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RESEARCH PAPER

Pedagogical Use of WhatsApp: Teachers, Views and Experiences

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ABSTRACT

Technology has made it easier to connect, interact, explore and learn. The smartphone is a unique and valuable device. WhatsApp is the most popular mobile app used for multiple purposes worldwide. The study aimed to get the teachers' views of the Public Colleges of Punjab, Pakistan, BS (Physics) regarding the pedagogical use of WhatsApp and their challenges. The study used an interpretative paradigm, qualitative method and phenomenological design. The data was collected through in-depth unstructured interviews and purposively analysed using a thematic coding inductive approach. The target population was all the teachers (Female/Male) of Public Colleges of Punjab, Pakistan, BS (Physics) Programme, and the sample was drawn from the target population purposively till saturation (12 college teachers =6 Females and 6 Males). The study recommended the pedagogical use of WhatsApp by determining some boundaries for students to interact.

Introduction

We are living in the digital age, and all the fields of life have been greatly inspired by technology (Amjad et al., 2024, a, b, c; Shafqat & Amjad, 2024; Ong et al., 2024). The educational systems, teaching-learning practices, curriculum development, supervision, leadership, policy and planning, administration, communication sources and styles all have been changed. Higher education teachers have also been influenced by fastly growing communication sources, tools and apps. WhatsApp is vital in sharing teaching and learning practices (Qureshi et al., 2023; Tabassum et al., 2024; Tabbasam et al., 2023). WhatsApp, as a supportive element, boasts up teachers and pedagogies. Teachers can quickly interact with their students, even at home. They can solve their problems and guide them for improvement. They can clear their concepts, answer their questions, share relevant educational visual content, and inform them about institutional policies and rules, the process of learning, curricular and co-curricular activities, and instructions to fulfil their learning needs and achieve their educational goals.

Munir et al. (2021) evaluate that "WhatsApp is a social media app as well as an instrument to send and receive messages, files, videos, and images using the internet." They indicate that "in Indonesia, 87 % of people use the internet." According to Darnawati and Uke (2016), WhatsApp is valuable because "it benefits students because they can access it anywhere at any time. Another advantage for students who are learning online is that "WhatsApp uses fewer data bundles than other applications. It has many advantages like (1) exchange of faster and easier information between teachers

and students and (2) social media interactions encourage open spaces and new communication patterns between lecturers and students". The researchers explored that "almost all of respondents thought WhatsApp was a great instrument for educational purpose during the Covid-19 outbreak. Since most students and lecturers used WhatsApp as a means".

Literature Review

Alaboud (2021) evaluates that "Today mostly communication depends on mobile applications and WhatsApp is the most popular app. Technology has facilitated education at a large scale, and students use WhatsApp not only for communication with their teachers but also for educational purposes".

Darnawati and Uke (2016) highlight that "with the advancement of technology, use of social media has become important and has grown Fastly. As a "user-friendly social media platform", WhatsApp is among the most popular apps. The study participants are familiar with social networking and frequently use it. (Muzaffar, et. Al., 2020). WhatsApp can be used in the classroom as a teaching and learning tool. This study indicates "how college students use apps to solve their academic problems. Instructional problems also have been solved by the media. It is a great challenge for a teacher to convey his viewpoint to his students when media has many plate forms to communicate, and students are free to learn".

Bouhnik and Deshen (2014) elaborate that "Class WhatsApp groups have four basic uses: (1) fast communication with students, (2) platform for learning, (3) encourages social atmosphere, and (4) develops interaction and sharing among students. WhatsApp is rapid in nature, has a reasonable price, is simple to use and is easy to access. It is a technological benefit for us. The researchers explain how WhatsApp has rapidly grown into smartphone software. Brain Acton and Jan Koum, two Ex. Yahoo! Workers first found it in 2009. Initially, the app had few users but rapidly grew to 250,000. It now claims over 700 million users, the biggest online messaging app. Bothnic and Dechen (2014) further state that "WhatsApp has many features that allow users to send and receive messages to individuals or groups. It can share text messaging, attached photos, audio and video files, and site address connections. The app has gained over 350 million users in the previous two years by reaching a peak of popularity. WhatsApp can promote collaboration, motivation, accessibility and cooperation among group managers and members".

Al-Hussain (2023) elaborates in his study on "how WhatsApp can be used for student learning. According to the researcher ", as a useful technology, WhatsApp can be recommended in the educational system and learning process due to its appealing and dependable user experience. The researcher says, "The Saudi Electronic University is making it unique among Saudi Arabia's educational institutions by offering its students a complete online learning practice".

Gachago et al. (2015) express the advantages and disadvantages of WhatsApp in the learning process. According to them, "WhatsApp has advantages like teaching and learning in South African educational practices. It has drawbacks in the form of mental overload." The researchers express that "students can learn through their experience by using WhatsApp, which has the quality of flexibility, availability, and open access anytime and anywhere." Binti-Mistar and Embi (2016) explore the usage of WhatsApp in Malaysian higher education and conclude that "WhatsApp is a vital communication tool for teachers and students. WhatsApp exchanges information, multimedia content,

and ideas between students and teachers. It allows students to express themselves and access all information anytime".

Afful and Akrong (2020) stress the "effects of WhatsApp on students, performance". They explored that "91.51% of students rated WhatsApp as a helping tool in their studies, and there is an outstanding correlation between students, performance and Use of WhatsApp. Due to the use of WhatsApp, students performed well and obtained a good CGPA". Ahmad (2019) conducted his study in Yemeni settings and described "how WhatsApp helped students to improve their reading and writing skills. It also helped them to improve their Grammar and vocabulary. The study participants liked WhatsApp as a most favourite and effective instructional source that motivated students to learn".

Gasaymeh (2017) defines the disadvantages of WhatsApp as (1) It demands smartphones, so people need to buy it (2) the continuous supply of news can create frustration (3) for receiving and sending complimentary messages, Internet access must be obtained (4) only group admin can add participants or allow admin titles to others is the group admin".

The findings of the study by Mulyono et al. (2021) indicate that most students felt engaged and accepted in using social media to improve their learning. Moreover, this study examined the probable reasons that can stimulate the progress of receiving and connectivity. Many variables have been persistent in the study, like students' professed helpfulness, the convenience of learning support, their motivation, and how they connect to their friends. Students are motivated to use social media platforms like WhatsApp progressively if they believe they can use it to enhance learning (Amjad et al., 2020, 2021, 2022, a, b; 2023, a, b, c).

Bouzaiane and Dayananda (2023) discovered that "students, self-confidence increased in their learning by using WhatsApp. Many participants considered "WhatsApp a useful tool for learning". "Students can get knowledge quickly by effectively using WhatsApp with proper time management. One of the main benefits of WhatsApp is that "it is a flexible instructional tool". According to the participants of the study, "WhatsApp helped students to utilise time competently and speedily understand the subject content without being physically present in the classroom. Furthermore, some participants highlighted that "although the use of WhatsApp is very helpful in their learning, still it had an opportunity of mistake".

Susilo and Sofiarini (2021) examine that "WhatsApp has inclusive ability in remote learning, and people feel it is easy to use WhatsApp due to affordable data packages. WhatsApp can be promoted as a supportive learning element in the current educational system. WhatsApp has many benefits, such as exchanging educational material and files, sending messages, and maintaining group phone numbers. WhatsApp group has excellent capacity to adjust many students". The study further highlights that "laptop can be used to deal WhatsApp groups by taking pictures of barcodes on WhatsApp Web. Students, active participation in their learning makes WhatsApp groups full-time engaging. Teachers, creativity and innovation are required while lesson planning and sending it in WhatsApp groups to involve their students in learning. Students can send voice messages in WhatsApp groups".

Kushwaha and Jhawar (2018) elaborate that "WhatsApp is an instructional and fun tool. Students' interaction with teachers and students in groups enhances collaboration. Mobile learning is considered an easy and simple way to learn. The

researchers discussed how students improved their math competencies by using WhatsApp. WhatsApp is a great source of collaborative learning."

In his study, al-Abiky (2021) evaluates that "as a transactional platform, WhatsApp plays a vital role in boosting up students, desires to learn and participate and promotes the social relationship. Students can express and share their thoughts, concerns, and views with others".

The study of Gamji and Salman (2019) focuses on the "use of WhatsApp for learning and academic purposes from the perspective of connective theory. According to the researchers, "WhatsApp is the fastest and most simple way to distribute large amounts of material, and many students use it. WhatsApp positively affects peer learning and helps them to improve their studies. WhatsApp is a great "social influencer application" that connects families and massive groups. Encouraging active participation, dialogue, and discussion with students via WhatsApp can enhance their learning. Most of the students (the study participants) are satisfied with the use of WhatsApp. It positively impacts their reading habit and helps them improve their performance. There are many advantages of using WhatsApp for learning in students like it increases students' confidence, regularity, performance, communication skills, quick sharing of learning material, and help in learning difficulties".

Sangeeta and Anshwari (2019) evaluate that "due to WhatsApp use in learning process teaching become a continuing process and it builds a good relationship among students and teachers. WhatsApp saves time, energy, money and paper. The use of WhatsApp can be beneficial if students use it within limits. There are also some drawbacks to WhatsApp use for learning, such as controlling irrelevant messages, selecting proper words and language for communication, negatively impacting students' formal writing habits, and maintaining decorum in groups. According to the researchers, "Due to technology, teachers' role has been improved as a facilitator. Having transformed WhatsApp, it is a rapid communication source. WhatsApp is the most popular app because it can create groups for interaction. 90% of youth use mobile phones and WhatsApp, and it helps them prepare for exams. 70% of students learn through WhatsApp groups. They construct their knowledge through computers or mobile. Teaching activities also have been extended by the use of WhatsApp".

Material and Methods

The study was conducted in an interpretative paradigm, qualitative method, and phenomenology design to explore the views and experiences of teachers (Female/Male) of Public Colleges of Punjab, Pakistan, BS (Physics) programme regarding pedagogical use of WhatsApp by conducting in-depth unstructured interviews, purposively till saturation. The target population was all the teachers (Female/Male) of Public Colleges of Punjab, Pakistan, BS(Physics) programme, and the sample was drawn from the target population purposively till saturation (12 teachers, 6 Female and 6 Male). Data was collected through in-depth unstructured interviews and analysed using an inductive method of thematic coding analysis.

Population of the study

The study's target population was all the teachers (Female/Male) of the BS (Physics) programme at Public Colleges in Punjab, Pakistan (total physics teachers = 1125).

Sample

The sample was drawn from the target population purposively until saturation. The researcher interviewed 12 teachers (6 females and six males).

The Procedure of the Study

The researcher collected the data through in-depth unstructured interviews of teachers (female/male) of Public Colleges of Punjab, Pakistan, and the BS(Physics) programme purposively until saturation.

Data Analysis

The researcher analysed the data using the inductive method, thematic coding analysis. After analysis, theory and patterns were developed.

Delimitation

The study was delimited to the teachers (Female/Male) of Public Colleges of Punjab, Pakistan, BS (Physics) programme.

Legal and Ethical Considerations

The researcher obtained informed consent from the participants and authorities before conducting the interviews. The respondents were assured of their anonymity and confidentiality. They were also given the right to withdraw from the study process.

Results and Discussion

Teachers (Female/Male) in the BS(Physics) programme of Public Colleges in Punjab, Pakistan, frequently use WhatsApp for communication and educational purposes. The pedagogical use of WhatsApp creates fast and quick interaction and develops a close connection between teachers and students. Principals have made WhatsApp groups to share directions from HED (Higher Education Department), HEC (Higher Education Commission), and affiliated university guidelines about course outlines and programme goals. HODs (Heads of the Departments) further have created groups within the department to achieve course goals, adoption of pedagogy, learning practices and semester requirements, scheme of studies, and curriculum development. There are also faculty groups to share pedagogies, updates and latest discoveries in their subject. Teachers have created a separate WhatsApp group to communicate and interact with students. In the WhatsApp group, teachers share instructions about course goals, student enhancement, cognitive, affective, psychomotor development, and pedagogical content.

According to the participants of the study, "pedagogical use of WhatsApp can consist of following activities:

Announcements

86 % of the study participants (teachers) use WhatsApp to share with their students' announcements and news about the timetable, room changes, test dates, curricular and co-curricular activities, functions and ceremonies details and information, fee deposit information, and roll number slips.

Course outline

The study's main participants (teachers)use WhatsApp to share course outlines and goals with their students.

Semester Schedule and Demands

78 % of study participants (teachers) share semester schedules and details with their students via WhatsApp.

Clear Instructions

90% of the study participants (teachers)claim to "share clear instructions with their students in their WhatsApp groups regarding content in class work".

Assignments

100 % of the study participants (teachers) use WhatsApp to assign tasks or assignments to their students.

Presentations

80% of the study participants (teachers) like to send their presentations to students, and they send them via WhatsApp for group discussion, while 20% send their presentations only for study purposes.

Feedback

75% of study participants (teachers) like to give feedback to their students by using WhatsApp.

Group Work

80% of the study participants (teachers) were assigned group work and discussion using WhatsApp.

Peer Learning

70% of study participants (teachers) like peer-to-peer assignments, presentations, project work and problem-solving.

Quizzes

50% of the study participants (teachers)manage quizzes at the end of the chapter or the end of the month.

Sharing of Visual content

Most study participants (teachers)use WhatsApp to share videos, animations, documentaries, images, and videos of experiments relevant to the topics of their subject.

Videos of Lab Experiment

50% of the study participants (teachers)make a video of their lab practical and share it with their students using WhatsApp for further observations or understanding

of the process. Some teachers also share YouTube videos of practical work and discuss the process. Sometimes, simulation video clears the students, concepts better than bookish knowledge or verbal information.

Students Engagement

Most teachers explain that they "try to engage their students in WhatsApp group by asking questions or responding regarding class work."

Equal Participation

According to the study participants (teachers), "equal participation of the students is a great challenge for teachers while using WhatsApp, but they do their best by asking questions or responding".

Motivation to Learn Novel Practices

Most study participants (teachers) explained that "using WhatsApp motivates their students to learn novel practices easily."

Regular Updates about College Curriculum

Most study participants (teachers) narrate that "they regularly update their students about college curriculum by using WhatsApp."

Student Encouragement to Interact

At a large scale, study participants (teachers)explain that "they positively respond towards students, sharing and participation and encourage them to interact."

Assessment (Results/Grading)

Most study participants (teachers) highlighted that "they inform their students about results, grading, and evaluation both qualitative and quantitative aspects by using WhatsApp".

Share links to Educational Websites

Most participants of the study(teachers)explain that "they share the link of educational websites like Bright Storm, OCWMIT.EDU, BY, JU, S, Britinca, Corsera, Academia, etc., with their students to get e-books, e-notes or helping content".

Challenges Faced by The Teachers by Using WhatsApp

According to the participants of the study they have faced challenges like "unneeded questions by students, their mutual irrelevant interaction, misuse of contact numbers, students equal participation and involvement, students violation of rules and terms set by teachers, functional contact numbers of students, ethical issues, less participation or non-participation of students, poor internet connection, selection of proper content as per course outline and needs of students ,clear instructions, suitable words or language to communicate with students, diverse learning styles and individual differences, cultural context, manage load of information, access to all students, selection of proper tone, words or context ,dealing with I.T. issues, give Individual proper feedback to every students, keep data or contacts privacy, manage teachers, own work

load, proper relationship between teachers and parents and fullfill their expectations, determine boundaries to interact and communicate, teachers, own digital knowledge and skills, and mis interpretation of content by the students".

By addressing these challenges, teachers can smoothly use what they have for pedagogical and learning purposes.

Conclusion

The participants of the study teachers(female/Male) of Public Colleges of Punjab, Pakistan, BS(Physics)are successfully using WhatsApp for pedagogical purposes at a large scale; their students also like this app to interact with them to solve their educational problems and get guideline for further improvement. The study's findings indicate WhatsApp is a faster, free, interactive channel for all stakeholders and helps them achieve their goals.86% of teachers share announcements, 80% teachers share semester schedule and demands, 90% teachers claim to give clear instructions, 100% teachers give assignments, 80% of teachers share presentations in groups for discussion, 75% of teachers provide feedback to their students about their assignments and presentations, 80% teachers assign group assignments and presentations, 70% teachers like peer to peer work in group, 50% teachers like quizzes sharing in groups, 50% teachers make lab work videos and share in the WhatsApp group, Mostly teachers share in groups update of college curricular and co-curricular activities. Most teachers have experienced WhatsApp motivating students to learn novel practices by sharing visual content, and students' involvement, participation, and interest in their studies have increased. On a large scale, teachers encourage students to ask questions in WhatsApp groups, answer them, and share their results. Teachers are facing problems and challenges by using WhatsApp as a pedagogical tool like equal participation of students, unneedy irrelevant questions and chat, violation of rules set by teachers, ethical issues, data privacy, poor internet, diverse learning styles, functional WhatsApp contacts of students, clear instructions, selection of suitable content and language to interact with students.

Recommendations

Study participants (teachers) strongly recommend using WhatsApp to communicate with their students and share audio and video content to support their pedagogy. They claim that "teaching of science can be effective the using different audio/video aids. WhatsApp can be a supportive tool as a free and fast communication source. Teachers and students can use this app more effectively to share teaching-learning practices, mutual interaction and problem-solving. Teachers. Knowledge and skills, command of their subject, the art of teaching, and transmission of knowledge and skills positively affect the pedagogical use of WhatsApp. Poor internet signals, unneeded and irrelevant conversations, unethical issues, discouraging attitudes to dealing with diverse learners and needs, non-democratic behaviour, and non-participation or less participation of students can negatively affect the pedagogical use of WhatsApp. For Successful pedagogical use of WhatsApp, teachers should manage the information load, group ethics and terms and conditions relevant to the topic and subject information or content, encourage students' participation and questioning and develop reflective practices, use simple language and terminology, clear instructions, Assign a valuable task for learning and exam needs.

Participants of the study were teachers (Female/Male) of Public Colleges in Punjab, Pakistan. BS (Physics) Programme strongly recommends using WhatsApp for

pedagogical and learning purposes due to its easy, free and faster interactive tool. They feel it easy to create a group once and communicate with their student the whole semester. Following are further recommendations:

- Correct data of students and WhatsApp numbers for creating groups.
- Maintain contacts' privacy, determine terms and conditions, and establish group ethics. Notice and act quickly when rules are violated.
- Appreciate healthy interaction from parents and nicely respond. Block numbers of contacts sharing unethical chat or images after three warnings.
- For WhatsApp to provide better service, strong internet signals are necessary.
- Involve all students by asking questions or responding to teachers' opinions.
- Manage group discussions about the class work or current teaching topics.
- Encourage students to question and develop reflective practices.
- Share relevant and comprehensive content.
- Controll controversies and ambiguities in discussion.
- Respect students' cultural diversity.
- Maintain justice and equality and promote a democratic culture for all students.
- Updates students about exam schedules, institutional policies, and changes in the scheme of studies well in time.
- Check your WhatsApp chat daily and frequently.

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