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**UTILISATION OF ACCESS TO GLOBAL ONLINE RESEARCH IN AGRICULTURE (AGORA) BY
FINAL YEAR UNDERGRADUATE STUDENTS OF THE FACULTY OF AGRICULTURE AND
FORESTRY, UNIVERSITY OF IBADAN, NIGERIA**

Badiru, I. O., Fawole, O. P. and Nkwocha, C. A.

Department of Agricultural Extension and Rural Development, University of Ibadan, Nigeria

E-mail: bodebadru@yahoo.com

ABSTRACT

This study investigated the utilisation of Access to Global On-line Research in Agriculture (AGORA) by final year undergraduate students of the Faculty of Agriculture and Forestry, University of Ibadan. A total of 140 respondents were selected from the eight departments in the faculty using simple random sampling technique. Data collection was done using a structured questionnaire and the data were analysed using both descriptive (frequency, percentage, means) and inferential statistics (Chi-square and PPMC) at $P=0.05$. The results revealed that 52.1% of the respondents were female, 90% were single, 97.1% were computer literate and the mean age of the respondents was 24 years. About 67.1% had high level of awareness on AGORA. Constraints to the use of AGORA identified included irregular power supply (64.3%), limited access to AGORA password (52.8%), and lack of awareness (49.3%). Significant relationship existed between level of awareness and use of AGORA ($r=0.334$; $p=0.05$). There was no significant relationship between constraint and utilisation of AGORA ($\chi^2=3.334$; $p>0.05$). Hence, there is a need for increased publicity in order to encourage attitudinal change and improve the utilisation of AGORA by the students.

Keywords: AGORA, online research, utilisation of AGORA.

INTRODUCTION

The reliance on electronic library resources have been on the increase in recent times because many journals and academic resources are now being digitized for easy accessibility by students and researchers in developed countries of the world (Nicholas and Huntington, 2006). This trend may not abate anytime soon as we are now in a digital world, hence the need to further strengthen it. However, there is a problem of under-utilisation of scholarly electronic journals in higher learning institutions especially in developing countries. Oyedapo and Ojo (2013) in a study on the use of electronic resources in Obafemi Awolowo University observed very low usage of electronic journal resources by students. The major reason that contributed to low utilisation of electronic resources was limited searching skills of students and researchers (Oyesika and Oduwale, 2004). According to Manda (2005) other factors leading to underutilisation of electronic resources includes lack of access to internet connected computers; low internet bandwidth and unreliable power supply. Manda and Mukangara (2007) in a study on gender analysis of use of electronic resources, also observed low usage of electronic scholarly journal databases. They however observed that most students and researchers preferred to use the Google search engine. Rahman and Ramzy (2004) and Kiondo (2007) concurred with these findings and maintained that the efficient use of electronic library resources can only be achieved if these challenges are addressed.

The Access to Global Online Research in Agriculture (AGORA) project was designed to enrich the research capabilities of students and to increase the quality of research done. AGORA grants member institutions free low cost access to major scientific journals in agriculture and other

related discipline. It was launched in October 2003 and provides access to more than 3500 key journals and 3300 books from the world's leading academic publishers to 2500 institutions in 116 countries. The Faculty of Agriculture and Forestry, University of Ibadan is one of the beneficiaries of the project. The components of AGORA will help to keep students updated and well informed about current research works in the field of agriculture, which can help avoid using old references and also build the writing and research skills of the students. Hence, her students are expected to benefit immensely from the project. However, students tend to still use materials (journals, articles, etc.) in the library which may be outdated thus limiting them to cite old references in their literature review. Since the launch of the project in University of Ibadan, there has not been much research effort on assessing its utilisation by the target population, hence the study.

METHODOLOGY

The population of the study consists of all the final year students in the eight departments of the Faculty of Agriculture and Forestry, University of Ibadan. The total population of the final year students of the faculty is 301. Simple random sampling technique was used to select 50% of the students' population which gave a total number of one hundred and fifty one (151) respondents to which questionnaires were administered, out of which only 140 respondents returned useful information, representing (92.7%) return rate. The structured questionnaire was used to collect information on personal characteristics, level of awareness, attitude, constraints and utilisation of AGORA. Utilisation of AGORA which is the dependent variable was measured using a three point scale of regularly, occasionally and never.



RESULTS AND DISCUSSION

Respondents' Personal Characteristics

According to Akangbe *et al* (2012), socio-economic and personal characteristics are vital to gaining insight into the kind of persons being questioned. Table 1 show that the mean age of the respondents was 24 years. Majority (52.1%) were females and mostly single (90%). Almost all of them (97.1%) were computer literate

Table 1: Distribution of respondents according to their personal characteristics

| Characteristics | Classification | Frequency |
|-----------------|----------------|------------|
| Age | 20-22 | 43 (30.7) |
| | 23- 25 | 61 (43.6) |
| | 26- 28 | 24 (17.1) |
| | 29- 32 | 12 (8.6) |
| Sex | Male | 67 (47.9) |
| | Female | 73 (52.1) |
| Marital status | Single | 126 (90.0) |
| | Married | 14 (10.0) |
| Computer | Yes | 136 (97.1) |

Table2a: Students' level of awareness on Access to Global On-line Research in Agriculture.

| Statement | Aware | Not Aware |
|--|--------|-----------|
| AGORA is an electronic library that gives low cost access to scientific journals in Agriculture. | (73.7) | (24.3) |
| AGORA contains recent publications on Agriculture. | (70.7) | (29.3) |
| AGORA helps researchers and students have access to high quality, relevant and timely Agricultural information via the internet. | (67.1) | (32.9) |
| With AGORA, you can have access to books, texts books on various aspect of Agriculture | (71.4) | (28.6) |
| AGORA contains current journals that can go a long way in assisting you in your projects | (62.1) | (37.9) |
| With AGORA you can take short courses on various agricultural subjects. | (41.4) | (58.6) |
| AGORA provide hand-outs and exercises on the courses taken | (41.4) | (58.6) |
| Using AGORA provides access to current research | (64.3) | (35.7) |
| As a student you can make publications and publish articles on AGORA. | (42.1) | (57.9) |

Figures in parenthesis are percentages

Source: Field survey, 2014

Table 2b: Overall students' level of awareness on AGORA

| Level of awareness | Freq | Perc |
|--------------------|------|------|
| High (0 – 5.36) | 94 | 67.1 |
| Low (5.36 – 9) | 46 | 32.9 |
| Total | 140 | 100 |

Mean 5.36

Source: Field survey, 2014

Attitude of respondents towards the use of AGORA

Majority of the respondents had an unfavourable attitude towards the use of AGORA. Table 3a describes the attitude of respondents towards the use of AGORA. The result shows that

| | | |
|----------|----|---------|
| Literate | No | 4 (2.9) |
|----------|----|---------|

Source: Field survey, 2014

Figures in parenthesis are percentages.

Respondents' level of awareness of AGORA

Table 2a shows a high level of awareness (67.1%) of AGORA among the students. However, only (24.3%) were not aware of AGORA as on electronic library. Table 2a gives a breakdown of the respondent's level of awareness. Furthermore, Table 2b indicates that (67.1%) of the students had high level of awareness on AGORA, while (32.9%) had low level of awareness on AGORA, with a mean value of (5.36). Most of the respondents (73.7%) were aware that AGORA was an electronic journal, while (58.6%) were not aware that AGORA offers short courses on various agricultural subjects. This suggests that more awareness creation needs to be done to promote other components of AGORA to ensure its full utilisation.

more (57.1%) of the respondents preferred using Google search engine to AGORA because the log-in password was not readily available. Some of the respondents had negative attitude towards using AGORA. From the results obtained, (31.4%) agree, and (10%) strongly agree that AGORA does not allow free access to some of its journals. Another (2.1%) strongly agree and (15%) agree that it is difficult to locate books, journals or articles relating to their topic of interest on AGORA and this may hamper its utilisation.

Table 3b indicated that (38.6%) possessed favourable attitude, while 61.4% possessed unfavourable attitude towards the use of AGORA. The difference between favourable and



unfavourable is large, which suggests that the respondents are varied in their attitude to the use of AGORA, while the mean value was (64.7). The difference in attitude may suggest the need for

increased publicity in order to encourage attitudinal change towards the use of AGORA as the attitude of the students may have a high impact on the utilisation of AGORA by the students.

Table 3a: Attitude of respondents to using AGORA

| Attitudinal Statement | Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree |
|--|----------------|-----------|-----------|-----------|-------------------|
| Using AGORA journals is very tedious and time consuming | 5 (3.6) | 38 (27.1) | 72 (51.4) | 17 (12.1) | 8 (5.7) |
| I prefer using GOOGLE search to using AGORA for my research | 58 (41.4) | 45 (32.1) | 25 (17.9) | 6 (4.3) | 6 (4.3) |
| I do not use AGORA because it requires login password. | 25 (17.9) | 36 (25.7) | 55 (39.3) | 14 (10.0) | 10 (7.1) |
| I do not use AGORA because I have no knowledge about how it works. | 19 (13.6) | 35 (25.0) | 42 (30.0) | 33 (23.6) | 11 (7.9) |
| Getting journals on AGORA requires me having proper orientation on how to use it. | 26 (18.6) | 58 (41.4) | 44 (31.4) | 7 (5.0) | 5 (3.6) |
| AGORA does not allow full access to some of its journals. | 14 (10.0) | 44 (31.4) | 71 (50.7) | 5 (3.6) | 6 (4.3) |
| I find it difficult to locate books or journals relating to my topic of interest on AGORA. | 3 (2.1) | 21 (15.0) | 78 (55.7) | 35 (25.0) | 3 (2.1) |
| I experience irrelevant search results while using AGORA. | 5 (3.6) | 31 (22.1) | 70 (50.0) | 28 (20.0) | 6 (4.3) |
| I need to be computer literate and have stable network before I can access AGORA | 23 (16.4) | 62 (44.3) | 45 (32.1) | 5 (3.6) | 5 (3.6) |
| Downloading and uploading articles, journals or a publication on AGORA is very fast and easy. | 10 (7.1) | 36 (25.7) | 80 (57.1) | 12 (8.6) | 2 (1.4) |
| AGORA is user friendly, easy to use and saves time. | 12 (8.6) | 40 (28.6) | 74 (52.9) | 13 (9.3) | 1 (0.7) |
| With the login password I have a full access to all the components of AGORA. | 28 (20.0) | 80 (57.1) | 27 (19.3) | 4 (2.9) | 1 (0.7) |
| The login password is easily accessible and simple | 7 (5.0) | 29 (20.7) | 69 (49.3) | 30 (21.4) | 5 (3.6) |
| With a proper orientation on AGORA, working on the site is very easy and convenient | 11 (7.9) | 56 (40.0) | 63 (45.0) | 9 (6.4) | 1 (0.7) |
| AGORA saves me the strength of moving from shelf to shelf in search of journals or books in the library. | 17 (12.1) | 53 (37.9) | 58 (41.4) | 9 (6.4) | 3 (2.1) |
| I do not need orientation to work on AGORA because it is user friendly. | 8 (5.7) | 27 (19.3) | 67 (47.9) | 26 (18.6) | 12 (8.6) |
| Getting journals or books relating to my topic of interest is very convenient and easy using AGORA | 11 (7.9) | 41 (29.3) | 73 (52.1) | 13 (9.3) | 2 (1.4) |
| I do not need to be a computer literate to use AGORA. | 5 (3.6) | 25 (17.9) | 52 (37.1) | 36 (25.7) | 22 (15.7) |
| Network strength does not affect the use of AGORA | 7 (5.0) | 16 (11.4) | 65 (46.4) | 42 (30.0) | 10 (7.1) |
| Downloading or uploading articles on AGORA is very slow and tedious | 4 (2.9) | 19 (13.6) | 91 (65.0) | 22 (15.7) | 4 (2.9) |

Figures in parenthesis are percentages

Source: Field survey, 2014



Table 3b: Overall students' attitude towards using AGORA

| Attitude | Freq | Perc |
|-------------------------|------|------|
| Favourable (49 – 64.7) | 54 | 38.6 |
| Unfavourable (64.8– 88) | 86 | 61.4 |
| Total | 140 | 100 |
| Mean 64.7 | | |

Source: Field survey, 2014

Constraints to the use of AGORA

Results in Table 4a revealed that irregular power supply was the most severe constraint

Table 4a: Constraint encountered in the utilisation of AGORA by the students

| Constraints | Severe | Mild | Not | Mean |
|------------------------------------|-----------|-----------|-----------|------|
| AGORA access is password protected | 74 (52.8) | 49 (35.0) | 17 (12.1) | 1.4 |
| Lack of awareness about AGORA | 69 (49.3) | 44 (31.4) | 27 (19.3) | 1.3 |
| Lack of orientation for students | 77 (55.0) | 44 (31.4) | 19 (13.6) | 1.4 |
| Network fluctuation | 74 (52.9) | 52 (37.1) | 14 (10.0) | 1.4 |
| Irregular power supply | 90 (64.3) | 35 (25.0) | 15 (10.7) | 1.5 |
| Irrelevant search results | 45 (32.1) | 74 (53.5) | 20 (14.3) | 1.2 |

Figures in parenthesis are percentages

Source: Field survey, 2014

Utilisation of AGORA

Results in Table 5a reveal that (57.9%) of the respondents have never searched for journals on AGORA. Only (4.3%) have published on AGORA and this is a source of concern as majority (80.7%) have never participated in any group discussion on AGORA, signifying under utilisation of AGORA by the students in the study area. Lack of proper awareness on other uses of AGORA could have been the reason for the limited use of its components. More awareness creation on the components of AGORA should be done to encourage full utilisation.

Table 5a: Frequency of utilisation of AGORA by the students

| Components | Regularly | Occasionally | Never | Mean |
|---|-----------|--------------|------------|------|
| Search AGORA journals | 8 (5.7) | 51 (36.4) | 81 (57.9) | 0.48 |
| Take AGORA short course | 4 (2.9) | 29 (20.7) | 107 (76.4) | 0.26 |
| Attempt exercises on AGORA | 3 (2.1) | 32 (22.9) | 105 (75.0) | 0.27 |
| Read AGORA hand outs | 6 (4.3) | 49 (35.0) | 85 (60.7) | 0.44 |
| Participate in group discussions on AGORA | 2 (1.4) | 25 (17.9) | 113 (80.7) | 0.20 |
| Watch presentations published on AGORA | 6 (4.3) | 40 (28.6) | 94 (67.1) | 0.37 |

Figures in parenthesis are percentages. Source: Field survey, 2014

Table 5b: Overall students' utilisation of AGORA

| Utilisation | Frequency | Percentage |
|----------------|-----------|------------|
| High (0 -1.4) | 56 | 40 |
| Low (1.4 – 11) | 84 | 60 |
| Total | 104 | 100 |
| Mean 1.4 | | |

Source: Field survey, 2014

(64.3%), followed by lack of proper orientation of students on the use of AGORA (55.0%). Lack of awareness about AGORA (19.3%) is not a serious constraint since utilisation only comes with awareness. The university needs to take some practical steps by organising seminars and training workshops to orientate the students on how to use AGORA and also solve the problem of irregular power supply.

Table 5b reveal that (40%) of the respondents have used AGORA, while (60%) have low utilisation of the components of AGORA, with mean value being 1.4. This implies that there is low utilisation of AGORA components, and the difference in utilisation may suggest the need for improvement on AGORA in order to encourage its use. This low utilisation could also be as a result of some constraints like epileptic power supply and unavailability of AGORA password. If these constraints are properly addressed, perhaps utilisation could increase significantly.

Relationship between personal characteristics and utilisation of AGORA

From the PPMC and Chi-square results in Table 6, there exists a direct relationship among the variables. Age had a significant relationship with the utilisation of AGORA. This implies that the age of the respondents affect the utilisation of AGORA. The younger they are, the more they are likely to utilise AGORA, and vice versa.



Table 6: PPMC and Chi-square table showing the relationship between selected personal characteristics of students and utilisation of AGORA

| Variables | r | df | X ² | P value | Decision |
|-------------------|-------|----|----------------|---------|-----------------|
| Age | 0.306 | | | 0.002 | Significant |
| Sex | | 1 | 2.104 | 0.147 | Not significant |
| Marital status | | 1 | 0.053 | 0.818 | Not significant |
| Computer literacy | | 1 | 0.386 | 0.534 | Not significant |
| Writing project | | 2 | 1.875 | 0.392 | Not significant |

The PPMC results on Table 7 show that there is a significant relationship between the level of awareness of the students on AGORA and its utilisation. ($r = 0.244$; $P = 0.05$). This is understandable as utilisation only comes with awareness. Therefore, more awareness creation needs to be done to improve the utilisation of AGORA. Also, there is a significant relationship between the attitude of the students towards the utilisation of AGORA at $p = 0.05$ level of significance. This implies that respondents with favourable attitude towards the use of AGORA will have a high level of utilisation; therefore respondents should be encouraged to develop a favourable attitude towards the use of AGORA.

Table 7: Relationship between awareness and attitude with utilisation of AGORA

| Variable | r-value | P-value | Decision |
|-----------|---------|---------|-------------|
| Awareness | 0.334 | 0.000 | Significant |
| Attitude | 0.244 | 0.003 | Significant |

*Significant, $P < 0.05$

r = PPMC value

CONCLUSION AND RECOMMENDATIONS

The utilisation of AGORA by the respondents was low, despite their high level of awareness. This is because of the numerous constraints like irregular power supply they encounter in utilising AGORA, which resulted in an unfavourable attitude towards its use. Since users complain of unstable electricity supply, which discourages them from using AGORA, stable electricity supply should be provided. The AGORA password should be made readily available and easily accessible to the students.

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