Information Systems on Learning & Communication Devices for Parents: Media for Learning Acquisition in the Digital Age

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Abstract

During the pandemic, learning for early childhood is carried out in the form of distance learning, both with online and offline models. As a result of this policy, parents in Indonesia must assist their children while studying from home. Various information is needed so that parents can carry out their duties which are at the same time their obligations, in a good and correct way, in accordance with the principles of early childhood learning. Information system for learning and communication devices for parents or abbreviated SIPPKOM, is here to meet the needs of parents to get information about learning needed to help children while learning from home. SIPPKOM is made by utilizing a website to be accessed using a mobile phone or laptop wherever parents are. The purpose of this research is to describe the possible strategies used by parents to obtain information on the core-basic competencies, learn themes, tools, weekly and daily lesson plans, children's progress reports, as well as communicate with teachers through the use of SIPPKOM. This is qualitative research with data collected through observations, interviews, and documentation. The research subjects were 10 parents from 2 partner institutions using SIPPKOM who were willing to be involved in the research. The data collected were analyzed using the Miles and Huberman model with reduction, presentation, and concluding stages. The result showed that parents could easily get information on learning tools, including weekly and daily lesson plans, academic calendars, and E-reports, irrespective of the time and place. Access to SIPPKOM can also be carried out using a cellphone/ smartphone or a laptop. Furthermore, parents can also communicate with teachers without worrying that subsequent ones will overwrite the information provided. The implication of the results of this study is that institutions can provide other communication platforms that can be used to convey information related to learning planning and the abilities achieved by children as a result of their assessment.

Keywords: *information acquisition media; kindergarten teacher; learning device information systems; parental communication; the digital era*

INTRODUCTION

The pandemic brought about enormous changes in virtually all parts of the world. It affected the economic, health, socio-cultural, law, and educational sectors. Academically, these changes were experienced at every level, including early childhood, from 0 to 6 years old. Structured learning is a form of education offered to children within 3 to 6 years, of preschool age, both in playgroups and kindergartens, which have various challenges. Learning principles have to be considered that enable educators to deliver academic activities according to the children's characteristics, needs, and abilities. This is realized with various methods and media that attract increased curiosity. Meanwhile, with the teacher's assistance, various abilities are optimally achieved.

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However, the pandemic also brought about changes in the learning process. Parents are required to play the role of educators at home to aid their children in "learning." This is certainly not an easy task, given the various limitations, both in terms of knowledge and ways to educate early childhood, time availability, as well as personality abilities, where they are required to be patient in dealing with their children's uniqueness.

To overcome these problems during the pandemic and at the same time achieve maximum educational services, teachers adopted various strategies, namely online and offline learning methods. It involves a variety of media easily found at home to help boost learning. Furthermore, the teacher also provides relevant information about the daily and weekly activities that the children need to perform while studying at home. Although, this is affected by several limitations, including infrastructure and the availability of networks and data, thereby making it impossible to carry out these tasks for a long time. This information is conveyed through WhatsApp since this application has numerous advantages, such as the ability to send videos, photos, voice recorders, files, and also make calls (Radiol, Nuraeni, Prakoso, 2020).
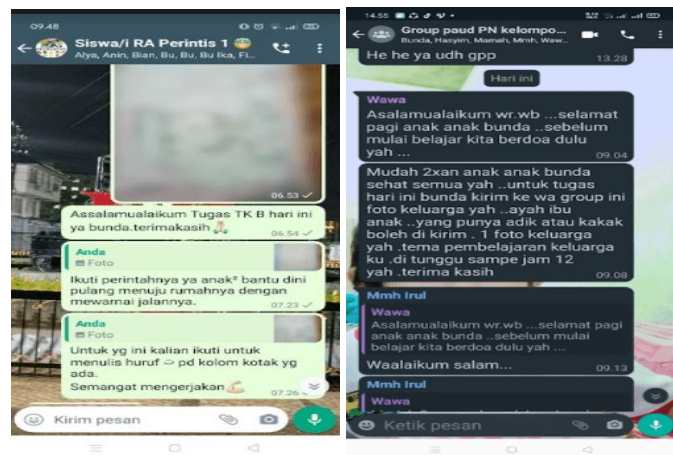

(a)   (b)

Figure 1. (a). Activity plans for children, (b). Submission of learning information through WhatsApp

However, WhatsApp also has some drawbacks; for instance, the conveyed information tends to be overwritten by conversations of the members in a particular group. Therefore, there is a possibility that some of this information are unread. This causes many parents to take screenshots, assign a star mark or download the needed conversation. However, these documents certainly fill the storage space and, when left unchecked, cause the cellphone not to work optimally.

The information conveyed by the teacher through WhatsApp is also related to the activities that need to be carried out either daily or weekly. Meanwhile, those regarding the children's developmental achievements, for example, report cards, are certainly, not conveyed through this application. These are given face-to-face or collected by the parents whenever they visit the school. In some circumstances, they are usually late due to their busy schedules. Conversely, a report card needs to be filled out by the teacher and then printed according to the page and the number of students in each class. This takes place every semester in virtually all schools. Therefore increasing the need for the paper is inversely proportional to its availability.

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Along with technological developments that coincided with the COVID-19 pandemic, alternative media are needed that can be used easily, quickly, and can be accessed anywhere using various existing tools, such as mobile phones, laptops, or smartphones, which are used to obtain information about lesson plans and reports on child development as well as communicating about them. One of them is an information system for learning devices and parental communication, or what is known as SIPPKOM. This system is built using a unified modeling language (UML) and a programming language in the form of PHP MySQL, which can be accessed online. No other research results have been found regarding information systems with such content created using UML and programming languages.

LITERATURE REVIEW

Learning in the Digital Age

Learning is interpreted as the interaction between educators and students using various strategies to achieve the specified goals. The process needs to be fun, thereby enabling preschoolers between the ages of 3 to 6 years to be able to follow the entire procedure and improve their various abilities according to child development aspects. Meanwhile, varying methods and media always need to be adopted, thereby enabling their thinking level in the preoperational stage to be facilitated as well as boost their knowledge and understanding. Its proper application enables these children to be able to carry out their daily activities.

However, the current digitalization era provides a different learning atmosphere, and the use of technological devices covers all life aspects, including the educational sector. Early childhood education was not an exception, and the pandemic incited educators to adapt quickly. Online and offline learning strategies were adopted to reduce the spread of the Covid-19 virus. This also includes the transition period from face-to-face learning in the classroom to blended learning that is carried out anytime and anywhere without eliminating the teacher's presence in the entire process. Students and educators in different places give each other feedback, ask and answer questions, as well as interact with one another (Fauzan & Arifin, 2017).

Learning Information Acquisition Media

Information is a collection of data or facts organized or processed in a certain way that is meaningful to the recipient (Anggraeni & Irviani, 2017). Interestingly, individual needs, including learning processes, tend to be obtained for those related to a particular course. Several media are utilized to obtain this information, especially in the current digitalization era. Furthermore, technological advances are beneficial during the Covid-19 pandemic. The restricted movement had an insignificant effect on the information.

Wiratmo & Mardhiyani (2021) stated that teachers widely use social media to deliver materials. However, WhatsApp is the most commonly used online learning platform and a means of connecting with parents (Kresnamurti, Fauziyah, Syafrida, 2021). Its use as a communication medium is due to various helpful features in the learning system, namely sending videos, photos, voice recorders, sending files, and group calls (Riadil, Nuraeni, Prakoso, 2020). Hutami and Nugraheni (2020) also reported that parents use WhatsApp groups in online learning.

Early Childhood Educator

Early childhood educators are responsible for educating preschool within the ages of 3 to 6 years. They are perceived as teachers and parents at school and home, respectively. Besides, their obligations

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have been clearly regulated in Law no. 14 of 2015, including lesson plans, implementing quality learning processes, as well as assessing and evaluating the outcomes. Parents clearly understand their roles, responsibilities, and obligations. Furthermore, Rohita (2021) stated that the task of educating remains their obligation, even from the lowest to the highest academic level, especially during the global pandemic, when they were solely responsible for shaping the child's personality. The interaction between parents and children is indispensable for normal child growth because the family is perceived as a communication system and development environment from the earliest years (Marilena, 2015).

In rendering these services, parents and teachers need to work together, enabling the children to practice the knowledge acquired in school at home, especially during the current pandemic. The parents' roles become dominant compared to changing times. Although this is not an easy task, it is undeniable that their presence is helpful to the children and the teachers. As mentors, they bridge the gap between teachers and children, as well as providers of supporting learning facilities, to meet the students' spiritual needs and understanding, including supervising and motivating them (Anggraeni, Fakhriyah, Ahsin, 2021; Yulianingsih, Suhanadji, Nugroho, Mustakim, 2021). Preliminary studies discovered that the majority of parents' busy schedules at work were unable to properly carry out their duties (Azzahra, Fitriani, Desmita, & Warmansyah, 2022; Wardani & Ayriza, 2021). Various obstacles also embellish efforts to assist their children at home, including the parents' inability to understand the material, difficulties in developing their interest in learning, being impatient with them, as well as difficulties in operating gadgets, and handling obstacles related to internet service coverage (Wardani, Ayriza, 2021). However, all parents, irrespective of their various professions, agree that mentoring children during the COVID-19 pandemic is important (Ulfasari & Fauziyah, 2021).

RESEARCH METHOD

A qualitative approach was adopted, and their search subject comprised 10 parents and 4 teachers from 2 schools in South Jakarta that were selected purposively. The purposive sampling technique was described as a deliberate procedure. The respondents were selected based on certain reasons or considerations, such as the completeness of information on the research problem (Buyukozturk, 2014). This qualitative study is also considered suitable because it permits the selection of samples that meet the stipulated criteria and are in accordance with the objectives, which also increases the validity of the data obtained (Ethikan et al., 2015). It includes 1). a partner institution that has used SIPPKOM, 2). Willingness to be a respondent, and 3). Obtain permission from the head of the institution.

Data were collected by observing, interviewing, and documenting virtual zoom. Observations were made by studying the respondents when trying to access the system and using the features available in SIPPKOM. These consist of weekly and daily lesson plans, academic calendars, report cards, and applications for communicating with teachers. Interviews were carried out using questionnaires resembling google forms, and these were distributed after the respondent succeeded in accessing SIPPKOM. This includes an assessment of the SIPPKOM content as well as other relevant information needed for its development. The documentation process was carried out by taking photos of the results relating to the respondent's access to the system.

The interactive analysis model fabricated by Miles and Hubberman (2018) was adopted in this research. The stages of data analysis include data validity, collection, reduction, presentation, and drawing conclusions. Meanwhile, triangulation methods and various techniques carried out data validity and collection, respectively. Furthermore, the reduction stage was carried out by summarizing, selecting, focusing, grouping, and categorizing research data according to the theme or pattern created. Qualitative

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data was presented in brief descriptions, tables, and graphs. Finally, drawing conclusions is an effort to provide an overview of an unclear object before it is examined.
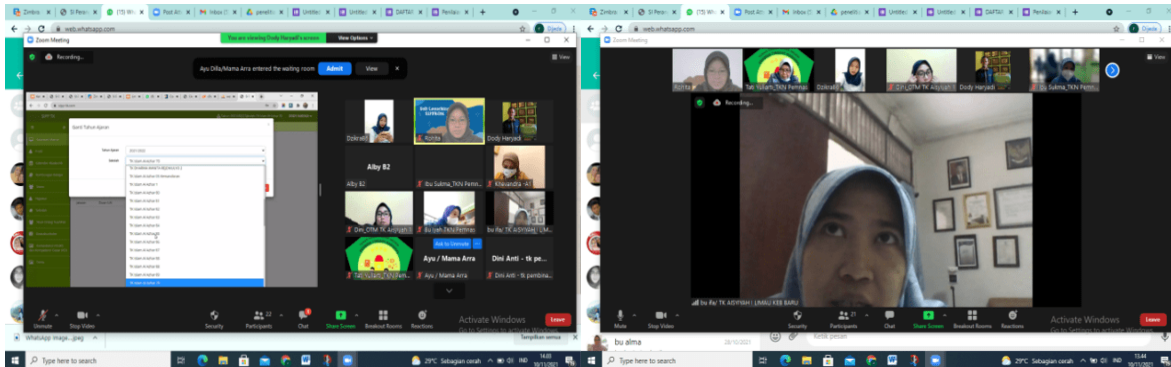

Figure 2. Observation and interview activities with respondents

Figure 3. Documentation of parental access to SIPPKOM

FINDINGS AND DISCUSSION

Information System on Learning Device and Parent-Student Communication (SIPPKOM) is an application developed under the disguise Learning Device Information System (SIPP). Its initial aim was to assist teachers in preparing learning tools regarding the weekly lesson plan (RPPM) and daily lesson plan (RPPH), as well as assessing and reporting the child's development. SIPP is also intended for school principals to monitor teachers' performance related to their readiness to carry out learning activities and automatically assess the students' achievement every day, week, or semester. Previous research reported

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that all SIPP features contained in the principal's and teachers' accounts are utilized by both parties (Rohita, Fitria, Haryadi, Bustan, 2021). The pandemic and some challenges encountered in the digital era led to the provision of an application that is also used by parents. Therefore, this helped them obtain rapid and appropriate information on learning activities and outcomes.

The need for parents to obtain learning information quickly and correctly is due to the government policies implemented during the Covid-19 pandemic regarding adopting both online and offline procedures. Therefore, parents need to be able to understand and properly explain the learning activities to their children, and they, in turn, need to complete any assigned task and send the results to the teacher as expected by the school. This is certainly not easy considering the diverse backgrounds of the parents in terms of their professions, education, and knowledge. However, the majority did not have the opportunity to consult or share their problems. SIPPKOM is perceived as an effort to fulfill the parents' needs regarding learning information as well as provide features that they use to communicate directly with teachers, especially the difficulties encountered in assisting their children while studying from home.

SIPPKOM was fabricated and designed with the System Develop Live Cycle (SDLC) and the Unified Modeling Language (UML). Additionally, UML is a language used to specify, visualize, develop, and document software systems (Abdurohman et al., 2012). SIPKOM was developed using the PHP (Hyper Text Preprocessor) programming language with the CodeIgniter framework. PHP is a server-side script added to HTML, where the working system starts with a request sent from a web page by the browser (Kustiyaningsih, 2011). Based on the URL or website on the internet network, the browser identifies the desired page and conveys all relevant information needed by the web server. This helps users to access this application wherever and whenever. Furthermore, this is one of the advantages of web-based applications (Irviani & Setiawan, 2017).

To be able to access SIPPKOM, the users, in this case, parents, need to enter the system by typing sipp-tk.com in the browser and log in using the username and password sent by the school through email, as well as write down the available validation code, as shown in Figure 2.

Figure 4. Initial Display of SIPPKOM

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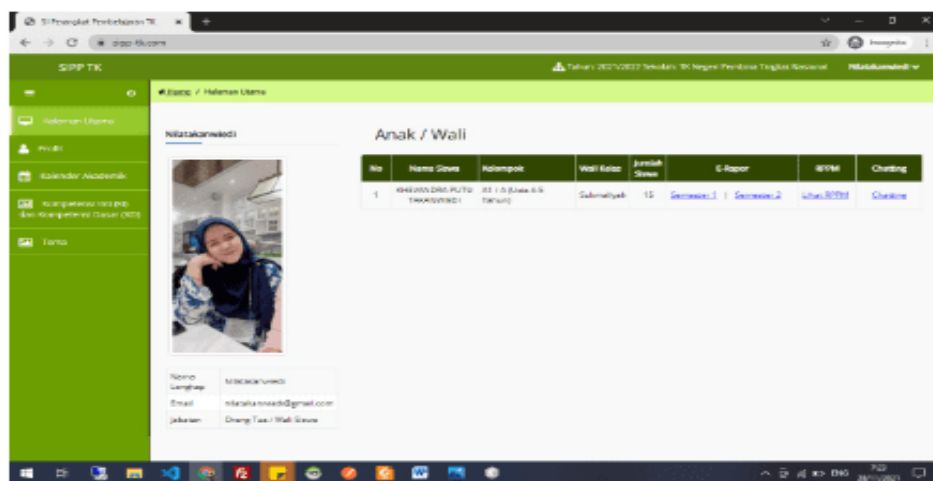*Rohita, Nila Fitria, Dody Haryadi*

Figure 5. Main page

The profile features, academic calendar, core, basic competencies, and themes located on the left in green are shown on the main page. In the profile section, parents are able to change their passwords and upload photos. The calendar is one of the features stumbled on by accessing SIPPKOM. It is a time set for student learning activities for the academic year, including the start of the session, effective study week, and holidays. The arrangement of learning time in kindergarten refers to content standards. It is adjusted to regional needs, school characteristics, the students and community requirements, and provisions from the local government. Generally, the parents socialize with the educational calendar at the beginning of the academic year through meetings organized by the school. Therefore, they tend to receive information concerning the activities carried out in some letters.

The existence of SIPPKOM certainly gives parents access to information on activities carried out by the school without having to be notified. This includes the start and completion of a new theme, which helps them access their children within a certain time.

(a)   (b)

Figure 6. (a) Display of the Weekly Lesson Plan (RPPM); (b) Display of the Daily Lesson Plan (RPPH)

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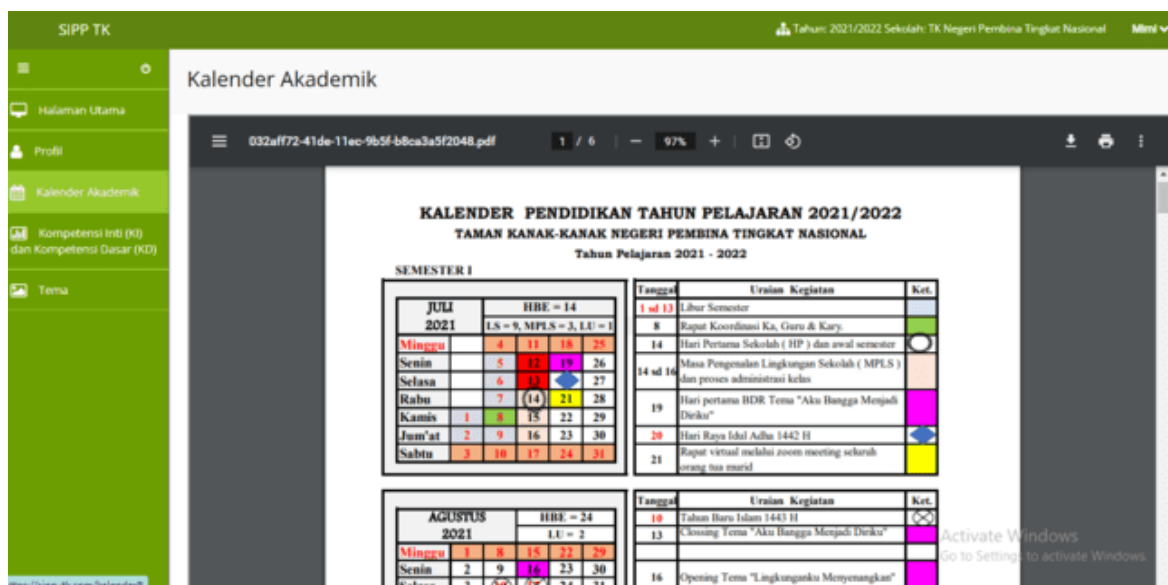*Rohita, Nila Fitria, Dody Haryadi*

Figure 7. Display of academic calendar

Core and basic competencies are abilities expected to be developed by the children after following the learning process designed through the PAUD curriculum. The SIPPKOM features aim to aid parents in accessing their children's competencies after completing the early childhood education level. It also provides information about their readiness to enroll in the next academic phase.

Likewise, the theme is a means of integrating the children's attitudes, knowledge, and skills and an umbrella that functions to frame the entire learning material provided through play activities. Each school is authorized to determine the themes given to their students based on their uniqueness as well as the children's characteristics and environmental potential. SIPPKOM also aids the parents in discovering the theme intended to be shared, which certainly gives an idea of the attitudes, knowledge, and skills that the children are expected to embrace after participating in the learning activities.

Meanwhile, in the middle part of the displayed SIPPKOM, a horizontal and vertical section contains children/guardians and identity features, respectively. In addition, through the main page, parents are able to access their children's report cards, including daily and weekly lesson plans. Its compilation is absolutely relevant and needs to be accomplished before carrying out learning activities (Rohita, Fitria, Haryadi, 2018). Parents also need to be informed to help their children complete any task given by the teacher. During the recent pandemic, parental involvement was needed for the learning process to continue (Judge, 2020). Children were also required to be stimulated to support sustainable developmental aspects.

Furthermore, parents also need to discover the relevant media to complete some tasks without worrying about information being drowned by other chats. This is because they have special access to SIPPKOM, thereby receiving firsthand information about the learning activities.

In addition to obtaining information about the teacher's lesson plans, parents also benefit from the child's development assessment in the form of an *E*-report. Gardner stated that this is an effort to obtain information concerning their individual skills and potentials, which serves as useful data for the surrounding community, in this case, the parents (Yus, 2011). This assessment also aids both teachers and parents in ascertaining their children's learning habits and development (Maryani, 2020).

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In Figure 9, information concerning the children's development is presented in the form of a checklist and narrative section. The checklist shows the accomplished achievement in the underdeveloped (BB), starting to develop (MB), developing according to expectations (BSH), and developing very well (BSB) categories. This process provides necessary information concerning properly achieving ability indicators and those needing further stimulation. Narrative assessment and photos of the children's activities are also carried out, thereby enabling parents to understand this process better. SIPPKOM also has a feature for parents to communicate with teachers, as shown in Figure 8.

Good communication is certainly necessary to support the achievement of a set goal, which is referred to as the learning process. It creates collaboration between parents and teachers, especially during the Covid-19 pandemic. Furthermore, Suryadi (2021) stated that this had a significant effect and a positive relationship with effective online learning. Interestingly, increased cooperation between parents and teachers boosts effective online learning activities.
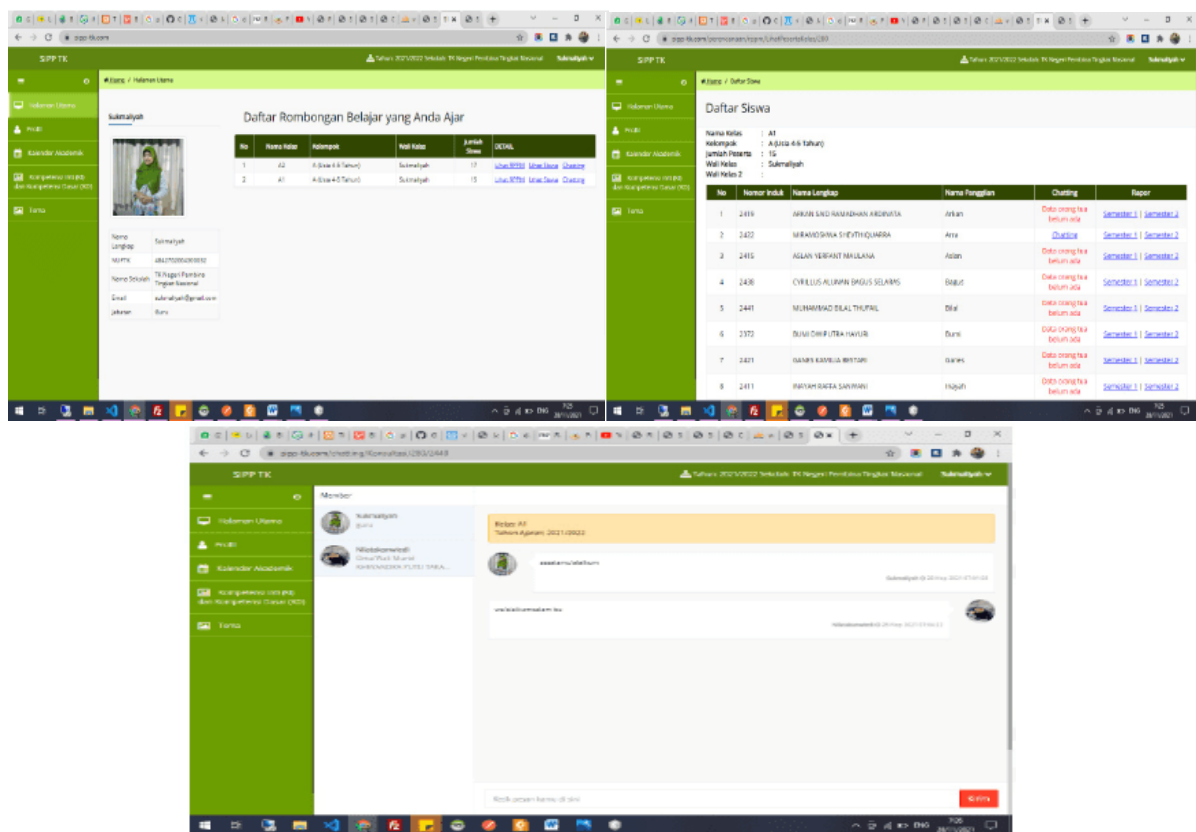

Figure 8. Display of chat menu

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TK Islam Al Azhar 85
Jl. Sukarela 1 komp. Al Azhar no. 22 Kreo Selatan
Larangan, Tangerang

Rapor

Nama Siswa   :   Andi Efendi
No Induk   :   A011
Kelompok   :   A
Semester   :   1

No	Aspek Perkembangan	Semester 1			
		BB	MB	BSH	BSB
Nilai Agama dan Moral					
1	Mempercayai adanya Tuhan melalui ciptaan-Nya			✔	
2	Menghargai diri sendiri, orang lain, dan lingkungan sekitar sebagai rasa syukur kepada Tuhan			✔	
3	Memiliki perilaku yang mencerminkan sikap jujur				
4	Memiliki perilaku yang mencerminkan sikap rendah hati dan santun kepada orangtua, pendidik, dan teman			✔	
5	Mengenal kegiatan beribadah sehari-hari			✔	

Keterangan:
BB : Belum Berkembang
MB : Mulai Berkembang
BSH : Berkembang Sesuai Harapan
BSB : Berkembang Sangat Baik

NILAI AGAMA MORAL

Anak mampu membaca alhamdulillah setelah diberi sesuatu oleh temannya

FISIK-MOTORIK

SOSIAL EMOSIONAL
KOGNITIF
BAHASA
SENI

Ekstrakurikuler

No	Kegiatan Ekstrakurikuler	Nilai
1	Drum Band	A
2	Melukis	A
3	Menyanyi	B
4	Seni Tari	B

Ketidakhadiran

No	Alasan Ketidakhadiran	Jumlah (hari)
1	Sakit	0
2	Ijin	0
3	Tanpa Keterangan	0
		0

Mengetahui,
Kepala Sekolah

Jakarta, ...
Wali Kelas

(Dina Rizqi)

(Dina Atikah / Dina Rizqi)

Figure 9. Display of *E*-report

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Graph 1 shows that all 10 respondents or parents experienced no difficulties in accessing SIPPKOM through the website. Meanwhile, in terms of accessing the RPPM, RPPH, E-report, and the academic calendar, 9 respondents stated that it was easy, while 1 person reported otherwise. However, the reason behind that response is still unknown.

Based on Graph 2, it is evident that the information provided by the school in the form of RPPM, RPPH, E-report, as well as the academic calendar is useful and in accordance with the parents' needs regarding learning activities. The parents found it easy to access SIPPKOM with either a cellphone or laptop. Based on Graph 2, it is also evident that the parents did not experience any difficulty accessing SIPPKOM while using their cellphones or laptops. The public often uses these gadgets. The results of a surv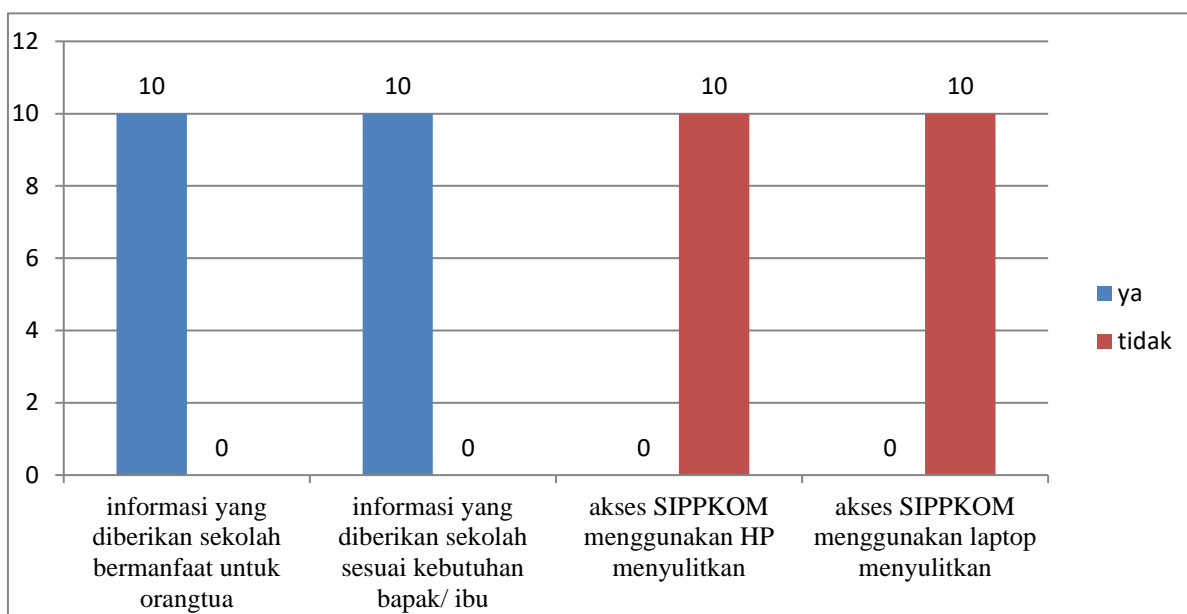ey carried out by the Ministry of Communication and Information in 2017 stated that as many as 66.36% of the population own a smartphone. Meanwhile, 53.85% have mobile phones. However, when viewed from an occupational perspective, 56.56% of housewives use smartphones, while 53.55% own mobile phones. There are more laptop users than computers, and the highest usage frequency in a day is 3 to 5 hours, as much as 39.23%, and the location of its use is mostly done at home, which is 61.72%. However, the largest number of browsing activities, relatively 74.69%, are executed by laptop, smartphone, or cellphone users (Research team, 2017). The information and data show that parents, even housewives are familiar with the use of the web. Therefore it is easy for them to access SIPPKOM to obtain learning information from schools.
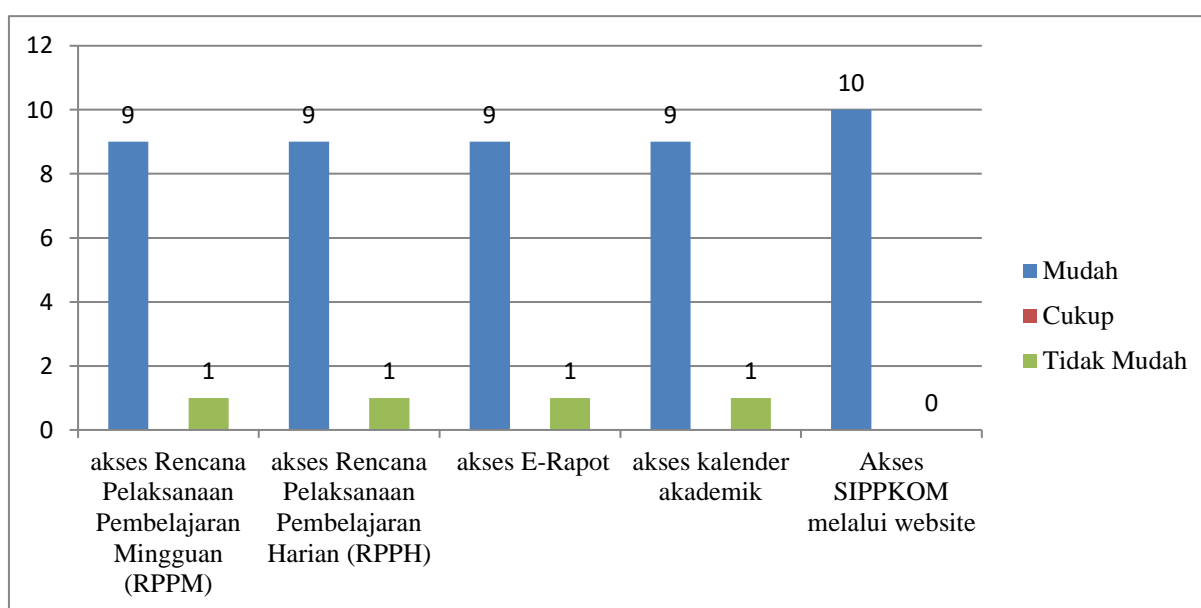
Graph 1. Assessment of SIPPKOM content

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Graph 2. Assessment of benefits and access to SIPPKOM

Meanwhile, 9 of the 10 respondents agreed that parents need to understand and use technology to obtain relevant information. The reasons given are that the rapid development of science and technology *facilitates communication and aids in effectively conveying the necessary information. This is because it seems to be inevitable in the future; therefore, there is no need to lag behind. Additionally, the learning activities delivered by the teacher are also conveyed to the children. Therefore, effective and efficient delivery is made based on technological advancement and growth. There is usually a system update every time an activity is uploaded because of its necessity. Participation is paramount because it helps in the children's development.* After understanding the advantages of SIPPKOM, the parents also made suggestions, such as the application *needs to be installed on their cell phones and its appearance needs to be beautified.*

CONCLUSION

SIPPKOM provides an opportunity for parents to obtain information conveyed by the school. Therefore, they are informed about the academic process and the relevant media used. This communication learning device also aids parents in knowing their child's developmental achievements, either in the form of a checklist or narrative section accompanied by photos of the currently executed activities. The chat feature also provides access for them to communicate with teachers to obtain information according to their respective needs. Furthermore, all the available features are easily accessed, either with a cell phone or laptop.

IMPLICATIONS, LIMITATION STUDY & FURTHER RESEARCH

The implication of the results of this study is that institutions can provide other communication platforms that can be used to convey information related to learning planning and the abilities achieved by children as a result of their assessment. The limitation of this study is that this research is only aimed at

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kindergarten institutions related to efforts to improve services for early childhood education institutions to parents by using SIPPKOM as an information system, especially in preparing learning tools and as a medium of communication between teachers and parents. Further research that can be done is to develop SIPPKOM content to provide information services to parents that can improve their knowledge, abilities, and skills, thus enabling them to optimally accompany their children to study at home.

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REFERENCES

Abdurohman, M., Kuspriyanto, Sutikno, S., & Sasongko, A. (2010). Perancangan aturan transformasi UML-systemc dalam perancangan embedded system. *Jurnal Ilmu Komputer Dan Informasi*, 3(2), 91-97. Https://Doi.Org/10.21609/Jiki.V3i2

Anggraeni, E. Y. &Irviani, R., (2017). *Pengantar Sistem Informasi.* Yogyakarta: Andi.

Anggraeni, R.N., Fakhriyah, F., Ahsin, M.N. (2021). Peran orang tua sebagai fasilitator anak dalam proses pembelajaran online di rumah. *Jurnal Ilmiah Pendidikan Dasar 8(2)*. 105-117. Doi: 10.30659/Pendas.8.2.105-117

Annisa, D.S., (2021). Analisis kerjasama orangtua dengan guru PAUD terhadap efektvitas pembelajaran online. Jurnal Jendela Bunda, 9(1), 1-9.

Azzahra, R., Fitriani, W., Desmita, Warmansyah, J. (2022). Keterlibatan Orang Tua Di Minangkabau Dalam Paud Pada Masa Pandemi Covid-19. Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini. 6(3). 1549-1561.Doi: 10.31004/Obsesi.V6i3.1796.

Buyukozturk, S. (2014). *Research methods* (15th ed.). Ankara: Pegem Academy Press.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2015). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5, 1-4. https://doi.org/10.11648/j.ajtas.20160501.11

Fauzan & Arifin, F. (2017). *Hybrid learning sebagai alternatif model pembelajaran*. Researchgate. Seminar Nasional "Profesionalisme Guru di Era Digital". 246-252.

Hakim, L. (2020). Pendampingan Orang Tua Dalam Pembelajaran Daring. Jurnal Ilmu Pendidikan Islam. 18(2) *192-220*. Doi: Https://Doi.Org/10.36835/Jipi.V18i2.3583.

Hutami, M.S., Nugraheni, A.S., (2020). Metode pembelajaran melalui *whatsapp group* sebagai antisipasi penyebaran Covid-19 Pada AUD Di TK ABA Kleco Kotagede.*PAUDIA.9(1).126-130.*Doi: Https://Doi.Org/10.26877/Paudia.V9i1.6107

Irviani, R., & Setiawan, P. (2017). Aplikasi Berbagi Pesan Berbasis Web Sebagai Media Komunikasi Di Stmik Pringsewu. Seminar Nasional Teknologi Informasi dan Multimedia.

Kresnamurti, R.H., Fauziah, D.N., Syafrida, R. (2021). Efektivitas penggunaan *whatsapp* sebagai media komunikasi dalam pembelajaran anak usia dini pada masa pandemi Covid-19. *Jurnal Pendidikan Vokasi Raflesia. 1(2).*

Kristiana M. (2020). Penilaian dan pelaporan perkembangan anak saat pembelajaran di rumah di masa pendemi Covid-19. *MURHUM: Jurnal Pendidikan Anak Usia Dini*, 1(2), 41-52.

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Kustiyahningsih, Y., Rosa, D. (2011). Pemrograman Basis Data Berbasis WEB Menggunakan PHP dan Mysql, Yogyakarta: Graha Ilmu.

Marilena, T. (2015). The role of parents in integrating their own children in society. *Procedia-Social and Behavioral Sciences*, 180, 1680–1685.
https://doi.org/10.1016/j.sbspro.2015.05.067

Miles, M. B., & Huberman, A. M. (2018). *Qualitative data analysis: A methods sourcebook* (4th ed). Thousand Oaks: Sage Publications

Riadil, I.G., Nuraeni, M., Prakoso, Y.M. (2020). Persepsi guru paud terhadap sistem pembelajaran daring melalui *whatsapp* di masa pandemi Covid-19. *PAUDIA. 9(2). 89-110.*Doi: :Https://Doi.Org/10.26877/Paudia.V9i1.6574

Rohita, Fitria, N., Haryadi, D. (2018). Pemanfaatan aplikasi penyusunan perencanaan pembelajaran (AP3) dalam penyusunan perencanaan pembelajaran bagi guru taman kanak-kanak Di Jakarta. *Jurnal Pengabdian Kepada Masyarakat. 24(2). 644-654.*

Rohita, Fitria, N., Haryadi, D., Bustan, R. (2022). Development of a learning device information system for kindergartens. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini.* 6(2). 1105-1118. DOI: 10.31004/Obsesi.V6i3.1378.

Rohita. (2021). Pengenalan Covid-19 pada anak usia prasekolah: analisis pada pelaksanaan peran orangtua di rumah. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini. 5(1). 315-326. DOI: 10.31004/obsesi.v5i1.528*

Tim peneliti. (2017). Survey penggunaan TIK serta implikasinya terhadap aspek sosial budaya masyarakat. Pusat Penelitian Dan Pengembangan Aplikasi Informatika Dan Informasi Dan Komunikasi Publik Badan Penelitian Dan Pengembangan Sumber Daya Manusia Kementerian Komunikasi Dan Informatika Republik Indonesia. Jakarta.

Ulfasari, N., Fauziah, P.Y. (2021). Pendampingan orang tua pada pendidikan anak di masa pandemi Covid-19 berdasarkan profesi orang tua. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini. 6(2). 935-944.*Doi: 10.31004/Obsesi.V6i2.1119

Wardani, A., Ayriza, Y. (2021). Analisis kendala orang tua dalam mendampingi anak belajar di rumah pada masa pandemi Covid-19. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini. 5(1).* 772-782. Doi: 10.31004/Obsesi.V5i1.705

Wiratmo, L.B., Mardhiyani, N.L. (2021). Komunikasi empatik dalam relasi guru dengan orang tua pada pembelajaran daring di masa pandemi studi pada SD Muhammadiyah 08 Kota Semarang. *Jurnal Sosfilkom, Sosial, Filsafat, Dan Komunikasi. 15(1). 1-7.*
Doi: Https://Doi.Org/10.32534/Jsfk.V15i01.1957

Yulianingsih, W., Suhanadji, Nugroho, R., Mustakim. (2021)Keterlibatan orangtua dalam pendampingan belajar anak selama masa pandemi Covid-19. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini. 5(2). 1138-1150*. Doi: 10.31004/Obsesi.V5i2.740

Yus, A. (2011). Penilaian perkembangan belajar anak taman kanak-kanak. Kencana Prenada Media Group, Jakarta.