A Study of Students' Experiences of Mobile Learning

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Abstract- These days mobile phones are ubiquitous with everyone and there is lot of craze for messanger applications. Researchers has oftenly found their students asking them "Do you use WhatsApp?" or "Are you on we chat?". This tickled their mind and made them think how these mobile applications can help in education. This very thought triggered the first step to this research. During session 2013- 2014, 37 student of B.Ed. (Bachelors in Education) programme were selected. All the selected students were using smart phones and mobile application named 'WhatsApp'. A WhatsApp group was created and students & teacher interacted with each other through it during 40 days teaching practice schedule. After the end of teaching practice schedule, students were asked to fill in the questionnaire on the experiences of WhatsApp m learning and for knowing their attitude towards it. For in depth analysis, Interviews of 10 randomly selected students' was also taken. Findings of the study show that student find learning through WhatsApp very interesting and educationally useful. They found that their social interactivity with their peers and teacher has increased moreover they learned collaboratively. The attitude of the students toward WhatsApp m learning was favorable. The study also revealed that married students found learning through WhatsApp disruptive and that they prefer learning in traditional classroom as it does not collide with their family time.

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A Study of Students' Experiences of Mobile Learning

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I. Introduction

It is no hidden fact that technology has taken over the society in last few years. Everyone is using technology, from children and teenagers to adults and elders. Technology is vital in today's world and makes everything easier. It has transformed our ways of communicating, socializing, playing, shopping and everything we do. These profound changes are placing increasing pressure on the traditional models of teaching and learning. Due to ever-increasing and diversified needs of the students technological advancements are also taking place in the field of education every day. While e-learning is still being used as a supplementary tool to the conventional forms of learning, a new method of knowledge addition called m-learning has emerged in the global scenario.

M- Learning refers to the "provision of education and training involving portable or mobile devices such as Smartphone's, Personal Digital Assistants (PDA's), palmtop's, i pod's, digital cameras, pocket computer's , Mobile Phone's. etc."

Mobile devices provide significant opportunities to help learners become more autonomous and also have the potential to change the delivery of teaching and learning in higher education. (Isil Boy and Gary Motteram, 2013). Mobile learning can both complement and conflict with the formal education processes. On the positive end, learners can extend their classroom learning activities to homework, field trips, and museum visits by reviewing teaching materials on mobile devices; and or collecting and analyzing information using handheld data probes.(Park Hyungsung). Liak (2011) believes that "mobile learning is about changing the way we teach with the way students' best learn."

The concept of mobile learning applied in this research is defined as a teaching learning interchange happening through mobile phones only. Among all the mobile devices, mobile phone is chosen because it is probably the most popular and widely used mobile device in the world, especially in India. India is the second-largest mobile phone user with over 900 million users in the world (Press Information Bureau, Government of India). As per the Telecom Regulatory Authority of India (TRAI), there were 910.16 million mobile phones and 938.34 telecom service (including landlines) users in India at the end of May 2014.

Mobile phones as M Learning devices are more prevalent and the most popular of mobile devices. Mobile phones are making our lives easier and it has become very hard to imagine life without mobile phones because people are accustomed to them (Guoqiang Cui, Shuyan Wang, 2008). Mobile phones are so advanced and smart that they actually perform almost the same functions and features as personal computers. Prensky (2004) has defined mobile phones as not just communication devices sparking new modalities of interacting between people, they are also particularly useful computers that fit your pocket, are always with you, and are always on. Like all communication and computing devices, mobile phones, can be used to learn.

There are several features of mobile phones like Voice, SMS, Browsing, Downloading, Gaming and variety of applications. With the introduction of smart phones, the popularity of mobile applications has raised and its usage has become increasingly prevalent among mobile users. One such application which is very

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popular among smart phone users these days is WhatsApp messenger. According to NDTV news, India is the largest market of WhatsApp messenger; and according to DNA news report, there were over 60 million Indian users of WhatsApp in August 2014.

WhatsApp Messenger is a proprietary, cross-platform instant messaging subscription service for smart phones and selected feature phones that uses the internet for communication. In addition to text messaging, users can send each other images, video and audio media messages as well as their location using integrated mapping features (Wikipedia). WhatsApp messanger has the following collaborative features: (A. Bere, 2012)

1. Multimedia: It allows the user to exchange videos, text messages, images and voice notes.
2. Group Chat: It supports the interaction of up to 50 group members.
3. Unlimited Messaging: The number of messages you can share on WhatsApp is unlimited. The application uses 3G/EDGE internet data plan or Wi-Fi to ensure continuous data transmission across platforms.
4. Cross Platform Engagements: Interactants with different devices (personal digital assistants, Smart phones, Galaxy tablets) can message one another through various media (text messages, pictures, videos, voice notes).
5. Offline Messaging: Messages are saved automatically when the device is off or outside coverage area.
6. No Charges involved: there is no charges involved for using WhatsApp as it uses same internet data plan which is used for email or web browsing.
7. Pins and Users Name: WhatsApp user need not to remember passwords or username as it works via phone numbers and integrates with users' address books.

WhatsApp has become very popular and besides all, this Application is highly addictive and can create a great impact on regular users, and apart from that it can leave a trace that becomes difficult to control and cure" (Johnson Yeboah and George Dominic Ewur, 2014). According to the article in The Hindu "this application is hit among the college going students and it seems to be handy for even the teachers who are using it to clear doubts of their students after the college hours."

Motiwalla (2007), in his research related to the use of instant messaging for educational purposes, suggests that popularity and support for mobile devices within the student population is great and that the majority of students at universities benefit from texting through mobile learning devices. Bere (2013) examined the use of WhatsApp in a South African university. The students gave the positive feedback and claimed that it

was an easier way to communicate with their teachers and the rest of the class and that it was also fun.

A study conducted among students in Spain, examined the use of WhatsApp in English language studies. The students reported a rise in motivation and a greater enthusiasm for reading in a foreign language (Plana et al., 2013). The research conducted by Aicha Blehch Amry (2014) demonstrated the effectiveness of WhatsApp social networking in comparison with face-to-face learning in the classroom.

Overall, WhatsApp has become a shared platform that enhances accessibility, encourages cooperation, and intensifies motivation to take an active part in academic assignments (Bere, 2013; Chipunza, 2013).

II. Purpose of the Study

India is a developing country and after considering the technological environment here, the study will only use mobile phone among other mobile devices as this device is ubiquitous with most of the people in India. The study is not just an interesting technological experimentation but it is undertaken for meeting the educational needs of students, staff and course of B.Ed. programme according to the available technological choices.

The targeted group is B.Ed. student because in B.Ed. programme students' move away from the campus for their teaching training schedule and during this period lot many things come up in the campus. They require continuous update of what is happening in the campus. During training period they also face several problems related to class management and control for which they need continuous guidance from their teachers. Moreover they lose touch with the previously learned lessons. Similarly teachers also fails in keeping track of what students are doing and what problems they are facing.

In such a case if they are provided with administrative messages, classroom management tips, short summaries of previously learned topics, and provided opportunity to ask queries related to the problems they are facing it will prove useful and add on education for them. This will also help the teachers in knowing what students are doing and what problems they are facing. Moreover it will also encourage collaborative learning by providing the opportunities to work in a group using their mobile devices.

Thus the idea behind the study is to motivate the teachers and students' to use m learning in education. It is generally seen that teachers find use of mobile phones in classrooms as irritating and disturbing rather than useful for education. Moreover teachers do not share any enthusiasm to except it in teaching learning practices. This can be overcome by convincing the teachers that any inconvenience offered will be

offset by convenience offered. And similarly students will be taught etiquette to be aware of when and where the use of these devices is acceptable. Once this will be experienced, we anticipate a change in mindset that will eventually lead to next stage of m learning: using the technology in their teaching. The rationale behind this research is that the introduction of mobile devices will be useful in teaching learning practices and for taking first step into m learning. the current research is expected to provide transition to m learning.

III. Design of Whatsapp Mobile Learning Process used in Study

Discussion below shows the process employed by the researcher in WhatsApp m learning

Phase 1 (Motivation): During I phase of the research, students' were motivated to be in touch with teacher through WhatsApp. It enabled to remove hesitation and fear of student.

Phase 2 (Creation of WhatsApp group): In II Phase of the research, WhatsApp group named "Students' of VCE" was created and students' were added in the group with their permission.

Phase 3 (Teaching of Ethics): Ethics of the group were decided and communicated to the students'. Some of the ethics were:
i) no use of absurd language
ii) no use of it inside the classroom
iii) no personal remarks

Phase 4 (Implementation): Here messages were sent and received using WhatsApp. The messages were sent related to

- Administrative updates or messages.
- Sending ad on knowledge messages related to lessons learned prior to teaching practices.
- Class room management tips.
- Students' queries and problems were also resolved during teaching practice.

Phase 5 (Feedback): Students' were asked to give their feedback about the experience of WhatsApp mobile learning through questionnaire. Follow up interview (n=10) was conducted.

IV. Types of Communication

All the possible types of communication were used the group. Students' and teacher frequently shared videos, audios, words, emoticons, images, photographs from their notebooks and URL links.

V. Objectives

1. To study the student's Perception on ubiquitous aspect of WhatsApp m learning.
2. To study Educational benefits of WhatsApp m learning.
3. To explore Collaborative learning in WhatsApp mobile learning atmosphere.
4. To study the Social interactivity in WhatsApp mobile learning atmosphere.
5. To study the Attitude of students' towards WhatsApp mobile learning.

VI. Research Methodology

Current study is an experimental research employing single group post test only design. Research is conducted during teaching practice schedule of B.Ed. programme in the academic session 2013- 2014. The research is based on mixed methodology; with quantitative approach the study also employed qualitative approach, as the study narrates student's experiences on WhatsApp mobile learning. Total 37 B.ed. teacher trainees (32 females and 5 males) of Maharshi Dayanand University, Haryana, India; batch 2013 -2014 participated in the research. All participants were using WhatsApp and participated willingly. They were free to withdraw from the study at any given time. It should be noticed that none of the participants had previously used WhatsApp application for teaching and learning.

VII. Data Collection

Two data collection tools namely questionnaire and interviews were employed. Questionnaire is developed using five points Likert Scale (Strongly Agree; Agree; Neutral; Disagree; and Strongly Disagree). Total 30 questions covering five areas (Ubiquitous Learning; Educational Benefits; Collaborative Learning; Social interactivity in WhatsApp mobile learning atmosphere; and Attitude towards WhatsApp mobile learning) were developed. The study is conducted in a teacher education college of Maharshi Dayanand University, Haryana, India and total 37 B.Ed. trainees (who had smart phones with internet facility and were using WhatsApp application) filled in the questionnaire.

Furthermore, after the quantitative study is made, qualitative data is collected using interview. Ten interviews were conducted with randomly selected students from the experimental group (N = 37). The interviews took the form of a friendly chat and interviewees were not aware that they are being interviewed. The information gathered throughout the interviews were not categorized in a predetermined fashion, but evolved gradually as the interviews continued (Bouhnik & Deshen , 2014).

VIII. Research Findings

In this study, along with questionnaire, data was also collected through interviews. After interviews were conducted (involving ten students), a descriptive qualitative analysis is carried out in order to identify the effectiveness of WhatsApp m learning in teaching

learning. Research findings of the study are categorized under.

a) *Ubiquitous Learning*

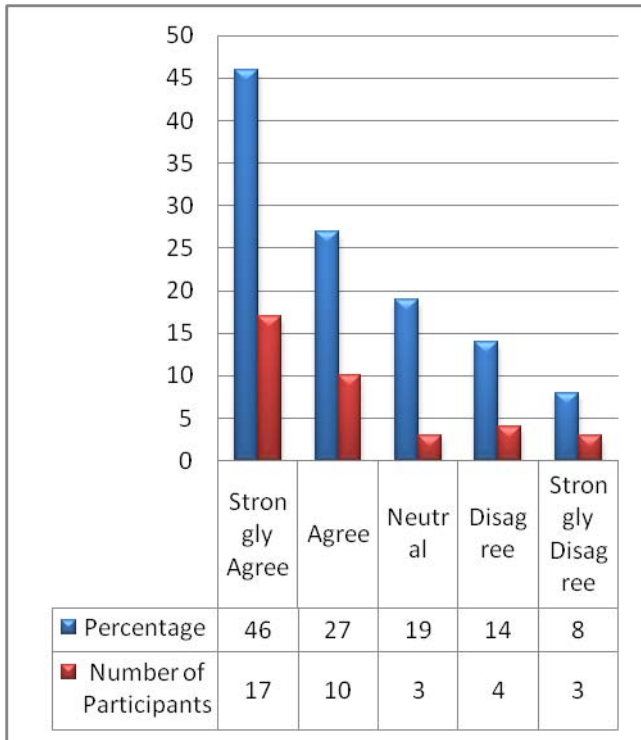|	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
■ Percentage	46	27	19	14	8
■ Number of Participants	17	10	3	4	3

Figure.1

Ubiquitous learning is learning anytime, anywhere. 73% of the student found learning anytime, anywhere convenient whereas 22% disagreed to it and 19% were neutral about it. Follow up interview confirmed the questionnaire results and disclosed that learning 24/7 and anywhere is interesting to students. Most of the discussions on the group were late night and students' supported the fact that m-learning increases the flexibility of accessing a variety of resources for learning independently at anytime and anywhere. (Jaradat, 2014)

Disagreement came from those participants who were married and doesnot want compromise on family time.

Interviewee 3: "I am married and can't participate in discussions all the time as I have other responsibilities as well. I missed most of the discussions and sometimes felt irritated with continuous beep of my mobile phone. I feel discussions should be left only for classroom and feel more comfortable in learning in classroom. WhatsApp m learning does not guarantee learning to me."

Therefore it can be said that married participant supports traditional classroom and does not want to compromise on family time. The result of the research is similar to Bere. A. (2012).

b) *Educational Benefits*

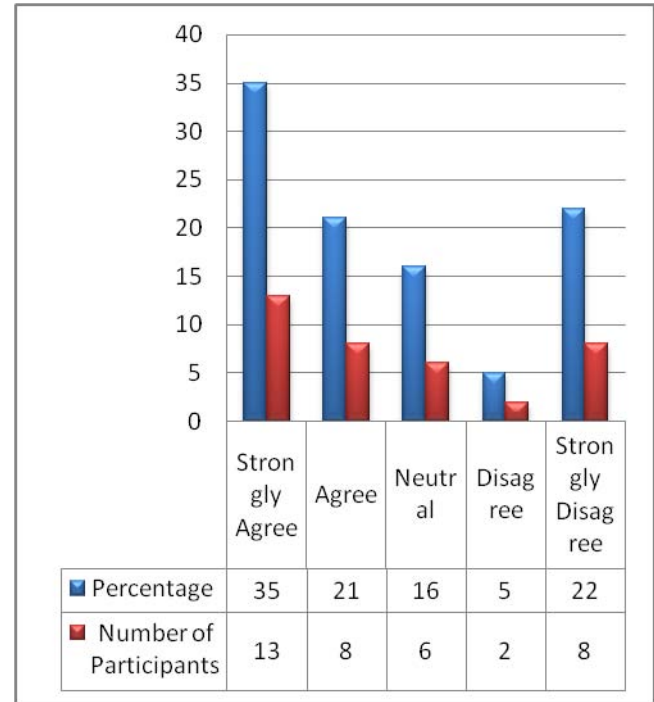|	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
■ Percentage	35	21	16	5	22
■ Number of Participants	13	8	6	2	8

Figure. 2

56% of the participants agreed that learning through WhatsApp m learning has educational benefits, 27 % disagreed to it while 16% were neutral to the concept. Some of the educational benefits mentioned by the students' during interview are: immediate feedback to the problem; learning on move; deeper clarity on issues; revision of previously learned topics; learning from others problems; healthy discussions; and availability of learning material all the time.

But those who disagreed to the concept of learning through WhatsApp m learning gave the following reasons: preference to entertainment with WhatsApp rather than education with WhatsApp; problem of one cannot be problem of all; and misleading discussions and posts at times. Neutral response during interview was: learning anyways i.e. whether through WhatsApp or in classroom has its own benefits.

c) *Collaborative Learning*

82% of the participants agreed that learning through WhatsApp m learning is collaborative learning. During interview it was disclosed that students' were eager to post videos, audios, texts on the problems and were also learning from others posts. Moreover they were always willing to solve others problems. Those who disagreed gave the reason that not everybody shared the content in the group. 5% Neutral response came from those students' who found learning in classroom also a collaborative effort.
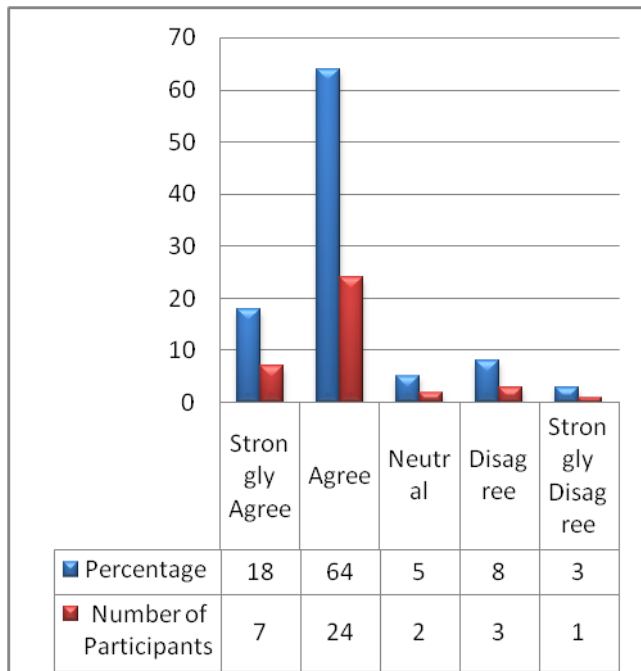
	Stron gly Agree	Agree	Neutr al	Disag ree	Stron gly Disag ree
Percentage	18	64	5	8	3
Number of Participants	7	24	2	3	1

Figure. 3

d) Social Interactivity

81% of the participants agreed that WhatsApp m learning has increased social interactivity in the group while 11% were neutral to it and 8% disagreed to the concept. Interview disclosed that those students' who never had conversations with each others are now friendly with each other. The findings also show that WhatsApp m learning has helped in breaking hesitation between teacher and students'; and students' are now more comfortable in asking questions from teacher.
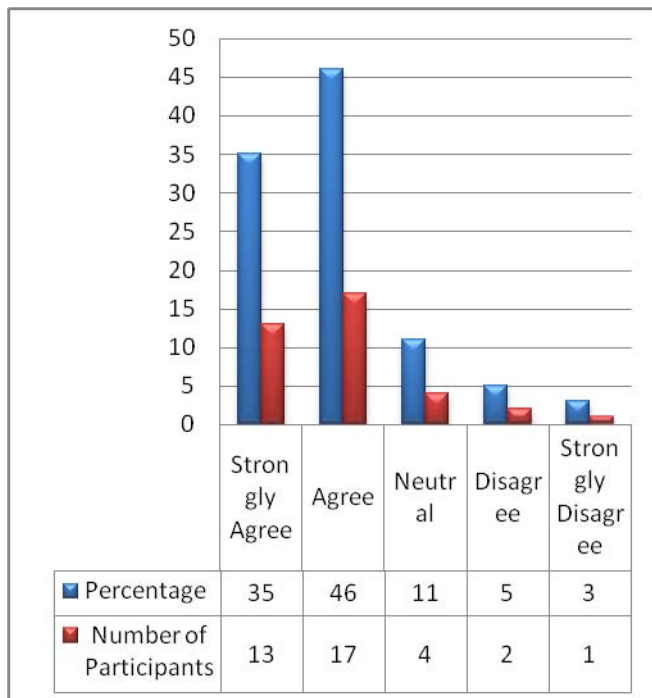

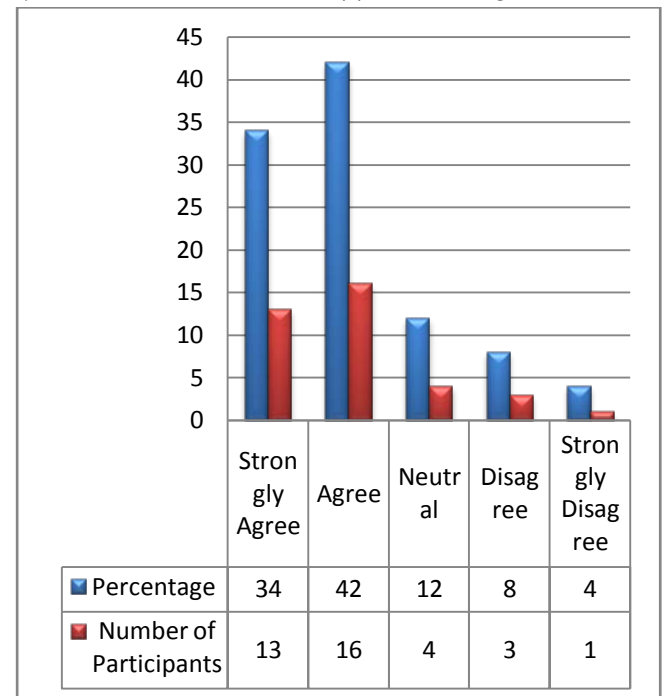|	Stron gly Agree	Agree	Neutr al	Disagr ee	Stron gly Disagr ee
Percentage	35	46	11	5	3
Number of Participants	13	17	4	2	1

Figure. 4

e) Attitude towards WhatsApp M Learning

	Stron gly Agree	Agree	Neutr al	Disag ree	Stron gly Disag ree
Percentage	34	42	12	8	4
Number of Participants	13	16	4	3	1

Figure. 5

76% of the participants had favorable attitude towards WhatsApp m learning. They found WhatsApp m learning a valuable teaching method; a valuable learning aid and highly personalized instructional medium. Students' gave preference to WhatsApp m learning over traditional classroom and are willing to continue using WhatsApp In future for teaching learning.

The reason behind unfavourable attitude of the 12 % participants is small mobile screens, preference to entertainment over edutainment with WhatsApp and family priorities among married participants.

IX. Discussion

Researches shows that many educational stakeholders have positive attitude towards the adoption of MLearning in educational situations (Bere, 2012; Bouhnik and Deshen, 2014; Demirbilek, 2010; Cochrane and Bateman, 2010; Guy, 2009; Cornelius & Marston, 2009). Results of this study are in conformation made by the above mentioned researchers since the majority of students' found learning anytime and anywhere very useful. A small number of married students find learning everywhere and anytime disruptive to their family life.

When educational benefits were concerned, students' found it beneficial as it provides immediate feedback to the problem; opportunity to learn on move; provide deeper clarity on issues through discussions; revision of previously learned topics; learning from others problems; and availability of learning material all the time.

Most of the students agreed that learning through WhatsApp m learning is a collaborative learning

experience and it has increased their social interactivity with their peers and teacher. Overall students' shows a favorable attitude towards WhatsApp m learning. They found WhatsApp m learning a valuable teaching method; a valuable learning aid and highly personalized instructional medium. Students' gave preference to WhatsApp m learning over traditional classroom and are willing to continue using WhatsApp in future for teaching learning.

Rajasingham (2009) concluded that with increasing sophistication in information technology, educational paradigms are challenging conventional teaching methods. Findings of this study also support this as students' finds that learning through WhatsApp m learning is making their lives easier since they can learn anytime and anywhere hence contributing to the overall success of teaching and learning.

X. Conclusion

The research has attempted to find the perception and attitude of students' (teacher trainees) towards WhatsApp m learning by creating WhatsApp learning atmosphere. The findings indicate that student finds WhatsApp m learning ubiquitous aspect interesting and educationally useful. Apart from it they also find it a collaborative learning experience and helpful in increasing their social interactivity with peers and teachers. A positive attitude of students towards WhatsApp m learning was highlighted from the study. Students' gave preference to WhatsApp m learning over traditional classroom and has also shown their willingness to use it in the future.

Moreover, according to the findings of the study, WhatsApp m learning is not suited to married students and they prefer traditional classroom teaching learning. This is because they it disruptive to their family life and time. This is in line with the findings of Bere, 2013.

As of now, it is possible to say that students have positive attitude towards using WhatsApp in education as it enables them to co-operate and work as a team which is not fully developed in the traditional classroom. But if we want WhatsApp m learning to become a common tool teaching and learning, there will be need of further researches in identifying its educational and pedagogical goals as well as for concluding its theoretical and practical implications. The study has dealt with teacher trainees of particularly B.Ed. programme (a Graduate course in teacher education); further researches should examine other courses as well.

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