



# Kidsapp PS

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**Abstract**— By examining children's learning styles, we hope to better understand the purpose and results of education for children. Our actions, including how we respond to and convey things.

We apply our expertise to others. We compared the educational results of different online tools for youngsters. Yet as we've seen, there are still a few elements lacking, making learning approaches and learning styles ineffective for children.

Particularly, we can only detect a few behavioral patterns in all the online educational materials for children (apps, games, links, portals, etc.), and the majority of them are deficient in many areas. In this essay, we address the issue of effective internet education and provide doable advice for children's independent learning.

**Keywords**— Web-based, E-learning, Pre-school, WAL learning styles model

## 1. INTRODUCTION

The preschool years are crucial for children's development. Any child's reading proficiency and comprehension depend on the training and upbringing they receive. It is increasingly important for parents to spend more time and money on resources and tools that can help their young children learn and succeed in their future studies and careers. Early on, teaching and learning took place in more formal settings like classrooms, but today's technology has quickly revolutionised how children learn. From the blackboard to more modern technology, learning and teaching resources have changed to support instruction and learning at all learning levels, from preschool to higher education. Consequently, Kids have been home schooled a lot lately because of the modern, dynamic approach to teaching and learning.

This research will suggest a web-based system based on a solid theoretical framework that will enable kids to develop cognitive and psychomotor skills including the recognition of numbers and alphabets and logical thinking. The system was created with kid-friendly backdrops, sounds, colours, and navigation to keep kids' attention while they learn.

**1.1 Research Aim-** Create a web-based application that emphasises using everyday things to help young children learn the English alphabet and number recognition in order to obtain a more precise activity-based learning.

### 1.2 Research Objectives

To undertake a review of the literature on user-centered design and the most effective teaching and learning methods for children, taking into account their strengths and shortcomings.

To design and construct a sophisticated yet user-friendly web application that can concentrate on children's comprehension rather than destructions.

To create a system that encourages children to concentrate and enjoy learning by using real-world elements like music and pictures that will grab their attention.

To increase learning speed in developing children and increase the effectiveness of teaching and learning at the pre-school level.

To construct a system that explains the critically important areas when it comes to child development and learning capacity, while limiting the system to pre-school learning activities and excluding higher learning success.

To create a web-based application that is independent of the operating system (OS).

### 1.3 Kids and Smartphone

Nowadays, parents give their children smart devices at a very young age in the hopes that they can engage them in online games and interactive learning. Kids now use a variety of smart devices, including smartphones, tablets, iPods, electronic toys, and many more, and spend a lot of time in front of screens. Smartphones are become a common gadget among children. One major factor in this is the ease with which technology is now accessible, as well as a number of fascinating aspects of these

gadgets, such as large screen displays, user-friendly HD, lightweight construction, attractive design, etc.

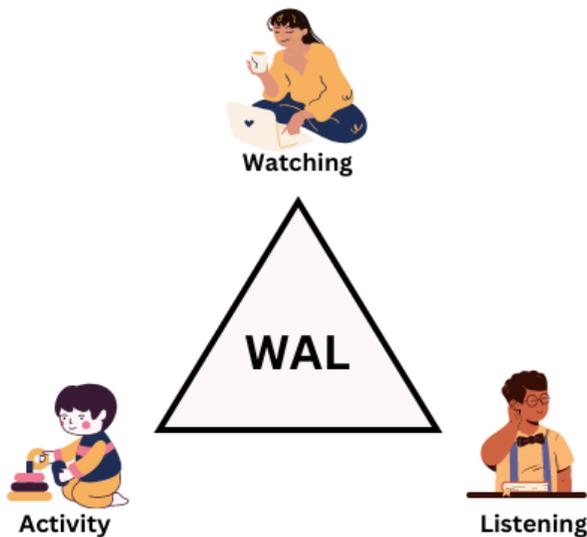


Fig 1: WAL Style model

## 2 LITERATURE REVIEW

### 2.1 Cycles of learning and learning preferences

The approach suggests employing a learning cycle to structure a lesson or an entire course. Different learning styles are connected to the various cycle stages.

Recognize that everyone has a different preferred learning style is the first step in educating kids about the various alternative methods available.

"Learning is the process whereby knowledge is created through the transformation of experience," writes Kolb (1984, 38). The theory suggests a method for organizing and sequencing the curriculum.

Especially how a lesson or a whole course may be delivered to enhance student learning. It implies that learning occurs in cycles and consists of the four stages of feeling, watching/reflecting, thinking, and doing (Fielding, 1994). The theory's key component is the association between the various stages and particular learning styles.

### 2.2 Applications for children's education on mobile devices

The use of smart mobile devices is expanding quickly. These digital devices are part of a new wave of technical tools that provide even young children with access to content they can utilise creatively. The majority of the top-selling paid educational apps are geared towards young users. However, it might be challenging to assess the educational value of those applications.

There are few resources available to parents and teachers who are evaluating these apps for the potential educational benefits they anticipate for their children and/or students from these gadgets.

### 2.3 Effectiveness of WAL and improvements to teaching techniques:

In this regard, a fresh invention is crucial to helping students in the class learn how to create overall summaries. By fostering a supportive learning environment, teachers can increase student motivation. The field of education is now developing a wide variety of teaching techniques. The created model/method is anticipated to serve as an alternative to the WAL paradigm in aiding young learners in summary writing. According to the WAL model, learning will be successful if attention is paid to learning methods and styles as well as opportunities that young learners may have. The direct and engaging learning experiences are the main focus of education. It is achieved by learning to recall (watching), learning by hearing (listening), and learning with movement (activity). Using the three elements in learning activities should be possible for kid learners.

### 2.4 Benefits of mobile learning

Mobile learning environments have replaced place-fixed learning environments as a result of mobile communication. Mobile learning naturally appeals to more introverted people because it requires spending more time processing knowledge inwardly rather than connecting with others in person. Mobile learning, however, can become quite monotonous in the absence of mentoring and face-to-face engagement. With its ability to instantly adapt to changing learning needs, mobile learning enables students to find information or acquire new ideas at their own pace and convenience wherever they are and whenever they choose. In this way, learning becomes more fluid and meaningful.

## 2.5 RELATED WORK

### 2.4.1 Kids Learning App:

With the help of this software, kids may easily complete a variety of , chores, and puzzles. Children may find it easier to adapt to digital apps by there grading up their knowledge.

### 2.4.2 Play, nursery, LKG, and UKG Kids:

It is an all-encompassing programme with a variety of features, including numbers, alphabets with pictures, animals, fruits, vegetables, and shapes, among others.

### 2.5.3 English KidsApp:

This software will be very helpful in instructing and educating your kids through digital chores, challenges, and on math, alphabets, numbers, days, weeks, additions, and subtractions, among other subjects.

## 2.5.4 ABC -Tracing & Phonetics

It's a fantastic software for parents to take care of their kids in terms of their understanding of letter recognition and their shapes with more appealing colours. Despite doing quick calculations with improved visual effects

## 2.5.5 Math Kids:

This app is incredibly beneficial for your child's education and math levels. With the help of this app's improved visual jobs and challenges on problems, kids may quickly grade up their skills and mental capacity.

## 2.5.6 Kids Pre School All-In-One App

This software mainly focuses on 6 areas that are crucial and require action. The alphabet, math, colours, shapes, fruit & veg, animals, and vehicles are among them. In essence, it's a complete software for kids before school.

## 2.5.7 Kids Spelling Learning:

Using this software, kids may learn how to spell any word. Additionally, students can acquire proper spelling through voice recognition and online training.

## 2.5.8 Numbers Learning for Children:

It's an excellent application for kids to learn numbers, counting, and basic math concepts with audio help. With the help of this software, children can easily learn and listen to numbers in both ascending and descending order while being curious and creative.

## 2.5.9 Shapes for Kids to Learn:

A child can practise physical forms like rectangles, triangles and squares as well as the differences between them by utilizing this app.

## 2.5.10 Rhymes and stories

Rhymes inspires young people to experiment with language and words. When people read poetry, they can hear how words may be bent and stretched to rhyme, and they do the same when they make poetry!

Emerging readers benefit from poetry. Because many poems are brief and lovely, beginning readers are frequently less frightened while reading poetry. Both the rhyme and the rhythm aid in word identification.

Children's growth and development are greatly aided by stories. It improves communication and listening skills. It is essential to learning, communication, and social relationships for youngsters to develop their language and thinking skills through stories.

Children pick up a lot of terms that they will use for the first few years of their existence! Stories are one of the ways kids learn to like reading, whether you tell them to them or read them to them from books.

## 2. Methodology

E-learning exploits Web technology as its basic technical infrastructure to deliver knowledge. As the current trend of academic and industrial realities is to increase the use of e- learning, in the near future a higher demand of technology support is expected.

In particular, software tools supporting the critical task of instruction design should provide automated support for the analysis, design, documentation, implementation, and deployment of instruction via Web.

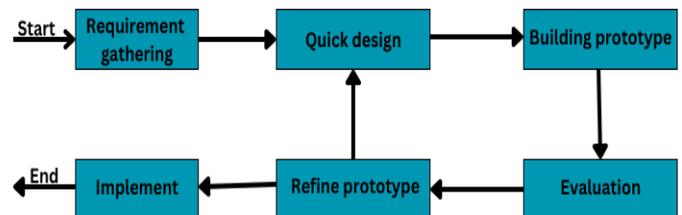


Fig 2 - Work-flow diagram

## 3. EXISTING SYSTEM:

Today's digitization has expanded the space for learning platforms and techniques. There are several conventional methods of teaching children, including slate-and-pencil, cards, posters, videos, audios, and pictures, among others.

In this digital age, these traditional approaches are less successful at obtaining knowledge quickly and effectively.

The taxonomy chart is a tabular depiction of various applications or systems based on various parameters, used to analyse and support a proposed system.

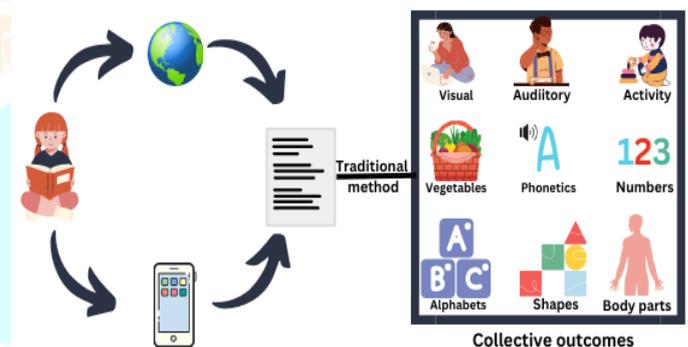


Fig 3 - Existing System Architecture

## 4. PROPOSED SYSTEM:

Our suggested solution aims to out perform the current setup and provide a flawless application for kids by addressing every facet of their educational needs.

### 5.1 3D Visual Module:

This module includes all visual elements, including images, objects, GIFs, and more. Images and GIFs provide content a sense of authenticity and improve connections with children. In simple terms, visual

content engages children's attention. Visual modules also make a good first impression on children. GIFs condense information into manageable chunks, making it easier for kids to recall.

## 5.2 Auditory Module:

This module includes everything auditory in a phonetic manner, including word pronunciation, voice pitch, etc. If children are auditory learners, they will learn by listening and hearing. Children comprehend and retain information. Children absorb oral instructions better than written ones because they store information based on how it sounds. Because they need to hear it or speak it in order to understand it, they frequently learn by reading aloud.

Kids probably hum or talk to themselves or others if they get bored since they learn best through auditory means. Even though they may be hearing and understanding everything that is being said, people may mistakenly believe they are not paying attention.

## 5.3 Activity

Everything in this module is explained through practical experience. Kids who learn tactically learn by doing and touching. They use movement to comprehend and retain information. They prefer to touch, move, build, or draw what they learn because they are "hands-on" learners, and they generally retain information better when there is some sort of physical activity involved. They must be active, take regular breaks, and frequently use gestures and their hands to speak.

As a tactile learner, they enjoy disassembling and reassembling objects, and when they feel bored, they frequently look for activities to do to pass the time. They

could be exceptionally athletic and have excellent coordination.

They may find it difficult to recall what they saw or heard during the procedure, but they can quickly recall things that were done. Kids frequently use touch to communicate, and they value physical encouragement like a pat on the back.

## 5.4 Games and Puzzles Module:

This module includes games and puzzles that help improve reasoning development. It aids in improving kids' analytical thinking and logic. Puzzle games need to provide the perfect balance of education and pleasure. Most of the time, kids might not even be aware that they are learning until they have internalised the most important lessons. Make online training motivating and enjoyable while providing business learners with the skill sets they require by utilising these puzzle game concepts. This gives training an exciting new component.

## 5.6 Various learning modules:

This module includes an analytical component to assess the students' proficiency in terms of understanding the material. With the aid of 3D object realisation, one can play a game of object discovery in the actual world. It is intended to advance their reading, linguistic proficiency, numeracy, and socialization. When children's minds are engaged in worthwhile activities, they can learn a lot. It uses emotive explanations to clearly convey emotions, numbers, and alphabets. These few hours that children set apart each day can aid in the comprehensive development of their fundamental social skills.

## 5.7 Practice Board Module:

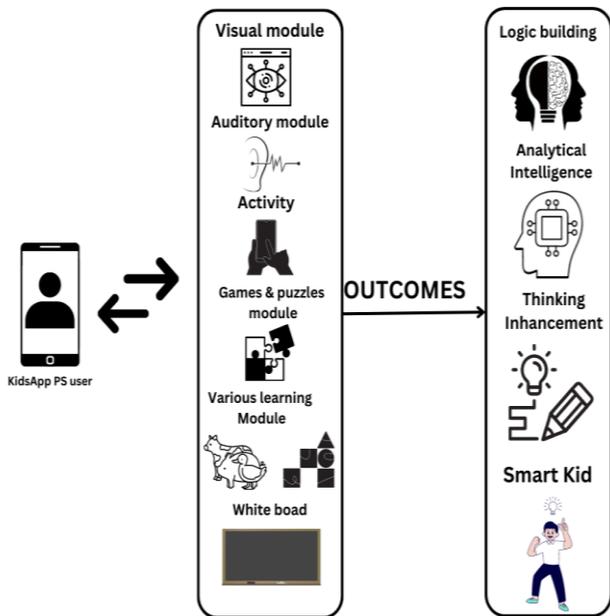


This module includes. White board that can be used as a board on which we can make gesture-based drawings of objects, numbers, alphabets, animals, etc. As kids start studying in methods that are significantly more engaging and interactive for them, using a whiteboard helps to promote active learning and increase memory and cognition. Children must learn differentiation, and using a whiteboard makes differentiation promote active learning and increase memory and cognition. Children must learn differentiation, and using a whiteboard makes differentiation simpler for them.

Parameters Sources & AppS	Visual	Auditory	Activity	Puzzles	White board	Logic Enhancer	Phonetic	Numbers	Alphabets	Colors & Shapes	Poems & stories	Days of Week & Years	Body Parts	Animals, Vegetables, fruits
Kids Learning App	✓	✓	✗	✗	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓
Play, Nursery, LKG, UKG Kids	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓
ABC Kids - Tracing & Phonics	✓	✓	✗	✓	✗	✓	✗	✗	✓	✓	✗	✗	✗	✗
English Kids App	✓	✓	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓
Math Kids	✓	✓	✓	✗	✗	✓	✗	✓	✗	✓	✗	✗	✗	✗
Kids Pre School All-In-One App	✓	✓	✗	✓	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓
Kids Spelling Learning	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓	✗	✗	✓	✓
Numbers Learning For Kids	✓	✓	✗	✗	✗	✗	✗	✓	✗	✓	✗	✗	✗	✗
Learn Shapes - Educational Game	✓	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗
KidsApp PS (Proposed system)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Fig 5. Taxonomy chart

Research Through Innovation



**Fig 4. Proposed System**

## 6. CONCLUSION

We used the WAL Module to analyse and provide a broad perspective on children's overall development in this paper. Additionally, the comparisons across the factors (age group, research design, learning outcomes, and learning styles) gave us useful data with which to work and ensure that children's education is more successful.

The results of the suggested system imply that this can promote the development of young children. It once more leads to logic development, analytical intelligence, thinking improvement, and ultimately a "SMART KID".

## 7. Result and Discussion

In this chapter, we go over the suggested web-based system that is intended to aid in the development of young children's cognitive and psychomotor skills, including the ability to recognise numbers and alphabets and use logic. To hold kids' interest while they study, the system was designed with kid-friendly backgrounds, sounds, colours, and navigation.

In our initial analysis of the current system, we discovered that traditional teaching methods including slate-and-pencil, cards, posters, movies, audios, and photos are less efficient at helping students learn fast and effectively. As a result, we put up a solution that, by attending to all aspects of a child's educational requirements, seeks to exceed the current system. The proposed methodology consists of a number of modules, each of which is intended to accommodate a distinct learning style. All visual components, such as pictures, objects, GIFs, and more, are included in the 3D Visual Module. Children's attention is captured by visual information, which also strengthens relationships with them. Everything auditory, such as word pronunciation and voice pitch, is included in the auditory module in a phonetic fashion. Hearing knowledge helps kids

understand it and remember it. Children who learn tacitly learn by doing and touching, which is how the Activity Module teaches everything. The games and puzzles in the games and puzzles module aid in the formation of reasoning. The various learning modules also have an analytical component to gauge how well the student comprehends the information.

We analysed and presented a comprehensive view of children's overall development using the WAL Module. We have useful information from the comparisons across the variables, including age group, research methodology, learning outcomes, and learning styles, with which to make improvements to children's education.

The outcomes of the proposed system demonstrate that it can support young children's development, resulting in logical growth, analytical intelligence, improved thinking, and ultimately a "SMART KID". Overall, to achieve a more precise activity-based learning, our suggested web-based method emphasises using commonplace items to help young children acquire the English alphabet and number recognition.

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