

# Tailoring education for alpha learners: Harnessing learning styles for maximum learning outcomes

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## ABSTRACT

**Purpose:** Everyone learns in a different way, depending on what suits them best. Hence, this study explored the learning styles of Alpha learners as perceived by their parents and teachers, with a particular focus on identifying effective teaching techniques that promote engagement and academic success.

**Design/Methodology/Approach:** This descriptive survey was conducted among 52 teachers and 403 parents in Nueva Vizcaya, Philippines. The participants were selected randomly, and a modified teaching-learning styles questionnaire, validated beforehand, was utilized. The collected data were analysed using the mean and standard deviation.

**Findings:** Alpha learners preferred studying on the ground or a couch in various lighting and weather conditions. They pursued task completion and academic excellence while working on their own or under supervision, with external rewards as their motivation. Alpha learners sought consistency and moderate direction. They effectively studied without adult guidance, utilizing a diverse range of tools.

**Conclusions:** Alpha learners exhibit diverse preferences in their learning environment, including seating, lighting, and weather. They are motivated by rewards from outside sources and make an effort for academic success. They like independent or supervised work. They study effectively without adult guidance, utilizing various tools. Effective techniques for Alpha learners include reading, writing, debating, watching, touching, and listening.

**Research Limitations/Implications:** The study is subject to certain limitations, such as its restricted geographical coverage and dependence on self-reported perceptions. To enhance the validity and generalizability of the findings, larger and more diverse samples are required. Subsequent investigations ought to contemplate enlarging the sample size and broadening the participant pool to augment the credibility and universal relevance of the findings.

**Practical Implications:** Clear instructions for parents, strategies to understand and manage children's traits, and personalized teaching can enhance Alpha learners' academic performance.

**Contribution to Literature:** This research offers insights into Alpha learners' styles, preferences, and effective techniques, filling a literature gap. It informs educational practices for their engagement and academic success.

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**Keywords:** Alpha learners, Emotional factors, Learning styles, Learning outcomes, Physical learning environment, Physiological factors, Psychological factors, Sociological factors, Teaching-learning preferences.

## 1. INTRODUCTION

A nation's economy and individuals' standard of living are primarily improved through high-quality education. Its centrality was highlighted by the United Nations, which included it in its Sustainable Development Goals (SDGs). The 17 SDGs act as a framework to ensure a harmonious relationship between humans and the natural environment in the future, and the 4th goal was created expressly for useful screening for self-improvement for everyone by offering fair and inclusive quality education.

Early Childhood Development (ECD) is the mental, language, physical, and socio-emotional advancement of an individual from birth to around the age of eight. The educational institution is one setting where developmental growth occurs as children acquire the essential abilities that equip them with practical skills. As a result, activities that span from parenting to schooling must be addressed carefully. The global education industry has integrated Early Childhood Development and Education (ECDE) as a component of basic education to foster mental and physical wellness in a child. Early Childhood Development and Education is thus an organized program that generally incorporates childcare and instruction in a single, continuous process (Muthanje, Khatete, & Riechi, 2019). Further, early childhood education is the cornerstone of a person's total development in the educational system, which guarantees inclusive and excellent education for all and fosters lifelong learning for all learners. Early childhood education has been identified as the best stage for forming emotional and interpersonal ties and for the development of personal identity. Highly trained educators may also create learning environments and experiences that support young boys and girls in acquiring progressive principles and developing the skills they need to thrive in school. These environments and experiences can be entertaining, innovative, and tailored to each student. As a result, providing children with high education and welfare in their formative years enables everyone to have an impact on how their personalities mature, with the results getting stronger when initiatives are undertaken early on in life (Serrano, Alfaya, García, Carrillo, & Moya, 2020; UNESCO, 2020).

Based on studies on the growth and education of young children and feedback from professionals and educators from all around the world, the National Association for the Education of Young Children (NAEYC) established 10 criteria. Relationships, curriculum, teaching, students' progress evaluations, health, personnel training and assistance, families, civic engagement, the immediate environment, and management and leadership are some of these. The early childhood education program is implied by these criteria (Pacchiano, Wagner, & Lewandowski, 2019). It must incorporate efficient teaching techniques that are developmentally, culturally, and linguistically relevant and assist each child's knowledge acquisition from the perspective of the curriculum's goals. Children come from a variety of origins with varying learning preferences, needs, abilities, and interests (Saracho, 2019). By recognizing these variations and using instructional strategies that are suitable for each child, teachers and administrators can support the achievement of learners (Bruder et al., 2019).

Early education is deemed crucial for the academic and technical advancement of children due to the higher capacity of young minds to absorb knowledge during this developmental stage. Given their current generation, teaching young children is exceedingly challenging (Beneke, Park, & Taitingfong, 2019). There are numerous factors to consider in the teaching-learning process to meet the needs of the learners, and not everyone is qualified to instruct young children in a classroom. It demands several qualities, including a great degree of tolerance, patience, and kindness. Each state has a law that seeks to promote education that is learner-oriented and sensitive to the interests, intellectual and social qualities, conditions, and variety of children, schools, and societies with the proper teaching and learning systems. Due to the passage of RA 10157 (the Kindergarten Act) and Republic Act 10533 (the Enhanced Basic Education Act), which direct the implementers in the teaching process, the Philippine government has a defined vision for the education of young learners. Teachers have a significant role in this since they are the main people involved. How the teachers carry out their daily interactions with the students will determine whether this goal is realized. The learners' capacity for learning and the teachers' adaptability to take advantage of the various interests of the students influence their techniques, styles, approaches, and methodologies. Muthanje et al. (2019) said that the desired attributes of a teacher must include excitement for pupils, a great sense of humor, tolerance, effective communication skills, inclusivity, inventiveness, and adaptability as well. Mentoring small children may deplete a great deal of energy. The obstacles that the teacher faces daily might vary from interacting with tough behaviors to coping with weeping and grumpy youngsters. It is thus necessary for a teacher to balance the pupils' distinctiveness and maintain the class correctly operating every day (Khatete, Riechi, & Muthanje, 2019).

Effective teachers who are familiar with the concept of holistic child development may establish a differentiated learning strategy or style that is developmentally appropriate for each learner. On a daily basis, diverse learning styles or strategies are employed based on the requirements of the learners (Mellinger, 2018). Learning styles have evolved through generations and now need higher-level strategies. If the teacher is not adaptable, the learning methods used by the instructors to instruct the youngsters in this generation may not be successful. However, educators and parents may not grasp how the Alpha learner learns from several vantage points, including the physical environment, emotional, social, physiological, and psychological (Bamezor, Quaicoe, Forkuor, & Azumah, 2021; Feimster, McDow, & Mellinger, 2018).

Learning styles are defined as the whole of the teacher's efforts to establish a learning environment that supports an efficient teaching-learning process (Slot, 2018). The preparation of the physical learning environment, the development of policies and procedures, the maintenance of learner focus and participation in class, and the setting of one's emotional, sociological, physiological, and psychological aspects of learning are some of the approaches involved in this (Erdoğan, Özcan, Budak, & Işık, 2020). Physical surroundings must be changed to better accommodate modern teaching techniques that emphasize the active participation of the students, Huseyin and Gönül (2020). Because kindergarteners lack self-control and are recognized for their incredibly active movements and other physical activities performed in a school, it follows that if Higher Education necessitates the alteration of the physical environment for the learners, how much more so with preschoolers? Baars et al. (2021) added that when creating learning environments, learners' viewpoints must be considered. Since enlarged reference groups lessen the importance of within-class social comparison and flexible learning spaces support students' ability to regulate their behavior and make decisions for themselves, openness in school environments can also increase students' motivation and learning (Prain et al., 2018). Architectural design, organizational structure, educational culture, and student dynamics are the additional four components that make up a school's learning environment (Bradbeer, 2021; Deed et al., 2020). Therefore, changing a building's architecture or furnishings is not enough to create flexible learning spaces in schools. The curriculum, educational climate, and basic values are all impacted by these changes. (Bradbeer, 2021; Prain, 2018).

Irrespective of the teachers' chronological generation, this study was conducted to identify how crucial adaptability is for teachers when using teaching-learning methods to properly fulfill every generation's demands. Additionally, this will educate parents and teachers on the peculiarities of Alpha learners, enabling them to better comprehend and facilitate the ways their children are learning as they carry out and apply lessons. This study may also be beneficial to Teacher Education Institutions that provide Early Childhood Education programs to prepare pre service teachers for the teaching profession and to synchronize their teaching and learning methods with the current demands of learners.

### *1.1. Objectives of the Study*

This study determined the learning styles of the *Alpha* learners. Specifically, this study involved the observations of the parents and teachers in terms of the learners' learning styles and stimuli, particularly the physical learning environment, emotional, sociological, physiological, and psychological aspects.

## **2. METHODOLOGY**

In this investigation, a descriptive survey was used. This research employed a survey questionnaire that was modified from the Dunn and Dunn learning styles as cited by Dunn (1990). This tool was subjected to the scrutiny of experts and was content validated to determine its consistency. Preschool teachers and parents from the public northern portion of the province of Nueva Vizcaya, Philippines, were randomly chosen as respondents using simple random sampling. Ten (10) of the twenty-three (23) districts that constitute the province were represented. Every preschool teacher was asked to take part in the survey, especially those who conducted online pupil feedback. Interviews with the parents and teachers were conducted to validate the data gathered through the questionnaire. Research ethics and protocols were followed in gathering the data.

The level of learning styles of the Alpha learners was assessed in terms of the physical learning environment, emotional factors, sociological factors, physiological factors, and psychological aspects using the mean and standard deviation.

### 3. RESULTS AND DISCUSSION

#### 3.1. Alpha Learners' Learning Style as Observed by Their Parents

Table 1 shows the learning styles of Alpha learners in terms of the physical learning environment as evaluated by their parents.

Table 1. Learning styles in terms of physical learning environment of Alpha learners.

Physical learning environment	Mean	SD	Qualitative description
Sound			
Prefers quiet	2.49	0.833	Sometimes
Prefers some noise	2.78	0.820	Most of the time
Light			
Prefers low light	2.88	0.922	Most of the time
Prefers bright lights	1.75	0.825	Sometimes
Temperature			
Prefers cool temperature	1.94	0.887	Sometimes
Prefers warm temperature	3.31	0.692	Most of the time
Furniture used			
Desk, armchair, tables	1.69	1.667	Sometimes
Lying on the floor, bed	3.18	1.193	Most of the time

Note: 1.00-1.49 (No preference), 1.50-2.49 (Sometimes), 2.50-3.49 (Most of the time), 3.50-4.00 (Always).

The results show that the Alpha learners preferred a setting with some noise and low lights and adjusted themselves to a warm temperature since their experiences in the classroom and at home were the same. They are comfortable learning while lying on the floor or in bed.

In their study, Göçen, Eral, and Bücük (2020) stressed the necessity for altering the physical environment to better accommodate modern teaching techniques that emphasize the active involvement of the pupils. Teachers should consider lighting and acoustics when planning the physical environment. Teachers can use music and lighting to create a warm environment that supports the numerous activities that happen during the day. To allow kids to play quietly and actively during center time, the block area, for instance, can be carpeted to absorb noise. The furniture and floor coverings in a well-designed physical environment delineate various activity areas with distinct physical and visual boundaries. These flooring options and furniture items ought to make it easier to design spaces that are both cozy and practical. These showed that the necessity of creating a physical learning environment for the students has a significant impact on the teaching-learning process (Frelin & Grannäs, 2022; Starkey, 2020). Becker and Lock (2021) described learning preferences in terms of the learning environment. They claimed that many learners prefer to learn in a quiet environment, a well-lit room, a cool temperature, sitting on comfortable chairs or pillows, and in a casual setting.

Table 2 presents the learning styles of Alpha learners in terms of emotional factors as evaluated by their parents.

Table 2. Learning styles in terms of emotional factors of Alpha learners.

Emotional factors	Mean	SD	Qualitative description
Motivation			
Motivated by external rewards	2.18	0.885	Sometimes
Responsibility/Conformity			
Do what is asked	2.10	0.821	Sometimes
Prefers to work on his/her own	2.55	0.813	Most of the time
Task persistence			
Desire to achieve academically	1.83	0.835	Sometimes
Prefers to work until finished	2.07	0.867	Sometimes
Structure			
Guided step-by-step	1.84	0.818	Sometimes
Prefers to have routine	1.86	0.792	Sometimes

The results imply that, in terms of emotional factors, Alpha learners need external motivation to be successful in their tasks. Because working independently helps them develop their individuality, they occasionally prefer to work until a task is finished, and they occasionally want to win an academic award. Additionally, although some people succeed better with everyday chores, others need step-by-step directions. Many parents who participated in the interview stated that their children are adaptable to the tasks they are given depending on how to guide them, but they are extremely confident in the majority of their activities based on their observations.

Additionally, [Aksoy and Gresham \(2020\)](#) reinforced the idea that social-emotional learning skills are a varied set of competencies that are important in a range of contexts for the learners' learning. The ability to approach peers with confidence and show empathy for them is among the abilities related to children's emotional development. Social-emotional learning competence is the capacity to comprehend, articulate, and manage one's emotional and social aspects of life in such a way as to successfully manage life's tasks, such as establishing relationships, learning, adapting to complex demands arising from development and growth, and resolving everyday issues. Additionally, [Szeszulski et al. \(2021\)](#) highlighted that most are self-motivated, preferring to study one lesson at a time, preferring to study without being reminded, and preferring to be told exactly what to do and how to accomplish it. [Table 3](#) displays the learning styles of Alpha learners in terms of sociological factors as evaluated by their parents.

**Table 3.** Learning styles in terms of sociological factors of *Alpha* learners.

Sociological factors	Mean	SD	Qualitative description
Self	2.82	0.787	Most of the time
Pair/Peers/Team	2.10	0.885	Sometimes
Adults or parents			
Without adults	2.84	0.829	Most of the time
With parents	1.87	0.848	Sometimes
Variety			
Books or pictures	1.83	0.834	Sometimes
Manipulative materials	2.04	0.864	Sometimes
Educational games using gadgets	1.98	0.907	Sometimes
Using videos, video clips	2.11	0.887	Sometimes

The early years of a child's life are crucial for their social development. The basis for future success is built on the social skills acquired during this period. However, the finding shows that most of the time, Alpha learners learn independently and without adult supervision. They occasionally also favor using technology or manipulatives to accomplish a variety of activities.

But the parents made it clear in the interview that their children are adaptable. Their parents' guidelines for self-control determine how they behave. Some parents reported that their children seem to have intrinsic knowledge in terms of technology and creativity in the manipulation of materials given to them based on their observations. Even for their first interaction with technology alone, they are neither apprehensive nor afraid to use it.

In a recent study, [Blair, McKinnon, and Daneri \(2018\)](#) assessed how the Tools of the Mind curriculum affected the social-emotional competency of kindergarten and first-grade students. An early childhood curriculum and professional development program called Tools of the Mind (Tools) aims to support children's cognitive, social, and emotional development with a particular emphasis on executive function and self-regulation. According to the findings, the Tools of the Mind program was successful in boosting kindergarten students' self-control, social-emotional skills, and teacher relationships while lowering aggression, behavior issues, and emotional symptoms. Similar findings were made by [Solomon et al. \(2018\)](#) who discovered that preschoolers who participated in the Tools of Mind program improved more in terms of self-regulation. Additionally, preschoolers use and communicate different facets of their peers' cultures to their peers, mostly as a strategy to control their interactions ([Burlakova & Klopotova, 2019](#)). This accentuates the significance of subculture in the socialization of children. It is necessary to leverage the skills of adults, such as parents and teachers, to advance children's subculture.

[Table 4](#) exhibits the learning styles of Alpha learners in terms of physiological factors as evaluated by their parents. According to the findings, Alpha learners can also be tactile, kinesthetic, visual, and auditory. They would rather not eat while studying. They can sit quietly while learning, and they learn best in the afternoon session.

**Table 4.** Learning styles in terms of physiological factors of *Alpha* learners.

Physiological factors	Mean	SD	Qualitative description
Perceptual			
Auditory	1.79	0.819	Sometimes
Visual	1.96	0.847	Sometimes
Tactile	1.96	0.843	Sometimes
Kinesthetic	1.81	0.797	Sometimes
Food intake			
Prefers to eat	2.66	0.896	Most of the time
Prefers not to eat	2.85	0.817	Most of the time
Time of day			
Morning session	2.10	0.862	Sometimes
Afternoon session	2.83	0.743	Most of the time
Mobility			
Able to sit still	2.57	0.836	Most of the time
Not able to sit still	2.48	0.867	Sometimes

Parents claim that while kids generally enjoy eating, it depends on the activity that is assigned to them. Some people like to accomplish their chores before eating if they are focused on them, but others work while they eat. On the other hand, as indicated in the table, the respondents prefer to learn in the afternoon because they can remain seated while attending to other duties. According to the conversation with the parents, the learners' behavior affects how well they succeed. When they are playing enjoyable games, they will undoubtedly sit for a long time, but when they become tired of the tasks they are given, they will undoubtedly wander.

Contrarily, [Grumiaux, Kitić, Girin, and Guérin \(2022\)](#) stressed that most people prefer to learn by doing things, eating, or chewing while studying, preferring to study in the morning, and with fewer breaks and movements. However, a child's subculture most clearly reveals the qualities of their inner world, and this fact cannot be ignored in educational work with children ([Lorenzo & Gallon, 2019](#); [Shelshakova, 2021](#)).

[Table 5](#) shows the learning styles of *Alpha* learners in terms of psychological factors as evaluated by their parents.

**Table 5.** Learning styles in terms of psychological factors of *alpha* learners.

Psychological factors	Mean	SD	Qualitative description
Global	1.94	0.811	Sometimes
Analytic	1.85	0.808	Sometimes
Impulsive	2.55	0.792	Most of the time
Reflective	2.11	0.848	Sometimes

The findings showed that while *Alpha* learners tend to be impulsive most of the time, they may also be contemplative, global, and analytic. This means that when pupils are being taught or learning something new, they often respond quickly, whether their response is correct or incorrect. Other parents have noted that children frequently estimate the right answers, particularly when options like multiple choice, matching type, and other evaluation tools with options are provided. However, learners think differently when they are encouraged to reflect and reason through their responses.

[Dantas and Cunha \(2020\)](#) stated that the bulk of individuals have analytical psychological preferences and prefer to learn sequentially and reflectively or take their time to make decisions. [Cimermanová \(2018\)](#) added that the most common learning styles are visual, sequential, reflective, sensory, global, active, intuitive, and verbal. Male students dominate active, intuitive, and global learning more than female students do. At least one couple in each ethnic group had a mean score for active, intuitive, and global that was higher.

### 3.2. *Alpha* Learners' Learning Style as Observed by Their Teachers

[Table 6](#) reveals the learning styles of *Alpha* learners in terms of the physical learning environment as evaluated by their teachers.



**Table 6.** Learning styles in terms of the physical learning environment of *alpha* learners.

Physical learning environment	Mean	SD	Qualitative description
Sound			
Prefers quiet	2.56	0.725	Most of the time
Prefers some noise	2.50	0.754	Most of the time
Light			
Prefers low light	2.90	0.975	Most of the time
Prefers bright lights	1.56	0.574	Sometimes
Temperature			
Prefers cool temperature	1.79	0.696	Sometimes
Prefers warm temperature	3.12	0.808	Most of the time
Furniture used/Learning positions			
Desk, armchair, tables	1.56	0.669	Sometimes
Lying on the floor, bed	2.63	0.715	Most of the time

According to the findings, Alpha learners prefer neither calm nor a little noise most of the time when it comes to their learning styles in a physical learning environment. When it comes to lighting, they occasionally favor bright lights but generally prefer modest lights. The majority of the time, alpha learners prefer warm temperatures to cool ones while they are learning. Additionally, the Alpha learners love to study while lying on the floor or in bed most of the time, yet occasionally they prefer a desk, recliner, or table.

Muhammad, Ume, Fiaz, and Muhammad (2021) asserted that a decent infrastructural facility always promotes academic preparedness. The learners' health, safety, sense of self, and psychological conditions were all impacted by factors such as clean and good air, good light, a small, comfortable, and safe setting, building age and condition, and maintenance quality, temperature, and color (El-Sabagh, 2021).

Table 7 displays the learning styles of Alpha learners in terms of emotional factors as evaluated by their teachers.

**Table 7.** Learning styles in terms of emotional factors of *alpha* learners.

Emotional factors	Mean	SD	Qualitative description
Motivation	1.71	0.723	Sometimes
Responsibility/Conformity			
Do what is asked	2.00	0.626	Sometimes
Prefers to work on his/her own	2.38	0.718	Sometimes
Task persistence			
Desire to achieve academically	1.87	0.595	Sometimes
Prefers to work until finished	1.90	0.634	Sometimes
Structure			
Guided step-by-step	1.85	0.668	Sometimes
Prefers to have routine	1.77	0.614	Sometimes

According to the findings, Alpha learners are more motivated by outside rewards and prefer to work independently or follow the instructions. They also had the desire to achieve academically and work until they finished. *Alpha* learners also desire to be guided step-by-step and have a routine.

Aksoy and Gresham (2020) additionally claimed that social-emotional learning skills are a diverse set of aptitudes that are crucial in a variety of classroom situations. Children's emotional development is related to their ability to communicate empathy to their peers and approach them with confidence. To successfully handle life's tasks, such as establishing connections, learning, adjusting to complicated demands coming from development and growth, and resolving day-to-day issues, one must have the ability to perceive, express, and regulate the emotional and social components of their existence.

Table 8 displays the learning styles of Alpha learners in terms of sociological factors as evaluated by their teachers.

**Table 8.** Learning styles in terms of sociological factors of *alpha* learners.

Sociological factors	Mean	SD	Qualitative description
Self	2.73	0.744	Most of the time
Pair/Peers/Team	1.73	0.689	Sometimes
Adults or parents			
Without adults	2.63	0.687	Most of the time
With parents	2.04	0.593	Sometimes
Variety			
Books or pictures	1.58	0.537	Sometimes
Manipulative materials	1.35	0.556	No preference
Educational games using gadgets	1.63	0.742	Sometimes
Using videos, video clips	1.62	0.718	Sometimes

Alpha learners preferred to study alone and without adult guidance using their strategies and with various materials like storybooks or pictures, educational games, computers, tablets, or cellphones, videos or video clips, presentations, and other technologically related materials.

To regulate their interactions, preschoolers use and convey different aspects of their peers' cultures to their peers (Rozi et al., 2020), who emphasized the significance of subculture in preschoolers' socialization. To promote children's cultures, adult skills must be utilized, such as those of parents and teachers. On the contrary, most learners prefer to study and learn in pairs, depending on the results of their study in terms of social preferences (Felder, 2020).

Table 9 shows the learning styles of Alpha learners in terms of physiological factors as evaluated by their teachers.

**Table 9.** Learning styles in terms of physiological factors of *alpha* learners.

Physiological factors	Mean	SD	Qualitative description
Perceptual			
Auditory	1.69	0.701	Sometimes
Visual	1.63	0.687	Sometimes
Tactile	1.69	0.579	Sometimes
Kinesthetic	1.48	0.577	No preference
Food intake			
Prefers to eat	2.63	0.793	Most of the time
Prefers not to eat	2.42	0.723	Sometimes
Time of day			
Morning session	1.52	0.610	Sometime
Afternoon session	2.77	0.703	Most of the time
Mobility			
Able to sit still	2.73	0.744	Most of the time
Not able to sit still	2.12	0.832	Sometimes

Findings indicated that Alpha learners learned best from listening, discussing, reading, observing, touching, and writing. Surprisingly, they have no preference in terms of moving or doing anything.

This may be the case because this generation is naturally curious, exploratory, and active learners. According to most early childhood philosophers throughout history, including Dewey, Montessori, and Froebel, children learn best by doing. The afternoon sessions are ideal for learning, and the students can remain still for extended periods while studying. The students would also like to eat and drink while they are learning or performing various chores. Learners were eager and motivated to learn while listening and talking (Halif et al., 2020). According to research, "Why?" is a question that kids frequently ask because they want further information. Explanation-seeking curiosity (ESC) is stimulated by first-person signals (such as novelty or surprise), third-person cues (such as a knowledgeable adult's shock or question), and future-oriented cues (such as expectations about information gain or future value). ESC is triggered when a sufficient explanation cannot be found, which is frequently accomplished by causal intervention or question-begging, both of which lose effectiveness as the process goes on (Chetty et al., 2019).



Table 10 presents the learning styles of Alpha learners in terms of psychological factors as evaluated by their teachers.

Table 10. Learning styles in terms of psychological factors of *Alpha* learners.

Psychological factors	Mean	SD	Qualitative description
Global	2.04	0.685	Sometimes
Analytic	2.08	0.652	Sometimes
Impulsive	2.48	0.641	Sometimes
Reflective	2.12	0.548	Sometimes

The findings demonstrated that *Alpha* learners thought sequentially, flexibly, and conceptually. Additionally, learners frequently make snap judgments and must carefully consider their options. According to the researcher's observations, youngsters make decisions quickly, especially when offered options, but after some time they start to second-guess their choices. If they feel that their choice was incorrect, they are more likely to act out.

Both global and analytical learners are conceivable. While the global learner sees the broad picture, or overall view, the analytical learner focuses on the components that make up the big picture. Global learners hear the "gist" of what is being said and quickly understand the key concept or problem. It could be difficult to remember the specifics (Sener & Çokçaliskan, 2018). The global student is interested in "how to accomplish it" when it comes to "what is supposed to be done" (Westby, 2019).

#### 4. CONCLUSIONS

Parents observed that *Alpha* learners preferred a setting with some noise, dim lighting, and a warm temperature. They are most comfortable studying cuddled up on the floor or bed. In order to work effectively, they also require outside motivation. They develop independence through autonomous study and may decide to keep working until their duties are finished in order to obtain academic rewards. Additionally, *Alpha* learners like to do different kinds of tasks utilizing manipulatives or their gadgets, and they frequently study on their own without adult supervision. *Alpha* learners can also be kinesthetic, tactile, visual, and auditory. When learning, they would prefer not to eat. The afternoon session is when they can concentrate and learn the most. *Alpha* learners also tend to be impulsive in nature, despite the fact that they occasionally display reflection, global thinking, and analytical abilities.

Teachers discovered that most *Alpha* learners equally preferred being on the ground or on a couch, in dim or bright lighting, or in warm weather. Additionally, *Alpha* learners prefer working independently or taking direction since they are motivated by rewards from outside sources. Along with finishing successfully, they also aspired to do well in school. They generally desire consistency and a little more direction. Moreover, *Alpha* learners tended to study well without parental supervision and with a variety of tools, including storybooks, illustrations, educational games, laptops, tablets, cellphones, films or video clips, presentations, and other technologically related products. Finally, reading, writing, debating, watching, touching, and listening were among the most effective learning techniques for *Alpha* learners.

#### 5. IMPLICATION TO THEORY AND PRACTICE

To meet the needs of the current generation, school administrators may take the lead in curriculum improvement and encourage teachers to attend seminars, apply for graduate programs, or compare their programs to those at other institutions that use cutting-edge teaching methods. By attending seminars, enrolling in graduate programs, and continuing to study the methodologies and approaches in the teaching and learning styles of the current age, teachers can keep their knowledge up-to-date. Additionally, they may coordinate their instructional methodologies, materials, assessments of student learning, and other requirements with the needs of the students.

Teachers need to give parents clear instructions regarding their level of participation and restrictions in the teaching-learning process. To properly meet the demands of their children, they should also receive instruction on how to deal with and manage the personalities of the current generation.

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## ETHICAL STATEMENT

The Ethics Committee through the Assistant Schools Division Superintendent of the Schools Division of Nueva Vizcaya, Department of Education, Region II - Cagayan Valley, Philippines, has granted favorable approval for the conduct of this study on 10 August 2021 provided that the ethical standards are observed as specified in the DepEd Order #16 s. 2017, known as the "Research Management Guidelines".

## CONFLICT OF INTEREST

The authors declare that they have no competing interests.

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## AUTHORS' CONTRIBUTIONS

All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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## REFERENCES

- Aksoy, P., & Gresham, F. M. (2020). Theoretical bases of "social-emotional learning intervention programs" for preschool children. *International Online Journal of Education and Teaching*, 7(4), 1517-1531.
- Baars, S., Schellings, G. L., Krishnamurthy, S., Joore, J. P., den Brok, P. J., & van Wesemael, P. J. (2021). A framework for exploration of the relationship between the psychosocial and physical learning environment. *Learning Environments Research*, 24(1), 43-69. <https://doi.org/10.1007/s10984-020-09317-y>
- Bamezor, B. L. A., Quaicoe, T., Forkuor, J. B., & Azumah, F. D. (2021). Exploring stakeholder perceptions of quality early childhood education in private day care centers in Ghana: A qualitative approach. *Education Research International*, 2021, 1-10. <https://doi.org/10.1155/2021/6695936>
- Becker, S., & Lock, J. (2021). Re-imagining assessment: Assessing design thinking within makerspaces in teacher as designer. In (pp. 119-132). Singapore: Springer.
- Beneke, M. R., Park, C. C., & Taitingfong, J. (2019). An inclusive, anti-bias framework for teaching and learning about race with young children. *Young Exceptional Children*, 22(2), 74-86. <https://doi.org/10.1177/1096250618811842>
- Blair, C., McKinnon, R. D., & Daneri, M. P. (2018). Effect of the tools of the mind kindergarten program on children's social and emotional development. *Early Childhood Research Quarterly*, 43, 52-61. <https://doi.org/10.1016/j.ecresq.2018.01.002>
- Bradbeer, C. (2021). The enactment of teacher collaboration in innovative learning environments: A case study of spatial and pedagogical structuration in teacher transition into innovative learning environments. In (pp. 47-60). Singapore: Springer.
- Bruder, M. B., Catalino, T., Chiarello, L. A., Mitchell, M. C., Deppe, J., Gundler, D., . . . Muhlenhaupt, M. (2019). Finding a common lens: Competencies across professional disciplines providing early childhood intervention. *Infants & Young Children*, 32(4), 280-293. <https://doi.org/10.1097/iyc.000000000000153>
- Burlakova, I. A., & Klopotova, E. E. (2019). Retrospective or look into the future: Possibility of general mental giftedness development of senior preschoolers. *Psychological-Educational Studies*, 11(1), 27-41. <https://doi.org/10.17759/psyedu.2019110103>
- Chetty, N. D. S., Handayani, L., Sahabudin, N. A., Ali, Z., Hamzah, N., Rahman, N. S. A., & Kasim, S. (2019). Learning styles and teaching styles determine students' academic performances. *International Journal of Evaluation and Research in Education*, 8(4), 610-615. <https://doi.org/10.11591/ijere.v8i4.20345>
- Cimermanová, I. (2018). The effect of learning styles on academic achievement in different forms of teaching. *International Journal of Instruction*, 11(3), 219-232. <https://doi.org/10.12973/iji.2018.11316a>
- Dantas, L. A., & Cunha, A. (2020). An integrative debate on learning styles and the learning process. *Social Sciences & Humanities Open*, 2(1), 100017. <https://doi.org/10.1016/j.ssaho.2020.100017>
- Deed, C., Blake, D., Henriksen, J., Mooney, A., Prain, V., Tytler, R., . . . Muir, T. (2020). Teacher adaptation to flexible learning environments. *Learning Environments Research*, 23(2), 153-165. <https://doi.org/10.1007/s10984-019-09302-0>
- Dunn, R. (1990). Understanding the Dunn and Dunn learning styles model and the need for individual diagnosis and prescription. *Reading, Writing, and Learning Disabilities*, 6(3), 223-247. <https://doi.org/10.1080/0748763900060303>

- El-Sabagh, H. A. (2021). Adaptive e-learning environment based on learning styles and its impact on development students' engagement. *International Journal of Educational Technology in Higher Education*, 18(1), 1-24. <https://doi.org/10.1186/s41239-021-00289-4>
- Erdoğan, N. I., Özcan, Ö., Budak, K. S., & Işık, I. (2020). Change and stability in early childhood preservice teachers' beliefs about child development. *Elementary Education Online*, 18(4), 1718-1718.
- Feimster, J., McDow, A. D., & Mellinger, J. D. (2018). Teaching residents to teach: Why and how In surgeons as educators. In (pp. 119-136). Cham: Springer.
- Felder, R. M. (2020). Opinion: Uses, misuses, and validity of learning styles. *Advances in Engineering Education*, 8(1), 1-16.
- Frelin, A., & Grannäs, J. (2022). Teachers' pre-occupancy evaluation of affordances in a multi-zone flexible learning environment—introducing an analytical model. *Pedagogy, Culture & Society*, 30(2), 243-259. <https://doi.org/10.1080/14681366.2020.1797859>
- Göçen, A., Eral, S. H., & Bücük, M. H. (2020). Teacher perceptions of a 21st century classroom. *International Journal of Contemporary Educational Research*, 7(1), 85-98. <https://doi.org/10.33200/ijcer.638110>
- Grumiaux, P.-A., Kitić, S., Girin, L., & Guérin, A. (2022). A survey of sound source localization with deep learning methods. *The Journal of the Acoustical Society of America*, 152(1), 107-151. <https://doi.org/10.1121/10.0011809>
- Halif, M. M., Hassan, N., Sumardi, N. A., Omar, A. S., Ali, S., Aziz, R. A., . . . Salleh, N. F. (2020). Moderating effects of student motivation on the relationship between learning styles and student engagement. *Asian Journal of University Education*, 16(2), 93-103. <https://doi.org/10.24191/ajue.v16i2.10301>
- Huseyin, U., & Gönül, A. (2020). A content and citation analysis of the studies on learning environments and special education. *International Journal of Cognitive Research in Science, Engineering and Education*, 8(2), 95-104. <https://doi.org/10.5937/ijcrsee2002095u>
- Khatete, I., Riechi, A., & Muthanje, K. A. (2019). *Influence of teacher professional qualifications on acquisition of learner competencies in early childhood development and education in public primary schools in Embu County, Kenya*. Retrieved from <http://erepository.uonbi.ac.ke/handle/11295/155963>
- Lorenzo, N., & Gallon, R. (2019). Smart pedagogy for smart learning in didactics of smart pedagogy. In (pp. 41-69). Cham: Springer.
- Mellinger, R. (2018). *Mind full, or mindful?: The effects of mindfulness-based interventions on 3rd-grade students' test-related anxiety saint mary's college of California*. Retrieved from <https://www.proquest.com/openview/63915689dcb3ef8b985c86ac9c8b7a68/1?pq-origsite=gscholar&cbl=18750>
- Muhammad, A. H., Ume, H., Fiaz, M., & Muhammad, S. (2021). Adaptive gamification in e-learning based on students' learning styles. *Interactive Learning Environments*, 29(4), 545-565. <https://doi.org/10.1080/10494820.2019.1588745>
- Muthanje, K. A., Khatete, I., & Riechi, A. (2019). Influence of teacher professional qualifications on acquisition of learner competencies in early childhood development and education in Public Primary Schools in Embu County, Kenya. *International Journal of Science and Research*, 8(6), 1961-1966.
- Pacchiano, D. M., Wagner, M. R., & Lewandowski, H. (2019). Organizing early education for improvement. *Young Children*, 74(4), 24-33.
- Prain, V. (2018). Using quantitative methods to evaluate students' post-occupancy perceptions of personalized learning in an innovative learning environment in school space and its occupation. In (pp. 223-241). Brill. [https://doi.org/10.1163/9789004379664\\_014](https://doi.org/10.1163/9789004379664_014)
- Prain, V., Blake, D., Deed, C., Edwards, M., Emery, S., Farrelly, C., . . . Meyers, N. (2018). A framework to support personalising prescribed school curricula. *British Educational Research Journal*, 44(6), 1101-1119. <https://doi.org/10.1002/berj.3481>
- Rozi, F., Bali, M., Firdaus, S., Wijaya, M., Mursyidi, R. A., Haqiki, M. W., & Abidin, Z. (2020). *Learning management; identifying learning styles of language learners in madrasah*. Paper presented at the Proceedings of the International Conference on Industrial Engineering and Operations Management.
- Saracho, O. N. (2019). Handbook of research on the education of young children. In (4th ed., pp. 410). New York: Routledge. <https://doi.org/10.4324/9780429442827>
- Sener, S., & Çokçaliskan, A. (2018). An investigation between multiple intelligences and learning styles. *Journal of Education and Training Studies*, 6(2), 125-132. <https://doi.org/10.11114/jets.v6i2.2643>
- Serrano, R. M., Alfaya, M. E. G., García, M. D. L. Á. O., Carrillo, J. R., & Moya, M. M. (2020). The practicum, a space for transformative research in early childhood educational contexts. *REICE: Revista Iberoamericana Sobre Calidad, Eficacia y Cambio en Educación*, 18(2), 17-34. <https://doi.org/10.15366/reice2020.18.2.001>
- Shelshakova, N. N. (2021). Diagnostics of the development of early children: Criteria and tools. *JETT*, 12(1), 200-205.
- Slot, P. (2018). *Structural characteristics and process quality in early childhood education and care: A literature review*. OECD Education Working Papers, No. 176. <https://doi.org/10.1787/edaf3793-en>
- Solomon, T., Plamondon, A., O'Hara, A., Finch, H., Goco, G., Chaban, P., & Tannock, R. (2018). A cluster randomized-controlled trial of the impact of the tools of the mind curriculum on self-regulation in Canadian preschoolers. *Frontiers in Psychology*, 8, 1-18. <https://doi.org/10.3389/fpsyg.2017.02366>

- Starkey, L. (2020). A review of research exploring teacher preparation for the digital age. *Cambridge Journal of Education*, 50(1), 37-56. <https://doi.org/10.1080/0305764x.2019.1625867>
- Szeszulski, J., Lorenzo, E., O'Connor, T., Hill, J. L., Shaibi, G. Q., Buman, M. P., & Lee, R. E. (2021). Exploring correlates of preschool-aged children's locomotor skills: Individual and parent demographics and home environment. *Perceptual and Motor Skills*, 128(2), 649-671. <https://doi.org/10.1177/0031512520980938>
- UNESCO. (2020). *Global education monitoring report 2020: Inclusion and education: All means all*. 92310038. Retrieved from <http://hdl.voced.edu.au/10707/553248>
- Westby, C. (2019). The myth of learning styles. *Word of Mouth*, 31(2), 4-7. <https://doi.org/10.1177/1048395019879966a>