

**Improving Access To Research Supervision and Supervisors: Use Of  
Email In The Supervisory Relationship Among Selected Distance  
Education Research Students Of Makerere University, Kampala, Uganda.**

**By**

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## **ABSTRACT**

The Distance Education (DE) programme of Makerere University (MAK), Uganda is designed to widen the potential of DE for access to learning for development. Research students on the Bachelor of Commerce collect data from business enterprises, analyse it and apply it in the communities. Using email in this exercise saves time in supervision since scattered students can have access to their supervisors anytime. Using a questionnaire on a purposively selected sample of students and small businesses, findings showed that use of internet creates an opportunity for distant students to access their supervisors, progress on their reports and keep in touch with the business owners. Students can therefore have a positive experience of their own learning at a distance and improve their relevance in being able to apply the findings to improve performance of business enterprises. These findings indicate that email can be an effective medium of improving access to learning for development. However, there was a difference between actual usage and planned usage. Students expected immediate feedback, high marks and fulltime interaction with their supervisor. Limited access to internet peers meeting physically with supervisor and need for clarity led to some students not using email. It is recommended that supervisors visit centres where research students cannot be reached by email, sensitisation be done to encourage students and tutors to use internet for supervision, public private partnerships be made between the university and the business community and more study centers with internet connectivity be opened up.

## **1.0 INTRODUCTION**

The use of email communication in Distance Education (DE) student support has been appreciated over the years (Lee *et al.*, 2003) attempting to close the gap between learners and tutors who are separated in space and time (Bbuye 2005).

Makerere University (MAK), a dual mode institution, has been running DE degree programs since 1991 (Aguti, 2000:p.256). One of the programs is the four year Bachelor of Commerce (B.Com) (External) program in which students are required to present a research report. It is designed to widen the potential of DE for access to learning for development. Students reside and have got jobs in different scattered locations of the country where they do research, interacting with business owners and managers, investigating problems and finding solutions to them. Using email in this exercise saves time in supervision since they can have access to their supervisors anytime. Currently, interaction between supervisors and students is mainly face-to-face. Students travel from several locations to meet their supervisors, who in most cases are busy.

Although internet usage has increased in MAK and in Uganda at large, there is a debate as to whether it can be used as an effective research supervision tool capable of increasing access to MAK's B.Com program. Use of email to supervise research was tested on a cluster of students. However, some students used it in the first week of supervision and abandoned it. This could be due the various technology acceptance constructs which are believed to determine usefulness and attitude of users towards technology.

### **Technology Acceptance Theories**

Several theories have been developed to explain the acceptance of technology. The Innovation Diffusion Theory points out relative advantage, compatibility, complexity, trialability and observability (Dillon & Morris 1996) which can be applied at individual level to determine technology acceptability (Rogers 1986). Moore and Benbasat (1991) identify voluntariness of use, image, relative advantage, compatibility, ease of use, trialability, result demonstrability, and visibility.

The Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975) emphasizes that an individual's behavior is determined by his/her beliefs that performing a given behavior will result in a given consequence, attitudes, subjective norms and intentions. Theory of Planned Behaviour (TPB) by Ajzen (1991) adds perceived behavioural control to the TRA (Dillon and Morris 1996). Other factors such as domain expertise, domain experience, system experience, gender and intelligence also influence usage (see Ramamurthy *et al.*, (1999); Fuerst and Cheney (1982); Dambrot *et al.*, (1988); Dallion (2001) and Alavi and Joachimsthaler (1992)).

Using the concept of collaborative technology, Dennis *et al.*, (2003) identify technology characteristics, individual and group characteristics, task characteristics and situational

characteristics. They emphasize social presence as the most important factor for activities requiring high personal involvement.

The Technology Acceptance Model (TAM) presented by Davis (1989) is the most widely acceptable theory and incorporates perceived usefulness, perceived ease of use, attitude towards using technology and subjective norm as key predictors. Schepers *et al.*, (2005), Lee *et al.*, (2003) and Dillon and Morris (1996) assert that the most important factors in TAM are perceived usefulness, that is, the degree to which a user believes that using the system will enhance his/her performance and perceived ease of use, which is the degree to which the user believes that using the system will be free from effort. These have an impact on attitude towards the system and behavioral intentions which is the strongest predictor of actual use (Davis *et al.*, 1989).

Given these theories, the study sought to establish the factors influencing use of email in supervision and whether it can increase access to learning for development. It considered perceived usefulness, perceived ease of use and social presence since they are considered to be the most important indicators. If the use of email for supervision is embraced, many students will stay at their work-places and residences during research and be able to apply the findings in several companies spread across the country hence improving access to learning for development.

## 2.0 METHODOLOGY

An exploratory study was carried out where a supervisor opened up an email address, informed students he was supervising about it and demonstrated to them how it can be used. This was done in the hope that they will interact more frequently with the supervisor and among themselves. Using snowball sampling, students who were introduced to this method were purposively traced and selected. Data was collected using the questionnaire method before the method was introduced and two months after it was introduced and analysed.

## 3.0 FINDINGS

### 3.1 Characteristics of Respondents

The students selected were of varying age and gender as shown in the table below;

Table 1: Age and gender of respondents

Age Bracket	Gender			
	Male		Female	
	Frequency	Percentage	Frequency	Percentage
20 - 29	8	80	2	100
30 - 39	2	20	0	0
40 and above	0	0	0	0
Total	10	100.0	2	100.0

Source: Primary data

Most of the respondents fell in the age range of 20 – 29 years followed by 30 – 39 years. Most students were male.

### 3.3 Students' Access to Internet and knowledge of the supervision email address

Of the respondents, 80% had access to email while 20% had no access and had to leave their work places to be able to meet the supervisor. They all knew the email address and the password used to operate it.

## 3.4 Findings on email Communication in supervision and its Effectiveness

### 3.4.1 Frequency of use of email in supervisory relationship.

Students sometimes used email in the supervisory relationship as shown below;

Table 2: Frequency of use of email in supervisory relationship

Response	Frequency	Percent	Cumulative Percent
Never	5	41.67	41.67
Once a week	2	16.67	58.34
Daily	0	0.00	58.34

Sometimes	5	41.67	100.00
Total	12	100.00	

Source: Primary data

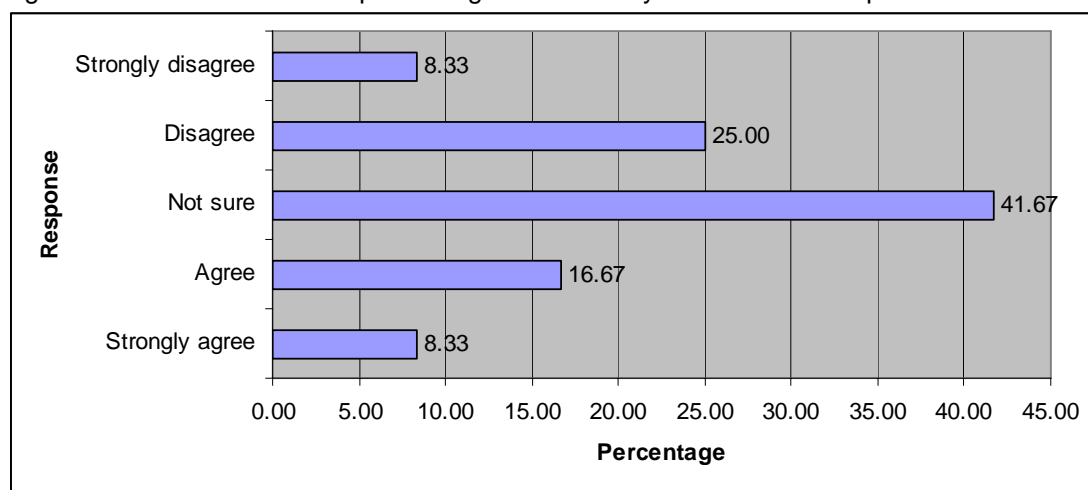
From Table 2, 58.33% used the email address while the rest did not. This implies average usage. Since all of them knew the address and its password, it was expected that they all would use it.

### 3.4.2 Factors that affected student's use of email in supervision

Proponents of the TAM point out that perceived usefulness is an important factor affecting technology acceptance. In this study, 66.7% of the students agreed that it was possible to be supervised anytime if email was used while 16.7% did not know and 16.7% disagreed. This implies that they perceived use of email in supervision possible which can promote access to learning for development.

Most students (41.67%) were not sure as to whether they would get high marks if they used email for supervision. A combined percentage of 33.33% disagreed to the statement as shown in the following figure;

Figure 1: Whether students expected high marks if they used email for supervision



Source: Primary data

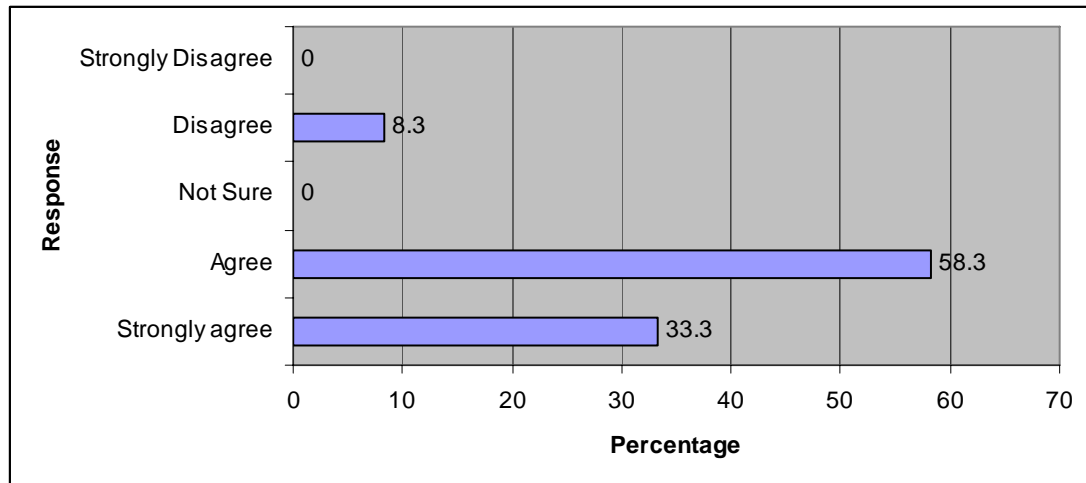
This could explain why they did not use it for supervision. When asked whether they expected to complete research in time, 75% disagreed while 25% agreed. If they fail to finish in time, they would not graduate on time hence delaying their advancement on jobs.

Feedback from the supervisor is important in the supervisory relationship. Most students expected to get feedback in time if they used email. However, 16.67% disagreed and 16.67% were not sure. When asked if they expected to get feedback from their supervisor every time, 50% agreed, 8.3% were not sure while 41.7% disagreed. Half of the students had a positive expectation. However, few of them used the email frequently. The reason given was that the supervisor would take some time to respond to their queries. This implies that perceived usefulness backed by actual use by the users of the technology supporting each other can make the technology acceptable to the users, making access to learning for development possible.

The supervisory relationship also requires that the supervisor guides the student throughout the research process (Zhao, 2001). Majority of the respondents (58.33% cumulative) perceived email to be useful in getting guidance from the supervisor any time. When correlated, frequency of use of the email address and expectation to get guidance returned a significant positive relationship ( $r = 0.689$ ,  $p = 0.013$ ). However, contrary to this, 66.7% said they did not expect all their questions to be answered exhaustively. They preferred meeting the supervisor physically hence ignoring email as not very useful. However, if guidance is comprehensive using email, access to learning would be improved.

Students expected to get time to do other activities if they used email as the following figure shows;

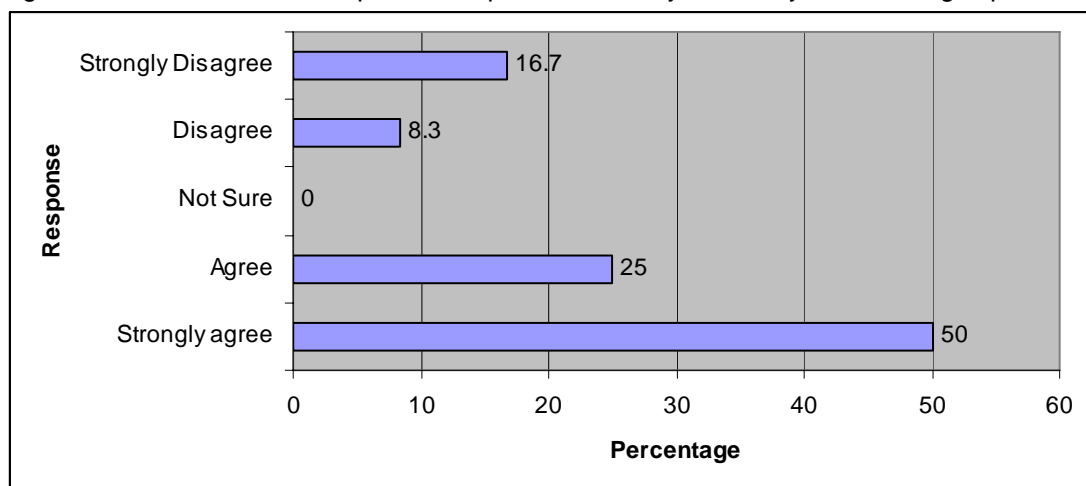
Figure 2: Whether students expected to get time and do other activities if they used email during supervision;



Source: Primary data

From the above figure, most students expected that use of email would enable them do other activities instead of having to travel to the university to meet their supervisor. This indicates that use of internet for supervision allows working adults to continue concentrating on their jobs, improving access to learning. They also expected to spend less as shown in the Figure 3 below;

Figure 3: Whether students expected to spend less if they used only email during supervision;



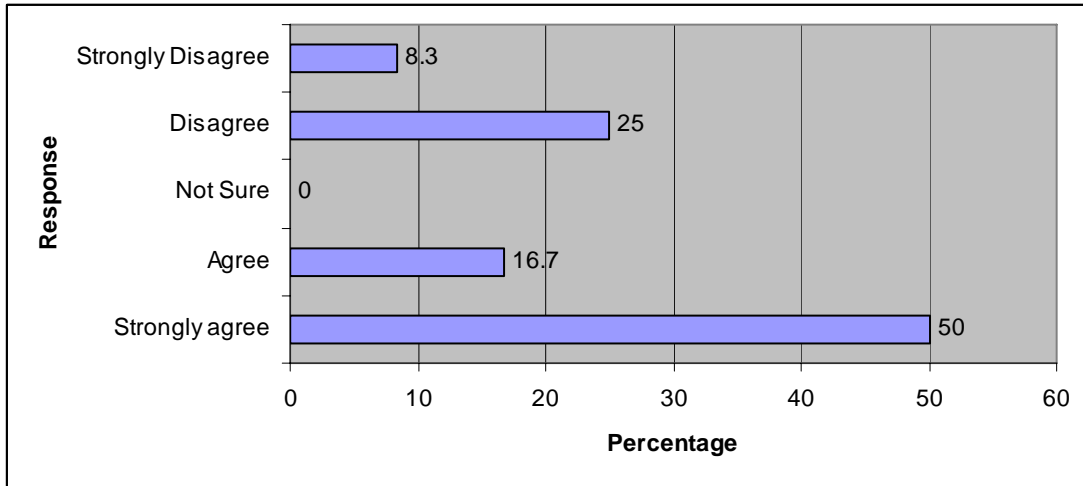
Source: Primary data

If students travel to main campus for supervision, they incur actual costs for transport, accommodation and feeding and opportunity costs of being away from their families and jobs. Use of email makes university supervisors accessible while saving costs hence leading to access to learning.

Perceived ease of use is one of the factors to be considered before an individual accepts to use technology. 58.3% expected using email in supervision to be easy. However others were not sure while others disagreed. Knowledge of internet use and its accessibility also made some students think that using email for supervision would not be easy. Email supervision, if made easy, can improve access to learning for development.

Social presence as a factor that encourages students to use email was also explored. Asked whether they needed one-to-one physical communication between them and the supervisor when carrying out research, the following figure shows the findings;

Figure 4: Whether students needed one-to-one physical communication between them and the supervisor when carrying out research;

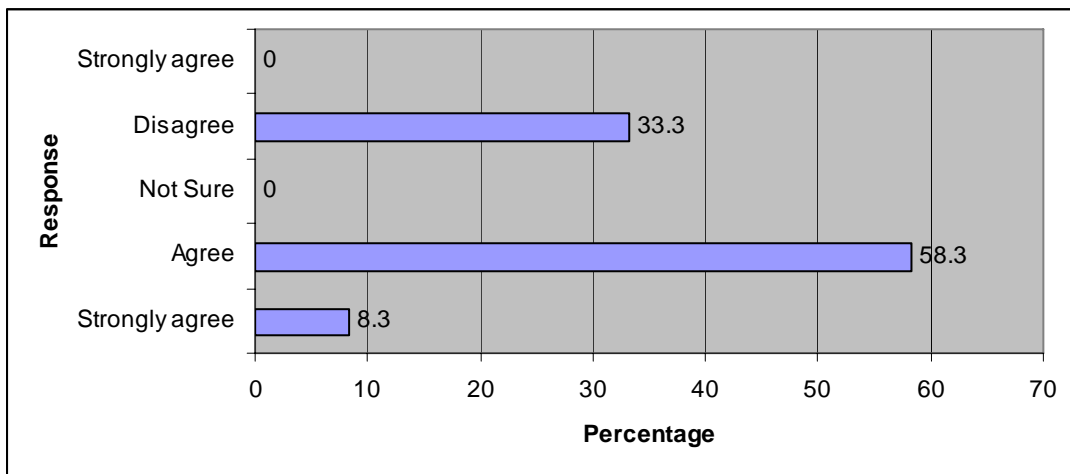


Source: Primary data

Most students (66.7%) agreed that they needed one-to-one physical communication between them and the supervisor. They needed more detailed explanation about their work which may not be possible in expensive cyber cafés. This makes internet supervision appear a hindrance to access to learning for development.

Using the internet was perceived as a means of encouraging students to be closer to their supervisor and the following figure shows the findings;

Figure 5: Whether students felt closer to the supervisor when using email for supervision;

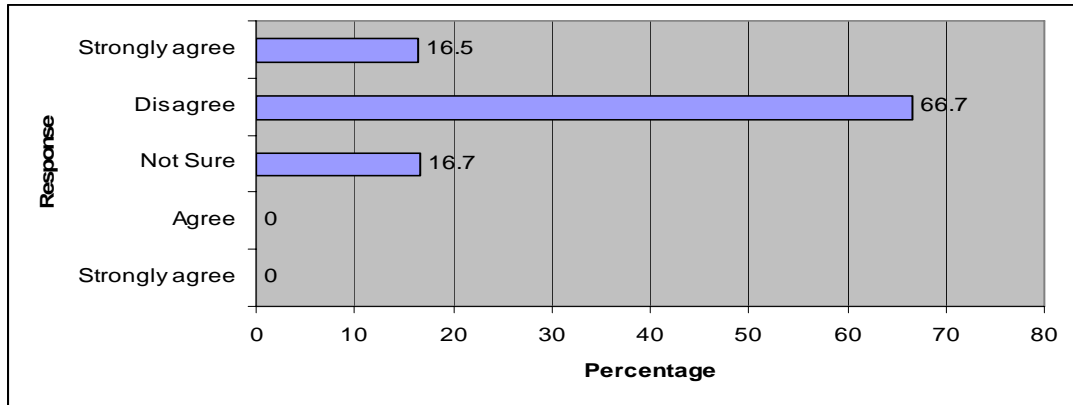


Source: Primary data

58.3% of the students agreed and 8.3% strongly agreed that using internet for supervision would make them feel closer to the supervisor. Lecturers in MAK rarely accept email communication between them and students. A supervisor who accepts email communication with students makes them feel closer to him/her. Discussions with students indicated that this was a motivating factor which is in line with the findings of Dennis *et al.*, (2003).

Students did not expect to be understood by their supervisor as shown in the figure below;

Figure 6: Students' expectations of the supervisor understanding their challenges if they used only email for supervision;



Source: Primary data

Cumulatively, 83.2% disagreed with the view that their supervisor would understand their challenges. They said that challenges can best be understood if explained verbally and face to face with someone in a superior position. This makes email supervision a hindrance to access to learning for development.

Students were sceptical about using email in supervision because they did not know its social outcome. Most students (66.6%) did not expect to be understood by their colleagues since their colleagues met their supervisors physically. They were reluctant to disclose that they were being supervised using email. This reduces access to learning since they were not encouraging others to use it.

### 3.4.3 Student's satisfaction with using email Communication in research

After two months of supervision, students were asked their satisfaction with using email in research. 41.6% (cumulatively) were satisfied, 8.3% were not sure while 50% (cumulatively) disagreed. Factors they gave included delaying feedback, limited funds, limited access to internet, anxiety over using this new approach, peers meeting physically with supervisors, need for clarity and desire for physical communication with the supervisor. As Dennis *et al.*, (2003) noted, effectiveness, efficiency and participant satisfaction are likely to be impaired if technologies low in social presence are used for these activities. Using a text-only technology like email which provides low social presence for an activity requiring personal involvement is likely to result in reduced effectiveness, efficiency and participant satisfaction.

Small business owners were asked the extent to which they felt that research findings can be applied in their businesses. 75% of them agreed, 20% disagreed while 5% were not sure. Those who agreed said that by the students doing research in their firms, they were able to identify problems and possible solutions. Those who disagreed said that the business environment is more practical and so problems are more solved as they occur daily.

## 4.0 CONCLUSIONS

- There was a difference between actual usage of the system and the planned usage due to limited access to internet, lack of physical communication with the supervisor delaying feedback, peers meeting physically with supervisor and need for clarity which is in line with the findings by Dillon and Morris (1996).
- Email supervision can improve access to research supervision and supervisors
- Majority of the owners and managers of small businesses were willing to apply recommendations from the research of the students.
- Using the internet in research supervision will enable students continue to be more productive at their work places and their relevance to development of small businesses in their home regions will improve.
- Students can have a positive experience of their own learning at a distance and improve their relevance in being able to apply the findings to improve performance of business enterprises and access to learning for development.

## 5.0 RECOMMENDATIONS

- Students and tutors should be sensitised about effectively using internet for supervision.

- Public private partnerships should be made between the university and the business community so that more small business owners allow students to do research with the understanding that they will apply the findings in the organisations.
- More study centers with internet connectivity be opened up so that more students carry out research at regional centers.
- Tutors be encouraged to visit centers with no internet connectivity.

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