers with refugee children in their classrooms, teachers stated that they do not feel competent in the education of refugee children, that they do not organize their educational environments in line with the needs of refugee children, and that they do not think that the curriculum is sufficient for the education of refugee children. In addition, they stated that refugee children should be supported in terms of learning Turkish and their participation in school support courses should be ensured in order to solve the integration problems of refugee children (Baltalı et al, 2021).

While carrying out these studies, it is necessary to look at the concept of integration from a holistic perspective, and to work on the adaptation not only of refugee children to school, but also of teachers and other students in the classrooms of refugee children. For this purpose, psychosocial support studies on adjustment in these classes will be of great benefit.

The economic difficulties experienced by their parents are at the forefront of the factors that cause refugee children to leave their education life. The majority of the refugee population in Turkey live in cities and in adverse conditions. One of the groups most affected by the Covid-19 process has been the refugee population. According to the results of many studies, while the majority of refugees had difficulty in spending rent and food expenses in the pre-pandemic period, there were also refugees who lost their jobs and income with the pandemic. Due to the economic difficulties experienced by their parents, many refugee children are away from education because they have to work or help with domestic chores in order to contribute to the family income. For this reason, it is important for parents to participate in working life, to have a regular income and to be supported socioeconomically in order for children to continue their education. In addition, parents have almost no opportunity to help their children with their studies due to the language barrier. Children are trying to continue their education without any adults who can help with their studies.

Although there are children who can speak Turkish fluently among refugee children who continue their education, they do not understand the lessons as well as their native Turkish peers. For this reason, bilingual learning materials should be developed that will allow refugee children to receive education in their own language in their classrooms. In addition to school lessons, refugee children need to be supported with studies to help them learn Turkish language and lessons. Again, teachers who have refugee students in their class need to be informed about the special needs of these children. Studies should be carried out to reorganize the curriculum to include refugee students and to enable teachers to benefit from translation support in meetings with refugee children's families and parent meetings. Finally, with the reopening of schools within the scope of normalization steps, it would be appropriate to inform refugee children and their families in their own language (Baltalı et al, 2021).

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Why is the Teaching Profession Preferred by Turkish Students? A Literature Review

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Abstract

It is known that deciding on a profession plays a key role in people's lives. The decision is related to both individuals and their's societal conditions. Therefore, an individual who will pass to a productive stage will be able to be seen more clearly in public life. The teaching profession is a specific major and it has legal roots. It is claimed that the teaching profession has a private statute and it is expected that the teachers need to perform their profession compatible with Turkish national educational aims. Depending on that case, the teaching profession includes social, philosophical and historical dynamics. The profession interacts with socio-political and cultural elements in society. This study focuses on the reasons for choosing the teaching profession by Turkish students. For this purpose, the relevant literature has been examined and various findings have been reached. This study has been organized in line with a qualitative research approach. Data has been gained through relevant literature and systematically investigated by the method of document analysis. It has been concluded that economic, social, individual and cultural reasons are effective when choosing a teaching profession.

Keywords: reasons for preferences, teaching profession

1. INTRODUCTION

It is known that deciding on a profession plays a key role in people's lives. The decision is related to both individuals and their's societal conditions. Therefore, an individual who will pass to a productive stage will be able to be seen more clearly in public life. Career planning and career choice require a realistic assessment of talents and skills and having the necessary power to maintain them (Kuzgun, 1986). The choice of the profession includes various psychological processes. When considering the choice of profession, which includes various psychological processes, in terms of continuing the life of the individual, it can be stated that it is important for the individual to fulfil one's profession voluntarily.

In addition the teaching profession is a specific major and it has legal roots. It is claimed that the teaching profession has a private statute and it is expected that the teachers need to perform their profession compatible with Turkish national educational aims. Depending on that case, the teaching profession includes social, philosophical and historical dynamics. The profession interacts with socio-political and cultural elements in society.

Thanks to this interaction the meaning of being a teacher has changed. The position of teacher adds some tasks or responsibilities. To illustrate, when it is dated back to Turkish education history, the Period of II. Constitutional education was seen as a tool for overcoming some problems which have taken place during the period (Türk, 2011).

In parallel to this sample, an education congress was organized in 1921 during the continuing war. It is known that Mustafa Kemal valued teachers and he considered them "pioneers for our future liberation" (Güven, 2015). The

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samples prove that the teacher occupation is affected by cultural and the period's conditions. Moreover, the teaching profession plays a key role in transferring values and principles for the next generations.

In the line with this, John Dewey claimed that education has huge effects on humans and life. Thus, lifespan is limited so it needs education in order to cultivate for the next generation and pass on pieces of knowledge (Dewey, 2004). During the processing of transplantation, the teacher's role is quite important (Oktay, 1991). In this context, it is seen that the teaching profession has deep and varying positions.

Akyüz (1978), analyzed some approaches to being a teacher and he classified some categories like idealism, ideology, and financial satisfaction in his study. According to the idealist perspective, some findings which have some stereotypes were reached in his study. The findings are: a teacher is a divine person, teaching profession is similar to God's art. Yet, the idealist perspective doesn't have only religious terminology. The author claimed that some political and social discourses are included in this category as well. These discourses which are counted in were investigated and associated with historical context.

However, an important point here is the determination made by Akyüz (1978) on how discourses turn into negative meanings. According to him, the spiritual meaning attributed to teachers has changed in time and has caused two important negative results. First of all, the understanding that the teacher can content oneself with "less" has been rooted in the society (austerity). A second negativity caused by idealistic stereotypes is related to the deformation created in the psychology of the teacher. The author argues that this issue sometimes causes the fact that the teacher can see himself as inadequate when he or she faces with reality.

The author grounds an *ideological* point of view approach (people who see a teacher and the profession from ideological perspective) by establishing its relationship with the historical context.

Another approach, according to the author, is to view the teacher and the profession as *financial satisfaction*. According to this conceptualization, teachers' financial complaints were mentioned. It has been explained that these complaints continued over time and that teachers have such an image today also. The decrease in qualified teachers in education due to financial inadequacy has been considered as a negative issue. In other words, it has been emphasized that the fact that teachers' being not sufficiently financially satisfied in their profession leads to a decrease in the number of well-trained teachers. This economic inadequacy raises the possibility that teachers will experience personal and social problems.

The last point of view is about those who see the teacher and the profession with a *critical eye*. According to this approach, in a way, it is possible for a person to hold a mirror to himself and his work and to evaluate it. The first criticism is about the teacher's lack of self-education. Another is that teachers are not equipped in accordance with the realities of the country and society. Another point is that the teaching profession is damaged due to teacher behaviours. Another criticism is that the teaching profession is open to everyone, and therefore people who are not suitable for the profession's qualifications also work as teachers. This is reducing the quality of education.

This work of Yahya Akyüz is important in terms of explaining how the teaching profession is seen and what kind of meanings the profession has. Another point is that it gives clues about the teaching profession and the socio-cultural and economic practices of that period. Therefore, by looking at the results of this study, it is possible to see the social, cultural, economic and historical bases of the teaching profession. In other words, it also shows that the teaching profession cannot be carried out independently of the mentioned fields.

Oğuzkan (1971), emphasized three aspects of teaching: a teacher as an intellectual member of the Turkish society, a teacher as an intellectual member of the world community, and a teacher as a competent member of his profession. Considering the studies of Akyüz (1978) and Oğuzkan (1971), it can be noticed that various values are attributed to the teacher. In addition, when the teaching profession is considered in terms of relations with people, it is known that it is a profession that is intertwined not only with school and classroom but also with parents and society (Çelikten, Şanal and Yeni, 2005). In this context, especially in the settlement where the teacher works, for example, in rural settlements, the teacher has great prestige in that environment (Çelikten, Şanal and Yeni, 2005).

A teacher typology who constantly learns new information about his profession and profession within the scope of the concept of "teacher" shows the meaning and possibilities of education with its own existence (Reagan, 2019). It is not difficult to predict that such a teacher image will offer richer fields to its students. Therefore, in addition to the fact that the teaching profession has a public aspect, it is equally important to know the reasons for choosing this profession, since it has philosophical, social, cultural, political and economic practices.

1.1. Factors Effective in the Teaching Profession

Within the scope of this title, after briefly explaining the factors that are effective in choosing a profession in general, it is desired to establish a connection with the studies carried out in the field in particular for the teaching profession.

It is known that it is important to take into account the interests, wishes and needs of an individual in his or her career orientation. However, in addition to these, some factors also have an impact on the choice of profession. According to Razon (1983), these factors are; coincidences, environment and family conditions and the characteristics of individuals.

It is possible to talk about the effect of "coincidence" when people choose the profession by chance in order to get rid of indecision in the process of choosing their profession.

According to Razon (1983), another factor is environmental conditions. The region and the environment in which the person grows up have an impact on the profession of the person. The author gave the example of Zonguldak in this regard. The author mentions that the fact that mining is a common profession in this region can have a direct effect on this profession. In addition, it was stated that other than the parents, the profession of a person who is admired in the environment can be interesting to the individuals. However, the opposite is also possible. In other words, it was stated that the failure of a person in his/her profession in the environment and the negative ideas about that profession can affect the opinions of individuals about choosing a profession.

Another element is family. The economic opportunities and cultural background of the family have a weight in the career choices of individuals. In this context, it has been stated that the children of families with a wider socio-economic and cultural level can choose the professions that are suitable for them (Razon, 1983). It has been stated that the children of families with a lower socio-economic and cultural level cannot choose the suitable profession for them, and aspects such as social class mobility and providing economic benefits are more dominant in their aim of tending to the profession. Based on these statements in Razon 's (1983) study, it can be said that the choice of profession has a sociological and intellectual background.

Razon (1983), another point related to the characteristics of the family is the dominance of the "father" figure in the family. What is important in this type of family structure is the continuation of the "father's profession" instead of the happiness that children will get from their profession. Therefore, it has been mentioned that the members of the family who have the potential to work can be pressured in this regard and that sometimes children may rebel and there may be damage in family relations.

Another effect of the family on the individual's choice of profession is the expectation from the children to realize the wishes of the families that they could not fulfil in the past.

The stereotypes or positive evaluations of the family regarding a profession and the attitudes to their children in choosing their profession are also included in the category of "family conditions" in the decision-making process of individuals.

Considering familistic and environmental conditions, it would not be wrong to consider these conditions as a socio-cultural environment.

According to the author, another factor is related to the characteristics of the person arising from himself/ herself. The individual's interests, desires, abilities and skills are another factor in choosing a profession. In addition, the economic aspect of the profession itself, various features of the profession and the meanings attributed to them by the person have an effect on the choice of profession.

1.2. Choosing a Teaching Profession: Notes from the Field

Within the scope of this title, it was aimed to categorize the reasons for choosing the teaching profession, based on the studies carried out in the field. For this purpose, firstly, how this issue was handled in the studies was briefly explained and then evaluated in the form of titles.

When the reasons for choosing the teaching profession are examined, in the studies conducted with pre-service teachers in the field it has been noticed that, more personal, social, economic, individual characteristics; the motivation sources of the individuals, the characteristics of the teaching profession, the scores obtained in the central exams are emphasized (Övet, 2006; Özbek, 2007; Y. Boz and N. Boz, 2008; G. Özsoy, S. Özsoy, Özkara and Memiş, 2010; Çermik, Doğan and Şahin, 2010; Tataroğlu, Özgen and Alkan, 2011; Yılmaz and Doğan, 2015; Ekinci, 2017; Bursal and Buldur, 2016; Gültekin, Güler, Hayal and Yar-Sevmiş, 2016; Çakmak and Kayabaşı, 2017; Yurdakal, 2019).

In studies conducted with individuals who graduated from the faculty of science and literature and received formation training for teaching, it is seen that the teaching profession is preferred mostly due to economic concerns (Öztürk-Akar, 2013). Moreover, in a different study conducted with students studying in a non-thesis master's program, some of the reasons are: features of the teaching profession, love of children, and working conditions (Hacıömeroğlu and Şahin-Taşkın, 2009).

It has also been observed that the preference of the teaching profession's being related with the position of the profession in "memory" have been studied in the field (Altınok, 2019). In this master's thesis prepared by Altınok (2019), there are also findings about why teachers who taught in the 1970s turned to this profession. Accordingly, in this study which is conducted with an oral history study, it was stated that the characteristics of the period in which they lived, economic concerns and ideas about the teaching profession were influential in the preferences of the teachers. In addition to the information in the study that the participants come from families with a low socio-economic level, the fact that the teacher schools's being boarding school and that the teaching profession's having a job guarantee are among the important factors. Other factors are the limited chance of choice, the presence of teachers in the environments where individuals grow up, their love for the teaching profession, the lives of individuals, the status of the teaching profession in society, and coincidences that have an impact on the preference of the teaching profession. Considering Razon's (1983) classification of factors that are effective in choosing a profession, it was noticed that the findings obtained in this study (Altınok, 2019) were compatible in this context. One of the strengths of Altınok (2019)'s work is that it contains clues about the philosophical, social and historical foundations of the teaching profession.

There are also theoretical studies in the field related to the subject. In these studies, the socio-cultural and political aspects of the teaching profession and the transformative role of teaching in the early Republican Period in the history of Turkey (Özden, 2015), the teaching profession and its qualifications (Oktay, 1991; Çelikten, Şanal and Yeni, 2005; Yazıcı, 2009) the view of teaching in Turkey is given. Accordingly, in his study, for example, Oktay (1991) emphasized the importance of teacher education. It was explained that the students preferred the teaching profession because of some reasons: scores obtained from the central exams, the possibility of not being able to get into the departments they wanted and staying out of the university system and job guarantee possibility. This finding specific to this study also overlaps with other studies in the field (Tataroğlu, Özgen and Alkan, 2011; Eret-Orhan and Ok, 2014; Yılmaz and Doğan, 2015; Aydoğmuş and Yıldız, 2016; Yurdakal, 2019).

While investigating why the teaching profession was preferred, there was also a study in the field that approached the issue from the opposite direction, that is, explaining why it is not wanted to be a teacher (Aydoğmuş and Yıldız, 2016). In this study, which was carried out with the participants studying primary school teaching, the participants did not want to be a teacher and the reasons for this were expressed as the incompatibility of the individual characteristics of the participants with the profession as the status of teaching in the society and the central exam scores associated with the previous context.

In addition to these factors, it has been found that there is also a "gender" factor in the preference of the teaching profession in the relevant field (Övet, 2006; Çermik, Doğan and Şahin, 2010; Gültekin, Güner, Hayal and Yar-Sevmiş, 2016; Yurdakal, 2019). However, it was observed that there was an emphasis on gender rather than biological sex. Although the "gender" point of view is not clearly expressed in the related studies, it is understood that the definition of gender is made from the gender factor in the content of the studies. Accordingly, the idea of gender, which has been transformed by a historical and cultural background, is explained in these studies as teaching is considered as a suitable profession for "women".

1.3. Methodological Features of Examined Studies

In this literature review, in which the reasons for choosing the teaching profession are investigated, there are also determinations regarding the methodological features of the studies analyzed in the literature. Table 1 contains information about these studies.

Table 1. Methodological features of studies in the literature

Research Design		
Quantitative Research Design	Qualitative Research Design	Theoretical Study
Survey Model	Case Study	
Survey Model (Cross-Sectional)	Oral History Study	
Relational Research Design	Phenomenological Study	
Descriptive Study		

Table 1 shows the methodological features of the studies on the subject. In this table, the method information of the studies is expressed as the researchers stated in their own studies. According to the Table 1, it can be concluded that methodological features of studies in literature are divided into three parts quantitative, qualitative research design and theoretical study. While qualitative research design includes case study, oral history study and phenomenological study, quantitative research design involves survey models, relational research design and descriptive study.

1.4. *Information about the studies:* In this title, some explanations about the studies it is expressed.

It was noticed that the studies were designed in the survey model in order to describe the reasons for choosing the teaching profession. In this context, it has been noticed that questionnaires are used as a data collection tool for the reasons for choosing the teaching profession in various teaching branches (classroom teaching, science and mathematics teaching, preschool, social studies teaching, Turkish (language) teaching). In this context, for example, a survey was developed and a scale called "Factors Effective in Pre-service Teachers' Preference for Teaching Profession" was developed by Övet (2006). The factors obtained are stated under four headings as "Consciousness", "Assurance", "Ideal" and "Influence". When these factors are considered, there are items related to the characteristics of individuals and the social aspects of the profession under the name of "Consciousness"; in the "Assurance" factor, the items related to the fact that teaching provides job guarantee; in the "Ideal" factor, the items related to the central exam scores and the ideal profession of the person; in the factor of "Influence", there is information that there are items related to being affected by the family and the environment. In addition, it was mentioned in the related study that this scale was made ready for application after the validity and reliability studies were carried out.

Considering the results of this study, it was concluded that these factors were effective in the selection of the teaching profession. It has been determined that this scale developed by Övet (2006) is also used in other studies in the field (G. Özsoy, S. Özsoy, Özkara and Memiş, 2010; Nalçacı and Sökmen, 2016).

Another survey development study on the subject was carried out by Özbek (2007). The data collection tool was divided into two parts, it was stated that five questions were about the personal information of the pre-service teachers, and the next fifteen questions were about the personal, social and economic reasons of the teaching profession. Cronbach Alpha internal consistency coefficient is found as 0.66. According to a few of the results of this study, a significant difference was found in economic factors in terms of pre-service teachers studying in different departments. In this context, it has been determined that this factor is of higher priority for the department of primary education. It has been concluded that personal factors are seen as an important factor in choosing the teaching profession in all departments.

Another survey study conducted by Yılmaz and Doğan (2015) was found in terms of revealing why the teaching profession was preferred. This study was applied to primary school mathematics teacher candidates and it was stated that it was aimed to determine the factors that affect their choice of profession and to determine whether these preferences change according to the grade level. As the reason for the researchers to develop such a questionnaire, it has been suggested that there are fewer studies specific to a single branch in the relevant literature and that there are comparative studies under the umbrella of primary education with other teaching branches. In other words, it was stated that such a study was carried out because there was a need to specifically examine the reasons for choosing the profession of primary school mathematics teachers. The study was designed in the survey model and the measurement tool was developed by the researchers. While developing the measurement tool, first of all, the existing measurement tools in the literature were examined and a pool of questions was created, then by taking

expert opinion and paying attention to the results in the literature, 10 factors that stood out more than others in choosing mathematics teaching were determined. These factors are “opportunities it will provide, easier learning than some other fields, teacher models encountered, my placement score’s being sufficient, my ideal job, being suitable for my personality, allowing to develop myself, being a “sacred” profession, the desire to take the place of traditional teachers and what my family wants”. In addition, there is also information that the necessary statistical processes have been carried out in order to apply the prepared scale. According to a few of the results of this research, it was stated that the factor "suitable for my personality" was chosen in the first place in choosing the teaching profession, and the results were obtained, such as the effect of the central placement score.

However, there are also studies designed with a qualitative approach on the subject. These studies were planned in a case study pattern in order to explain an existing situation in detail (Tataroğlu, Özgen, and Alkan, 2011; Yurdakal, 2019); Studies have also been found in the phenomenology design (Öztürk-Akar, 2013), which aims to address a phenomenon and emphasize its practice in daily life. In the mentioned study, it was investigated why 9 graduates of the biology department of the faculty of arts and sciences turned to the teaching profession. According to a few of the results of the study, it was stated that the graduates of this field had problems in finding a job, their employment area was limited, and they turned to teaching because they had difficulty in continuing their profession in their own graduation area. In this context, it can be said that the economic concerns of the participants in this study were effective in their orientation to teaching. In addition, it was stated that some of the participants were interested in teaching even after they had taught in private teaching institutions.

In addition there are other qualitative study patterns, like oral history study (Altınok, 2019) and other qualitative studies (Y. Boz and N. Boz, 2008; Hacıömeroğlu and Şahin-Taşkın, 2009).

Some studies that can be considered as theoretical studies have been found in the related literature (Razon, 1983; Kuzgun, 1986; Oktay, 1991; Çelikten, Şanal and Yeni, 2005; Özden, 2015; Yazıcı, 2009) as well.

The literature has been limited by investigated studies in this paper.

1.5. As a Conclusion: Why the teaching profession? Socio-economic, cultural and individual traits

In this literature review, in which the reasons for the preference of the teaching profession are discussed, it has been reached that this profession is preferred for various purposes.

In the studies conducted in the field related to the subject, it has been seen that many factors are mentioned in the selection of the teaching profession. It has also been noticed in the studies that they have the same content but different conceptualization. Therefore, it is thought that the question “why is the teaching profession preferred?” can be answered based on socio-economic, cultural and individual factors in general.

Considering the studies in the field, it was stated that the teaching profession was preferred due to altruistic, internal and external reasons (Y. Boz and N. Boz, 2008; Çermik, Doğan and Şahin, 2010; Bursal and Buldur, 2016). In related studies, altruistic motives are self-sacrifice to help people, society, serving in the government; the points such as love of the profession, child and person, being interested in the profession and being talented are internal; job guarantee, institutional features of teaching, social security, job description, terms of assignment, vacation time, etc. factors are also understood as external causes. However, the boundaries of such a distinction are not thought to be clearly drawn. For example, the concept expressed as altruism has a philosophical quality and there may be overlapping points between the internal causes and altruistic reasons mentioned in the studies. Therefore, in terms of being more comprehensive, it would be more accurate to consider the reasons for choosing the teaching profession on a socio-cultural and economic basis. In addition, the personal characteristics of individuals are also included in this category. Parallel to this, the research conducted by Özbek (2007) also found that personal, social and economic factors are effective in the career choices of teacher candidates.

Another point is the relationship between the teaching profession and gender. When the relevant literature is examined, it has been seen that gender is considered as a factor in the selection of the teaching profession in some studies (Övet, 2006; Çermik, Doğan, and Şahin, 2010; Gültekin, Güner, Hayal, and Yar-Sevmiş, 2016; Yurdakal, 2019). However, when these studies are examined, it is thought that (biological) sex evolves into more gender. In this context, it is possible to define gender in general terms as the rejection of biological determinism implied by terms such as gender and sexual difference, in which social factors are at the root of gender-based distinctions (Scott, 2010). Therefore, social norms, values or meanings attributed to genders are considered as reasons for choosing the teaching profession, rather than a biological difference between the sexes. Parallel to this, it is known that today, due to the increase in the female population in primary and pre-school teaching, the "feminized" image of this profession is being discussed (UNESCO, 2011) or gender sensitivity has been tried to be developed (Esen, 2013).

It has been noticed that the reasons for choosing the teaching profession mentioned in this literature review may be related to Pierre Bourdieu's concept of "capital". Bourdieu thinks that social life cannot be examined only with economic factors and the struggle between classes, and other activities such as education and culture are also important in social life (Baran, 2015). Bourdieu places the concept of "field" (Fr.champ) in place of "relations of production" and "infrastructure" in Marxism. Therefore, the "capital" owned is important in order to exist in these "fields". In this context, Bourdieu talks about economic, social and cultural capital. In general, it has been stated that economic capital should only be held in the hands of economic resources and that the property and income of the individual belong to this type of capital (Baran, 2015). According to the same source, it is stated that social capital reminds the network of relations that a person has in the area he is in.

Another type of capital is "cultural capital", which is in a special position for Bourdieu. This concept is stated as a structure that is instilled in families and individuals by those who hold power through education. Cultural capital exists in three forms: embodied (language and writing habits learned from childhood and the way the body is used), objectified (as objects that require special cultural abilities such as books, paintings, art or scientific works) and institutionalized (inequality and hierarchy created through the educational institution) (Baran, 2015; cited in Göker, 2007).

The institutionalized state of cultural capital causes reproduction. Parallel to this, he stated that the children of families with a larger cultural capital and the children of families with the opposite situation can achieve better results in terms of success in the educational environment than the second group (Bourdieu and Passeron, 2015). Therefore, based on these statements, it is possible to see the effect of Bourdieu's "capital" concepts on the choice of teaching profession.

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