**CHAPTER II:**

**REVIEW OF RELATED LITERATURE AND STUDIES**

**Theoretical Background**

This proposal is anchored on the Sociocultural Theory by psychologist Lev Vygotsky. Vygotsky believed that children learn actively and through hands-on experiences. ﻿ His sociocultural theory also suggested that parents, caregivers, teachers, peers and the culture at large were responsible for developing higher order functions (Sherries & Peyton, 2019).

In Vygotsky's view, learning is an inherently social process. Through interacting with others, learning becomes integrated into an individual's understanding of the world. This child development theory also introduced the concept of the zone of proximal development, which is the gap between what a person can do with help and what they can do on their own. It is with the help of more knowledgeable others, like teachers, that people are able to progressively learn and increase their skills and scope of understanding (Salkind, 2004).

Therefore, it is very consequential for learning centers to have knowledgeable teachers since they will serve as models and early motivators of children. They are influential to the children’s growth and development. With the turnover rate of teachers, especially in learning centers, there is a need to figure out a solution to minimize its effects. iLearnCentral helps learning centers manage and control the hiring and profiling of their teachers. It also allows them to have an immediate replacement of their teacher in the event of sudden resignations. Thus, the effects it will have on children will be substantially reduced. iLearnCentral also ensures teachers to be in charge of their schedule and to be at ease with their tasks of creating lesson plans. The features that the app have help teachers become more efficient and productive with their time.

**Related Literature**

In the Philippines, case study by the United Nations Educational, Scientific and Cultural Organization (UNESCO shows that an increasing number of school-age Filipinos are out of school. A huge percentage of Filipino children and youth aged 6 to 17 years are not attending school. In 2003, there were a total of 5.18 million out-of-school youth (1.84 million out-of-school children aged 6 to 11 years old, and 3.94 million young people aged 12 to 15) in the country according to the Department of Education (DepEd). In fact, the government estimates that “one in six school-age children in the country is being deprived of education and the number is rising steadily. These numbers have been backed up by a recent Australian Council for Educational Research (ACER) report that highlights the importance of preschool education in the Philippines. The first report of the study, released in May 2016, examined the results of the first of four assessment rounds, which measured the cognitive, social and emotional, and oral language skills of children at the commencement of their first year of school.

The report revealed that students who attended a preschool program performed better across all three domains than those who did not. Accordingly, even in general terms, without collecting and analyzing data on the duration or type of preschool program attended, it appears that attending preschool makes a positive difference within the sample. This supports current interventions and the government’s policy related to investing in early years education.

All these reports show that there is a need of updating and innovating Philippine’s Learning Center processes as it is vital to the growth and foundation of children. Learning Centers can turn to iLearnCentral to achieve this in a lesser amount of time.

There have been a few books published that pinpoint the significance of educators’ qualification in early childhood education. Sheridan et al (2009) stated in her book “Professional Development in Early Childhood Programs: Process Issues and Research Needs” that the knowledge, skills, and practices of early childhood educators are important factors in determining how much a young child learns and how prepared that child is for entry into school. Early childhood educators are being asked to have deeper understandings of child development and early education issues; to provide richer educational experiences for all children, including those who are vulnerable and disadvantaged; to engage children of varying abilities and backgrounds; to connect with a diverse array of families; and to do so with greater demands for accountability and, in some cases, fewer resources, than ever before. The importance of understanding the qualities of early childhood educators that contribute to optimal child learning and they are to meet certain educational qualifications and receive professional development to enhance their abilities to support young children's learning. Indeed, the professional development of practicing early childhood educators is considered critical to the quality of experiences afforded to children (Martinez-Beck & Zaslow, 2006).

In the face of increased attention to early childhood professional development in the practice and policy communities, there is a concomitant need for empirical efforts to examine what works for whom, within which contexts, and at what cost (Welch-Ross et al, 2006). Research on early childhood professional development must go beyond basic questions that address caregiver characteristics and their associations with attributes of knowledge, skill, or practice. Rather, establishing a scientific endeavor of early childhood professional development requires building a body of theories and evidence about not only its forms but also its and proximal and distal outcomes. The early childhood field is at a place where professional development practice and craft knowledge require a larger and firmer platform of theoretical and empirical expertise in order to guide planning and implementation of the ambitious kinds of school and child care reforms that are demanded in the current era of services expansion and accountability. Indeed, the field is acquiring a body of findings of the effects of various forms, levels, and organizations of professional development on early childhood educators' knowledge bases and skillsets. However, we need to know more about the dynamic and transactional teaching and learning processes underlying these effects as they function in real-world early childhood settings. For example, we need findings documenting personal theories of change, supportive relationships among participants, and practitioner acceptance/resistance to change. We are even farther behind in building a solid body of empirical information on the indirect but essential influence of professional development on child and family outcomes. The number of children going to preschool and the number of licensed educators has proportionally increased. This gives Learning Centers the liberty of selecting the best available educator basing on their underlying professional development – skills, behaviors, and qualifications.

Additionally, some studies have focused on the efficiency and simplification of the hiring process of employees in bigger companies. The foundation of a high-impact workforce relies on the quality employees, but successful teams can’t be built by antiquated recruiting processes. Talent acquisition professionals are constantly in search of better ways to hire as the demand for talented individuals goes up and pressures on recruiting teams simmer. More than half of talent acquisition leaders say the hardest part of recruitment is identifying the right candidates from a large applicant pool and, unfortunately, that's because many of them are doing so by hand. Companies are looking for more efficient ways to modernize and streamline recruiting efforts. As the hiring process has evolved from newspaper ads to job boards to social recruiting, the next wave of this industry is recruiting automation. Just as salespeople and marketers have benefited from software-enabled automation in recent years, recruiters are increasingly turning to automated mechanisms for hiring the best talent, and the industry is responding accordingly.

Buckley et al (2004) did some study on the advancement of human resource systems. Presently, these systems are being modified so they can be administered using various forms of computer technology. These technological advances are being driven primarily by strong demands from human resource professionals for enhancements in speed, effectiveness, and cost containment. This case study presents results obtained by an educational publisher from the use of an automated recruiting and screening system. The system allowed for recruiting and the automated administration of professionally developed, job-related questions aimed at deciphering whether an applicant meets the job requirements. The analyses showed conservative savings due to reduced employee turnover, reduced staffing costs, and increased hiring-process efficiencies. The current system coupled with the addition of planned enhancements should increase future hiring efficiency, employee quality, and resulting financial savings.

In May 2018, Reija Oksanen, a faculty member of the University of Tampere, also did a study on the transformation and impact of the use of technology in recruiting practices. The use of technology in recruiting practices is constantly becoming more and more routine amongst organizations. Recruiting as a whole has experienced a major change with new technologies providing quick, effective and cost-efficient ways of finding potential employees. Among these new technologies are big data and AI. Organizations have been collecting massive amounts of data, and now they are able to derive real value from big data and AI. The research data was collected during the spring of 2018 by interviewing weight recruitment professionals who work among recruitment on a daily basis. Data was studied with qualitative methods by analyzing, coding and identifying themes. As the aim of this study was to widen knowledge about the phenomenon of new technology-based recruitment methods the findings of this study appeared broad and diverse, highlighting the novelty of the phenomenon as opinions of the interviewees varied greatly. Three phases where AI can be of short-lived recruitment process were identified: practical organizing, pre-screening applications, and candidate communication. The benefits and disadvantages of AI in recruitment aroused much discussion and opinions among the interviewees. Numerous opportunities and risks were identified when utilizing new technologies in recruiting. Among other things, accelerating the recruitment process, automation of routine tasks and increasing objectivity were seen as opportunities. The risk of discrimination, data distortion, and invasion of privacy were considered as risks, among others.

**RELATED STUDIES**

In July 2018, three students of the University of San Carlos (USC) - Patrick Dave Woogue, Cris Lawrence Adrian Militante, and Gabriel Andrew Pineda won the grand prize for their online tutorial system at the 14th Smart Wireless Engineering Education Program (SWEEP) Innovation and Excellence Awards for their mobile application Eryl. The application leverages on a mobile platform that allows users to act as student-tutors to those having difficulty with their lessons, thus stimulating collaborative learning within the school. It is a mobile online tutorial system that will enable students to join online classes or organize one and it will also let them select from a teacher pool and negotiate for a schedule and fee.

OrangeApps, a school management application, has been officially released in 2014 by then 19-year old Gian Javelona. It has since become a huge technology company that builds products that focuses on solving problems in education. Schools of every size use the platform to manage their entire operations from admission, payments, grading, scheduling and a whole lot​ more giving them time to focus more on providing better education. The app comes with multiple features for teachers, students, admins and parents. However, it is designed for large schools and universities.

Schoology was designed by three Washington University students - Jeremy Reid, Ryan wang and Alex Trinidad and has been released since August 2009. It is a cloud-based platform which was originally developed for sharing notes. Today, Schoology provides teachers the tools needed to manage and oversee an online classroom activity for K-12 and higher education institutions.

iEduCentre has focused on the comfort of business owners and administrators for schools and tuition centers. Before the days of the digital revolution, these organizations are saddled with bundles of administrative burdens, endless paperwork and shelves crammed with files. In 2011, Aquarius Soft launched iEduCentre and had since benefited more than hundred over clients in Singapore. After refining the system along the way through rounds of consultations with our clients, we are proud to introduce a total of more than 40 modules, each inter-facing well with one another to create a highly comprehensive, user-friendly and stable system for all our customers.

SpellWizards is an engaging educational program designed specifically to help children learn spelling, while having fun along the way. It has been designed for children aged 4-11 in order to improve their spelling, and enhance their computer knowledge and typing skills. Accessible online as a web app, SpellWizards is an effective support tool which can be used by schools, teachers and parents looking to encourage and engage children to learn through play, with the added benefit of being able to track their progress online.

**Comparative Matrix**

This section shows the different studies that are related to the proposal. This shows its differences and will be used by the proponents as basis to create and innovate the features of iLearnCentral.

**Table 1**

COMPARATIVE MATRIX

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| --- | --- | --- | --- |
| **Related Studies** | **Features** | **Limitations** | **Platform Details** |
| Name: Eryl  URL: None  Year: July 2018 | - Allows users to become students and tutors  - allows to negotiate on a teacher pool | - not fully released | - None |
| Name:OrangeApps  URL:<https://orangeapps.ph/>  Year:2014  Proponents:Gian Javelona | - Admin, Teacher, Student and Parents monitorong and management system | -Intended for huge schools and universities  -Unknown, how waste paper it takes to create new ones; | -None |
| Name: Schoology  URL: <https://www.schoology.com/>  Year: 2009  Proponents: | - for K-12 school and higher education institutions  - Automated grading system  - calendars and messaging | - educator-centric app | -None |
| Name: iEduCentre  URL: <https://www.ieducentre.com/>  Year: 2011 | - CRM & Scheduling  - attendance tracking, fee automation  -student, parent and portals  HR & Payroll | - Only available in the US | -None |
| Name: SpellWizards  URL: <https://spellwizards.co.uk/>  Year: Unknown | - Spelling assistant for children aged 4 - 11 | - only for learning to spell | -None |