Leveraging Communication Skills Through the Usage of Smart Phones Among the Students

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Abstract
Recent advancements in smart phone technologies have created unique opportunity to learn and teach. Critics used to focus the drawbacks of mobile addiction and its consequences which on other side suggest going back and rejecting the technology advancement. When it comes to the usage of technology, going back is not a solution. At the same time using technology as a learning tool is not just a cool new thing. More than quarter of the student population in higher education has an access to smart phones and the number continues to rise every year. The next generation of students needs to meet and surpass the expectations of next generation educational standards. This will happen with a tremendous effort from both the sides of students and faculty alike to learn and use technology effectively. This paper reports on recent research undertaken at an Indian state university in order to understand the awareness level and influential rate of useful mobile application to leverage the communication skills among the student community. A survey questionnaire was developed and deployed based on the literature study and the data collected were analyzed quantitatively. Upon analysis, these data validate that students are well aware of mobile learning applications but the usage differs as those practices are not encouraged as a part of formal learning.

Keywords: Smart phone; Mobile apps; Mobile learning; E-learning; Communication skills.

1. Introduction

Managers, to be effective, need to develop four basic communication skills, and any training or development programme should incorporate them. These skills can be learned on the job or on formal programmes, but require continual practice and reinforcement so that they become part of manager's 'tool box' when interacting with other people. They are:

1. Listening, and giving and receiving feedback.
2. Assertiveness
3. Resolving conflict
4. Solving Problems.

As a whole these skills are eventually developed over a period of time and not to be acquired immediately. Developing the communication skills among the student community essentially require their will to learn. You can take a horse to water, but you cannot make it to drink. If this is lacking, no matter how relevant, attractive, well designed your courses are, there will be no positive outcome.

In this digital arena, smart phones are part and parcel of the student community. These gadgets pose a double-edged problem to the teachers and instructors in the classroom as they can provide unimaginable access to information. Students engaged in a lot of unforeseen distractions such as texting, playing games, engaged in social networking sites and other activities which are available in this evolving digital terrain.

A recent statistical survey made by the Pew Foundation shows that the average number of daily texts (text messages, sharing photos, videos, etc.) for older teen aged students were increased from 60 to 100 for the period of 2009 to 2011 (Lenhart, 2012). Moreover, 64% of teenagers possessing cell phones or texting during the class hours, even in the schools where cell phones are technically banned (Lenhart et al., 2010).

Thus, these cell phones and other digital gadgets keep on posing unique communication challenges for both users and also those with whom the users interact. Many critics contend that these activities can possibly decrease the key social skills like effective learning. As said by a commentator, "we considered telephones as a tool for communication, but the hard truth is they are just the opposite." Skenazy (2009).

Some other views insist that new pattern of communication style is spreading now which involves quick learning, quick processing and responding to simultaneous multiple inputs (Davidson, 2011). There are many possible ways through which these digital communication tools can be used to influence teaching practices and

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learning. Schuck and Aubusson (2010) Intense research on this arena on understanding the impact of these gadgets in classroom communication can bring out fruitful outcomes.

2. Literature Review
2.1. Various Features in Smart Phone and Their Usage

Modern smart phones are having special features and numerous applications (mobile apps) which were not at all imaginable years ago. People use phone only for the purpose of voice communication and now the scenario changed (Ishii, 2006). College students can access the Internet, send or receive text messages, check email, and even video chat with others quite literally from the palm of their hand. In addition, students can access a variety of social network sites (SNS) from their mobile phones. Lot of mobile applications developed exclusively to develop the communication skills, academic activities, student participation in interactive sessions etc. Slideshare, Quora, Pinterest holds a pool of academic data. Traditional Wikipedia site is also available in the format of mobile application.

Discussion Forum, blog, review for the products purchased are few activities which can trigger the individuals to express their opinion and made them to cross the limitations for opening up in a social network. Scholars (Boyd and Ellison, 2007) explain that SNS are online services that allow people to create a profile, create a list of other users who share a connection with the user, and view the lists of connections created by others within that system.

2.2. Classroom Communication Vs Learning Through Smart Phone

Recent studies exploring the effects of texting/posting on student learning outcomes have relied on information processing theory see (Mayer, 1996) as a basis for arguing that texting can cause distractions that hamper student learning. Briefly, information processing identifies attention, working memory, short-term memory, long-term memory, and meta cognition as key resources used by individuals when they learn new information. Because learning is a process, diminished capacity with any single resource can impact other resources. Thus, in the case of texting/posting, students' attention can be divided, which can distract attention from on-task behavior. In turn, information processed in working/short-term memory may be incomplete or inaccurate, which could lead to inaccurate or insufficient storage of information in long-term memory.

Although not life-threatening in the classroom, texting/posting produces negative consequences for students and instructors. Burns and Lohenry (2010) found that both students and instructors identified mobile phone use as a distraction in class, and Campbell (2006) found that students and instructors perceived the ringing of cell phones in class as a problem. Although texting is considerably more covert than actual telephone conversations, a growing body of literature suggests that it is equally problematic.

2.3. Engaged Productively Through Social Network

A clear shift is occurring in the way mobile learning is interpreted. The emphasis is on "learning with mobile devices", for instance, by creating authentic learning experiences to solve real-life problems. Mobile devices are affordable and portable; they require no startup time and very little maintenance, and are easy to use Mylläri et al. (2011). A high level of personal ownership leverages their benefits. Since people can learn in their own pace and within their communities, they learn in context, and they can immediately apply what they learn. With mobile technology, learning is more learner-centered since learners can determine what they learn and can readily access information from the Internet (Chou et al., 2012; Liu, 2007; Norris and Soloway, 2008; Sharples et al., 2010). As the students use the technology to learn, the system will determine their preferences and style, as a basis to prescribe appropriate learning materials. Teachers can easily update learning materials that are in electronic format and can share them with learners immediately. The increasing availability of open educational resources allows learners to access learning materials at no or minimal cost.

The new generations of learners make it crucial to implement mobile learning in education. Young people are important drivers; as they become more aware of technology-mediated learning, their attitudes change toward learning through technology (Isaacs et al., 2013). Since they already use mobile technology for a variety of activities, they will expect to be able to use their existing mobiles to access learning materials.

3. Research Objectives
1. To study the various features available for developing communication skills through the usage of smart phone.
2. To find the level of awareness of various features available for developing communication skills among the smart phone users.
3. To analyze the level of influence of various features available to leverage the communications skills among the smart phone users.
4. To offer possible suggestions for utilization better utilization of smart phones on leveraging communication skills.

4. Research Method

A quantitative survey was designed in July 2018 consisting of 14 questions. It was divided into four sections: 1) student demographics; 2) level of acceptance of factors associated with mobile phone usage; 3) awareness, usage and influence of various mobile apps; and 4) awareness, usage and influence by specific activities through smart phone usage.

The research instrument was initially piloted on a small sample of students and a few minor revisions were made. Few additional questions about the factors of smart phone usage and additional applications were included in the revised survey instrument. Later the survey was administered using the online survey tool, 'FourEyes'. Survey link is given to the students of Faculty of Management, Alagappa University, Karaikudi. This includes first and second year M.B.A students, M. Phil and PhD Scholars

Participation was voluntary and no incentives were offered. A total of 122 potential participants accessed the online survey and after removal of unusable responses, a sample of 97 participants was retained.

5. Research Findings

M.B.A students made up to 80 percent of the sample and remaining 20 percent by M. Phil and PhD Scholars. The sample consisted of more females (73 percent) than male participants (27 percent) as the number of female students is greater than male students. Age of the students ranged from 22 to 36.

Furthermore, the literacy level of most of the participant's parents was up to school level (65 percent) and 10 percent of the participant's parents were not having any formal education. Only the remaining has other education ranging from diploma to professional. The results are presented in Table 1.

The Duration of smart phone usage is more than 1 year for half of the respondents. Thus the usage of smart phone is widely accessible among the student community. The impact of smart phone usage in communication skill leveraging activities was discussed in the second part of the survey.

Table-1. Demographic Profile of the respondents

S. No	Variable	Classification of the Variables	Frequency N=97	Percentage
1	Gender	Male	24	24.7
		Female	73	75.3
2	Age	18 - 24	69	71.1
		25 - 35	21	21.6
		Above 35	7	7.2
3	Qualification	PG 1st Year	38	39.2
		PG 2nd Year	37	38.1
		M.Phil	9	9.3
		PhD	13	13.4
4	UG Specialization	Computer Science	9	9.3
		Science	31	32
		Commerce & Management	17	17.5
		Engineering	22	22.7
		Arts	18	18.6
5	Locality of Residence	Rural	28	28.9
		Urban	32	33
		Semi Urban	37	38.1
6	Parent's Literacy Level	No Formal Education	8	8.2
		School Level	63	64.9
		Graduates	21	21.6
		Professionals	5	5.2
7	Duration of Smart Phone Usage	Less than 1 Year	11	11.3
		1 – 3 Years	31	32
		3 – 5 Years	27	27.8
		More than 5 Years	28	28.9

Hypothesis: There is no significant difference between Duration of smart phone usage and communication skill leveraging factors.

Various factors are discussed among the respondents for deriving the influence of smart phone usage in leveraging communication skills. Influence on reading habits, Influence on listening capacity, Influence on using the smart phone as a listening aid, Influence on written communication, Influence on grammar efficiency, Influence on courtesy level of the respondents, Influence on presentation skills, Influence on usage of vocabulary, Influence on the way of expressing the opinion, Influence on the response time in a conversation, Influence on using th smart phone for recorder function are the different factors discussed.

Table-2. Difference between Duration of smart phone usage and communication skill leveraging factors

S. No	Preference Factors		Sum of Squares	df	Mean Square	F	Sig.
1.	Reading Habits	Between Groups	1.414	3	.471	.711	.548
		Within Groups	61.597	93	.662		
		Total	63.010	96			
2.	Listening Capacity	Between Groups	2.282	3	.761	.951	.420
		Within Groups	74.439	93	.800		
		Total	76.722	96			
3.	Learning aid	Between Groups	6.478	3	2.159	3.620	**.016***
		Within Groups	55.481	93	.597		
		Total	61.959	96			
4.	Written Communication	Between Groups	.475	3	.158	.177	.912
		Within Groups	83.442	93	.897		
		Total	83.918	96			
5.	Grammar Efficiency	Between Groups	.316	3	.105	.137	.938
		Within Groups	71.766	93	.772		
		Total	72.082	96			
6.	Courtesy Level	Between Groups	3.927	3	1.309	1.800	.153
		Within Groups	67.620	93	.727		
		Total	71.546	96			
7.	Presentation Skills	Between Groups	4.187	3	1.396	1.548	.207
		Within Groups	83.834	93	.901		
		Total	88.021	96			
8.	Vocabulary	Between Groups	2.676	3	.892	1.482	.225
		Within Groups	55.984	93	.602		
		Total	58.660	96			
9.	Express Opinions	Between Groups	1.902	3	.634	1.034	.381
		Within Groups	57.005	93	.613		
		Total	58.907	96			
10.	Response Time	Between Groups	1.255	3	.418	.497	.685
		Within Groups	78.229	93	.841		
		Total	79.485	96			
11.	Recorder Function	Between Groups	2.873	3	.958	1.139	.338
		Within Groups	78.219	93	.841		
		Total	81.093	96			

*significant at 0.05% level

From the above table it shows that, relating to the factors that leverage communication skills, out of eleven factors, only one factor that influence the respondent in using smart phone acts as a learning aid show a significant difference with the average duration of smart phone usage, since the significant value is less than the "P" value

(0.05%). Hence the null hypothesis is rejected. It shows that different duration of smart phone usage has the same level of influence in various factors that leverage communication skills.

Third part of the analysis deals with the awareness level of the respondents about the various mobile applications which are designed to enhance the user's communication skills in different ways. Many mobile applications are identified through the review and listed in the study. They are as follows:

- Vocabulary related applications like Grammerly, Vocabulary, Hello English, PowerVocab, Little Words, Word to Word etc.,
- News related applications like Inshots, BusinessLine, Google Newsstand, NewsDog etc.,
- Academic applications like Harward Business Review, Competition Success Review etc.,
- Wikipedia,
- Quora,
- Scribd,
- Pinterest,
- Slideshare,
- Proquest,
- Mckinsey Insights,
- LinkedIn are the list of mobile applications.

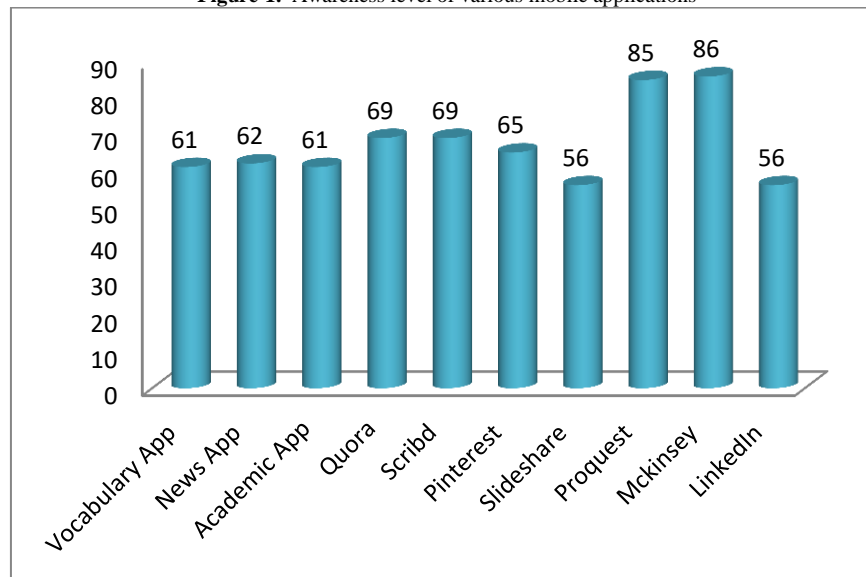**Figure-1.** Awareness level of various mobile applications

Figure 1 depicts the awareness level of different mobile applications. Among the listed mobile apps, respondents are having awareness for almost all the applications and the usage rate also differs with individuals. The influence of these applications on leveraging the communication skills is also calculated and they differ based on the usage rate.

Final part of the analysis deals with different activities on modern smart phones which can leverage the communication skills. Various activities like participating in discussion forums, using pre-recorded lectures with power point slides, participating in different puzzles, games and quizzes to do self-marking, accessing academic course materials through mobile applications, being a part of virtual classrooms, doing instant messaging, downloading podcasts, watching live lectures on video streaming, blogging for expression of views are some of the factors considered for the analysis.

Table-3. Correlation between usage rate of mobile apps and variables related to the influence of activities in leveraging communication skills

		Usage	Forum Influence	Powerpoint Lecture Influence	Self Marking Influence	Multimedia Lecture Influence	Course Material Access Influence	Virtual Classroom Influence	Instant Messaging Influence	Podcasts Influence	Live Lecture Influence	Blog Influence
Usage	Pearson Correlation	1										
	Sig. (2-tailed)											
	N	95										
Forum Influence	Pearson Correlation	.154	1									
	Sig. (2-tailed)	.136										
	N	95	97									
PowerPoint Lecture Influence	Pearson Correlation	.132	.719**	1								
	Sig. (2-tailed)	.202	.000									
	N	95	97	97								
Self Marking Influence	Pearson Correlation	.119	.560**	.630**	1							
	Sig. (2-tailed)	.252	.000	.000								
	N	95	97	97	97							
Multimedia Lecture Influence	Pearson Correlation	.150	.572**	.681**	.635**	1						
	Sig. (2-tailed)	.146	.000	.000	.000							
	N	95	97	97	97	97						
Course Material Access Influence	Pearson Correlation	.140	.484**	.526**	.538**	.591**	1					
	Sig. (2-tailed)	.176	.000	.000	.000	.000						
	N	95	97	97	97	97	97					
Virtual Classroom Influence	Pearson Correlation	.142	.701**	.630**	.492**	.596**	.469**	1				
	Sig. (2-tailed)	.170	.000	.000	.000	.000	.000					
	N	95	97	97	97	97	97	97				
Instant Messaging Influence	Pearson Correlation	.165	.401**	.543**	.523**	.549**	.518**	.551**	1			
	Sig. (2-tailed)	.110	.000	.000	.000	.000	.000	.000				
	N	95	97	97	97	97	97	97	97			
Podcasts Influence	Pearson Correlation	.184	.551**	.421**	.467**	.496**	.373**	.575**	.650**	1		
	Sig. (2-tailed)	.075	.000	.000	.000	.000	.000	.000	.000			
	N	95	97	97	97	97	97	97	97	97		
Live Lecture Influence	Pearson Correlation	.122	.480**	.464**	.412**	.524**	.484**	.545**	.647**	.626**	1	
	Sig. (2-tailed)	.238	.000	.000	.000	.000	.000	.000	.000	.000		
	N	95	97	97	97	97	97	97	97	97	97	
Blog Influence	Pearson Correlation	.209*	.477**	.495**	.474**	.501**	.390**	.365**	.601**	.641**	.576**	1
	Sig. (2-tailed)	.042	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	95	97	97	97	97	97	97	97	97	97	97

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis: There is no relationship between Usage of the smart phone and Influence level of Communication Skill Leverage among the students

The above table reveals that, comparatively positive correlation at 5 % level of significance having positive relationship only with the participation in blogs and usage level of Smart phone for the purpose of leveraging communication skill with a Pearson value of 0.42.

The above table reveals that all the variables like Discussion forums, Pre recorded lectures with PowerPoint slides, Self Marking quizzes, Mini recorded lectures, Course Material Access, Virtual Classroom participation, Instant Messaging, Podcasts and Live Lectures does not have any influence in leveraging communication skills among the respondents.

6. Conclusion

Mobile applications or apps are small pieces of software, generally platform specific, that run on mobile devices. Their strength lies in the fact that they are specifically designed to accommodate the constraints (for

example, limited processing power and small screen size) of mobile devices. Over half of the respondents, already used apps for some purpose. There are a number of apps that can facilitate informal learning and leverage communication skills. Students are already using some of these, by providing a space for students to share their own experiences and recommendations for apps will help both the educators and other students find useful apps. Various activities involved with the usage of these mobile apps can transform the time spent for entertainment into time spent for leveraging communication skills. This trend can also function as an informal support portal to develop their communication skills.

The goal of this research paper was to understand and examine the impact of smart phone usage in leveraging the communication skill of the students. We found that students who were using various mobile applications on their smart phone frequently tend to develop more awareness towards many activities which can influence the user to enhance their soft skills and the communication process.

These findings provide clear evidence that students who use their smart phones for accessing productive mobile apps and involved in practicing various activities can enhance their communication skills than the students who abstain from using these mobile applications in their smart phones.

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