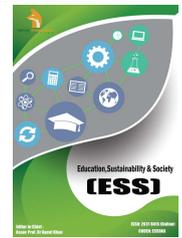


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## RESEARCH ARTICLE

# USING PRACTICAL TECHNIQUE IN IMPROVING STUDENTS TYPING SKILLS

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## ABSTRACT

This study aimed at investigating the use of the practical technique in improving students typing skills. Students of Asuoeyboah M/A Junior High School in the Kwadaso sub-metro of Kumasi, Ghana were the population for the study. Twenty (20) Junior High School form one pupil were purposively sampled for the study. The nature of the study was action research. The pre-test and the post-test research design was used, the same participants were pre-tested and post-tested to find the effects of the intervention. Computers and other ICT tools were used for the study. Descriptive statistics were employed in analyzing the data. The pre-intervention and post-intervention findings revealed a remarkable improvement in pupils' typing skills. The findings of this research indicated that a practical technique improves pupil's understanding and knowledge in typing skills. Observation of pupils revealed that they were highly excited when taught using computers and other ICT tools. It is recommended that teachers consider the use of practical technique during the practical period more than the lecture method to sustain pupils' interest as well as enhance their typing skills.

## KEYWORDS

academic performance, ICT (Information and Communication Technology) and practical method.

## 1. INTRODUCTION

The main objective of every teacher is to impact positively, knowledge and skills to the life of their students. For others, to use technology to enhance students learning experience (Chowdhry, 2014). For teachers to achieve their set goals and objectives, teachers should adapt the appropriate teaching methods that will help their teaching and learning with the students to be effective and successful (Gaiziuniene and Horbacauskienė, 2020). A practical method of teaching as adapted by various schools across the world is making a significant impact on the student's academic performance (Attarian, 2020; Waheed *et al.*, 2020). To expand education beyond traditional boundaries, student-centred learning focuses on educational practices and principles that provide all students equitable access to the knowledge and skills necessary for college and career readiness in the 21st century (Moeller and Reitzes, 2011). The various methods of teaching Information and Communication and Technology in Junior High School (JHS) levels have contributed to academic performance but the use of the practical method in teaching increase significantly towards students' performance (Adu-Gyamfi, 2014; Wilson and Peterson, 2006). Students learn more when they are engaged during teaching and learning of which the teacher creates more room for students to feel comfortable in class (Hod and Katz, 2020). Teachers creating the atmosphere for students engagement affects how effective students will engage themselves during teaching and learning (Haward, 2020). keyboarding is a way of equipping student's typing skills and it is more of a self-regulatory which promotes self-esteem and self-efficacy (Lubbe *et al.*, 2006).

A study at Asuoeyboah M/A Junior High School made the researcher saw that students' typing skills are very poor. Personal communications or interactions with some teachers and pupils have proven that pupil's typing skills in Information and Communication Technology at the school is very poor. The teaching methods used by the teachers makes the pupils show little interest in learning how to type (McInerney and Green-Thompson, 2020). The researcher realized that pupils did not take an active part in learning typing skills when teachers use lecture method rather than a practical technique in teaching typing (Emmanuel, 2012). In most of Ghanaian schools, teaching of typing skills is taught without involving the students through practice (Asare *et al.*, 2020). For the method used for teaching to be effective, the researcher maintains that teachers need to use a practical technique in teaching typing skills (Holstenkamp *et al.*, 2018).

Students at Asuoeyboah M/A JHS finds happiness in learning how to type when they are given the chance to use the computers to practice during teaching and learning (Harris, Al-bataineh and Al-bataineh, 2016). From observing students at Asuoeyboah M/A JHS, the need further exists to adopt a teaching method that will enhance students typing skills (Asare, Owusu-Mintah and Esther, 2020). By exploring the need for typing in Junior high schools, school administrators can identify potential issues that arise when teachers teach typing skills and students ability to type within a specific time frame (Gaweda *et al.*, 2020). Students ability to acquire typing skills will help them in the various discipline of their academics and career (Widjaja and Sumali, 2018). The results of the study will provide useful information for stakeholders, including teachers, students and the Ministry of Education to make a policy that will enhance the quality and accessibility of education. Teachers adopting this method

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will help provide a conducive learning environment and also motivates students learning. This paper investigates the use of practical technique in improving students' typing skills.

## 2. LITERATURE

Past literature has documented that keyboarding as writing apparatus is an essential skill in the technological era and more self-regulated learners perform better in keyboarding than less self-regulated learners. The researcher used students registered at the Faculty of Arts for a compulsory keyboarding and word-processing course completed a questionnaire to identify both more and less self-regulated learners (Lubbe et al., 2006). This section has attempted to provide a brief summary of the literature relating to teach keyboarding skills to school-aged children with intellectual disabilities. The study employed two programs to assess the number of accurate key strokes and speed of which both programs were successful in teaching keyboarding skills.

A group researchers undauntedly shows that students keyboarding skills can be improved greatly using colored keyboard that ponder interrelated material, perceptual, mental and psychomotor motor aptitudes in light of the fact that as exhibited keyboarding is a complex skill contained finely segregated progression structures that rely upon interrelated sensory, perceptual, mental and motor wellsprings of information and yields which must happen practically each other in time (Asare et al., 2020; Olinzock, 1998). From this study it is likewise plainly clear that student's keyboarding limits can be improved the distant chance that they are given sufficient opportunity to rehearse. It was in like way obvious from the typing test controlled toward the finishing of the interventions that students will get skilled in utilizing colored keyboard if their keyboarding skills are to be improved.

A scientist evaluated that learning formal typing procedures on a QWERTY keyboard would improve the quality and proportion of made work students passed on (Richardson, 2017). The study showed a positive relationship among typing and word total. 66% of students saw a positive extension in word per minute (WPM). Furthermore, notwithstanding the way that a few students didn't get word per minute (WPM) before the culmination of the appraisal, they felt an opinion of feeling about their capacities to type rapidly and expected to practice to continue improving. The study accepted that understanding how to type was a general positive encounter for these students that guided them toward valorization. Practical life activities should help students with concentrating on the most able procedure to expert a specific skill, and how to best refine the wellness to such a degree, that works for the person. Considering all of this evidence, it seems that the past research does not address the typing skills of students in Junior High School. It also does not consider the teaching method that will motivate students to develop interest in typing. The empirical findings in this study address the typing skills of students in Junior High School.

## 3. RESEARCH SETTING

The research study was undertaken at a Government school at Asuoyeboah in Kumasi, Ghana. The participants for the study were JHS 1 students at Asuoyeboah M/A Junior High School.

## 4. METHODOLOGY

The use of the practical technique in teaching develops student's thinking skills and can make classrooms conducive and interactive for educational growth. This research was conducted using the probabilistic approach with stratified random sampling and as a controlled quantitative research study to investigate by identifying, analyzing and describing the use of practical technique in improving students' typing skills. The data were collected at Asuoyeboah M/A JHS. The data was given to JHS 1 students to complete it of which the purpose of this study was achieved. This research was classroom-based action research which was done at Asuoyeboah M/A Junior High School in Junior High School one class. The research was conducted using the probabilistic approach with stratified random sampling and as a controlled qualitative research study on the use of practical technique in improving students' typing skills. The data was given to 20 students in JHS 1 to complete it of which the purpose of this study was achieved. The researcher used action research because the researcher saw the problem in his first term with science 1 students of Asuoyeboah M/A JHS. The researcher used action research to identify issues and gain an understanding of problems with which they are directly concern (ie. their typing skills).

### 4.1 Data Collection Instrument

A questionnaire and an interview were conducted for data collection. Participant was instructed to answer each question on a four-point Likert scale, ranging from strongly agree to strongly disagree and yes or no questions. The questionnaire was reliable in the sense that, the same results would be obtained if it is undertaken by any other researcher using this method. The researcher used English language as a medium of communication throughout the questionnaire. The validity of the study was to the extent that the students who participated had similar knowledge, attitudes and beliefs regarding the use of a practical technique to enhance student's typing skills. The questionnaires were coded before entering the data into a statistical envelope for students in JHS 1 at Asuoyeboah M/A JHS for analysis. In this research, descriptive analysis was the method for the analysis of the data collected. All the answers to the questions were edited and statistical tables and frequencies were prepared to arrive at percentages corresponding to absolute figures. The tables in this report show the percentage of the total number of participants with their total score. None of the participants gave multiple answers to the same question (Nw, 2010). The responses from the interview schedules were all stated in the text to support the discussion of the results. Pre and post-test data were collected from the participants. The data collected from pre-intervention and post-intervention activities were analyzed using frequencies and percentages. The data analysis included frequencies and percentages analysis in form of cross-tabulation to seek for the associations between the various variables tested in the current study. The data was then presented in the form of tables and figures.

### 4.2 Population and Sampling

For this action research to be successful, the researcher targeted only JHS 1 students at Asuoyeboah M/A JHS. These students study Information and Communication Technology as part of one of their learning subjects. The population of the study was one hundred (100) of which twenty (20) of the population were sampled for the study. Students were asked to number themselves starting from one to five. At the end of the numbering all those whose number was one were chosen to be participant for the study.

## 5. RESULTS AND DISCUSSION

### 5.1 Frequency Distribution of Pre-test Performance of Pupils

The results in Table 1, present the frequency distributions of the pre-test performance of pupils in the study. A pupil was deemed to have gained typing skills if he or she was able to type within a time frame. Pupils' marks were grouped into 0 – 5 marks, 6 – 10 marks and 11 – 15 marks. Pupils who scored between 11 – 15 marks were those who were able to type faster, those with 6 – 10 marks were those who averagely were able to type and those with 0 – 5 marks were those who couldn't type fast.

| Response      | Frequency | Percentage |
|---------------|-----------|------------|
| 11 – 15 marks | 2         | 10%        |
| 6 – 10 marks  | 10        | 50%        |
| 0 – 5 marks   | 8         | 40%        |
| Total         | 20        | 100%       |

Source: (Fieldwork data, 2019).

From table 1, 2 students representing 10% of the participants were able to type fast within the type frame given. 10 students representing 50% of the participants were average and 8 students representing 40% of the participants couldn't finish within the time frame.

### 5.2 Frequency Distribution of Post-test Performance of Pupils

The results in Table 2 present the frequency distributions of the post-test performance of pupils in the study. A pupil was deemed to have gained typing skills if he or she was able to type within a time frame. Pupils' marks were grouped into 0 – 5 marks, 6 – 10 marks and 11 – 15 marks. Pupils who scored between 11 – 15 marks were those who were able to type faster, those with 6 – 10 marks were those who averagely were able to type and those with 0 – 5 marks were those who couldn't type fast.

| Response      | Frequency | Percentage |
|---------------|-----------|------------|
| 11 – 15 marks | 13        | 65%        |
| 6 – 10 marks  | 7         | 35%        |
| 0 – 5 marks   | 0         | 0%         |
| Total         | 20        | 100%       |

Source: (Fieldwork data, 2019).

From table two, 13 students representing 65% of the participants were able to type faster within the type frame given. 7 students representing 35% of the participants were able to finish within the time frame.

### 5.3 Research Question one

The research question in this study focused on how will practical technique in teaching typing enhance student's typing skills? The first objective of this study was to enhance student's typing skills using practical technique. For each question, participants were asked to choose either yes or no and to indicate the extent to which they agree or disagree using four likert scale, ranging from strongly agree, agree, disagree and strongly agree. For the results to be interpreted, frequency and percentage were computed for the questions raised. The results are presented based on the questionnaires on student's opinion in table 3.

| Research Question  | Response          | Frequency | Percentage |
|--|-------------------|-----------|------------|
| A practical technique in teaching gave me first-hand experience.                                 | Yes               | 14        | 70%        |
|  | No                | 6         | 30%        |
|  | Total             | 20        | 100%       |
| I learn typing by taking an active part during practical   | Yes               | 16        | 80%        |
|  | No                | 4         | 20%        |
|  | Total             | 20        | 100%       |
| Practical technique enhances retention and recall.   | Yes               | 20        | 100%       |
|  | No                | 0         | 0%         |
|  | Total             | 20        | 100%       |
| When exercises are given to you after your practice, are you able to type within the time frame. | Yes               | 18        | 90%        |
|  | No                | 2         | 10%        |
|  | Total             | 20        | 100%       |
| With the help of a practical technique, it has improved my typing skills.                        | Yes               | 20        | 100%       |
|  | No                | 0         | 0%         |
|  | Total             | 20        | 100%       |
| We use a computer and other ICT tools to learn while practicing                                  | Yes               | 20        | 100%       |
|  | No                | 0         | 0%         |
|  | Total             | 20        | 100%       |
| Learning through practical help improve our learning.  | Strongly agree    | 20        | 100%       |
|  | Agree             | 0         | 0%         |
|  | Disagree          | 0         | 0%         |
|  | Strongly disagree | 0         | 0%         |
|  | Total             | 20        | 100%       |
| Learning typing skills become easy when practicing   | Strongly agree    | 19        | 95%        |
|  | Agree             | 1         | 5%         |
|  | Disagree          | 0         | 0%         |
|  | Strongly disagree | 0         | 0%         |
|  | Total             | 20        | 100%       |
| Learning while practicing helps us understand the content very well                              | Strongly agree    | 20        | 100%       |
|  | Agree             | 0         | 0%         |
|  | Disagree          | 0         | 0%         |
|  | Strongly disagree | 0         | 0%         |
|  | Total             | 20        | 100%       |

From Table 3, 14 respondents representing 70% agreed that a practical technique in teaching gave them first-hand experience and 6 of the respondents representing 30% disagreed that a practical technique in teaching gave them first-hand experience. 16 respondents representing 80% agreed that they learn typing by taking an active part during practical and 4 of the respondents representing 20% disagreed that they learn typing by taking an active part during practical. All the respondents representing 100% agreed that practical technique enhances retention and recall. 18 respondents representing 90% agreed that when exercises are given to them after they practice, they are able to type within the time frame and 2 respondents representing 10% disagreed that when exercises are given to them after they practice, they are able to type within the time frame.

Also, All the respondents representing 100% agreed that with the help of a practical technique, it has improved their typing skills. All the respondents representing 100% agreed that they use a computer and other ICT tools to learn while practicing. All the respondents representing 100% strongly agreed that learning through practical help improve their learning. With this, none of the respondents agreed, disagreed and strongly disagreed. 19 respondents representing 95% strongly agreed and 1 respondent representing 5% agreed that learning typing skills become

easy when practicing. With this, none of the respondents disagreed or strongly disagreed. All the respondents representing 100% strongly agreed that learning while practicing helps them understand the content very well. With this, none of the respondents agreed, disagreed and strongly disagreed.

### 5.4 Research Question two

The study sought to answer the research question, how does practical technique in teaching typing motivates students, by stimulating their interest and enjoyment? The second objective of this study was to motivate students, by stimulating their interest and enjoyment in typing. For each question, respondents were asked to choose yes or no and to indicate the extent to which they agree or disagree using four likert scale, ranging from strongly agree, agree, disagree and strongly agree. For the results to be interpreted, frequency and percentage were computed for the questions raised. The results are presented based on the questionnaires on student's opinion in table 4.

| Research Question  | Response          | Frequency | Percentage |
|--|-------------------|-----------|------------|
| Using practical technique in typing skills motivates me to learn.  | Yes               | 20        | 100%       |
|  | No                | 0         | 0%         |
|  | Total             | 20        | 100%       |
| Typing skills lesson becomes interactive during a practical technique.   | Strongly agree    | 18        | 90%        |
|  | Agree             | 2         | 0%         |
|  | Disagree          | 0         | 0%         |
|  | Strongly disagree | 0         | 0%         |
|  | Total             | 20        | 100%       |
| Do you have an interest in learning typing skills during teaching and learning?  | Strongly agree    | 16        | 80%        |
|  | Agree             | 4         | 20%        |
|  | Disagree          | 0         | 0%         |
|  | Strongly disagree | 0         | 0%         |
|  | Total             | 20        | 100%       |
| Do you enjoy learning typing skills when teachers teach while practicing with you?   | Strongly agree    | 20        | 100%       |
|  | Agree             | 0         | 0%         |
|  | Disagree          | 0         | 0%         |
|  | Strongly disagree | 0         | 0%         |
|  | Total             | 20        | 100%       |
| With the use of a practical technique of teaching and learning typing skills, I have developed a love for typing.              | Strongly agree    | 18        | 90%        |
|  | Agree             | 2         | 10%        |
|  | Disagree          | 0         | 0%         |
|  | Strongly disagree | 0         | 0%         |
|  | Total             | 20        | 100%       |
| At the end of every lesson, we acquire extra knowledge than what we have been taught during a practical technique of teaching. | Strongly agree    | 19        | 95%        |
|  | Agree             | 1         | 5%         |
|  | Disagree          | 0         | 0%         |
|  | Strongly disagree | 0         | 0%         |
|  | Total             | 20        | 100%       |
| I learn typing skills when practicing at home.   | Strongly agree    | 20        | 100%       |
|  | Agree             | 0         | 0%         |
|  | Disagree          | 0         | 0%         |
|  | Strongly disagree | 0         | 0%         |
|  | Total             | 20        | 100%       |
| With the interest gained I enjoy doing my project work using a computer.   | Strongly agree    | 20        | 100%       |
|  | Agree             | 0         | 0%         |
|  | Disagree          | 0         | 0%         |
|  | Strongly disagree | 0         | 0%         |
|  | Total             | 20        | 100%       |

From Table 4, All the respondents representing 100% agreed that using practical technique in typing skills motivates them to learn. 18 respondents representing 90% strongly agreed and 2 of the respondents representing 10% agreed that typing skills lesson becomes interactive during a practical technique. With this, none of the respondents disagree or strongly disagreed. 16 respondents representing 80% strongly agreed and 4 respondents representing 20% agreed that they have an interest in learning typing skills during teaching and learning. With this, none of the respondents disagreed and strongly disagreed. All the respondents representing 100% strongly agreed that they enjoy learning typing skills

when teachers teach whiles practicing with them. With this, none of the respondents agreed, disagreed and strongly disagreed.

Also, 18 respondents representing 90% strongly agreed and 2 respondents representing 10% agreed that the use of a practical technique of teaching and learning typing skills has help them developed a love for typing. With this, none of the respondents disagreed and strongly disagreed. 19 respondents representing 95% strongly agreed and 1 respondent representing 5% agreed that at the end of every lesson, they acquire extra knowledge than what they have been taught during a practical technique of teaching. With this, none of the respondents disagreed and strongly disagreed. All the respondents representing 100% strongly agreed that they learn typing skills when practicing at home. With this, none of the respondents agreed, disagreed and strongly disagreed. All the respondents representing 100% strongly agreed that with the interest gained they enjoy doing their project work using a computer. With this, none of the respondents agreed, disagreed and strongly disagreed.

Throughout the questionnaire, the majority of the participants' opinion was in the motion that the use of the practical technique in teaching and learning of typing skills will help enhance student's typing skills. Effective teaching and learning are enhanced by the use of a practical technique in teaching and learning typing skills. Since teaching and learning of typing skills is full of practical, it deals with student-centred approach and teacher-student interactive method.

## 6. CONCLUSION

The use of the practical technique in teaching typing skills enhanced students typing skills. Tangible questions were asked by students and the researcher helped them with answers by letting them practice to answer most of the questions they ask. This gave them confidence in learning the content. The study revealed that JHS one pupils of Asuoeyboah M/A JHS showed a better understanding of typing skills concepts during the practical activity. The student's typing skills improved very well. However, results demonstrate that for students' better their typing skills practical technique of teaching should be adopted (Murphy, Hall and Fortner, 2014). It is recommended that; the Government of Ghana should help provide ICT tools to various schools to help teachers and students in teaching and learning of typing skills. The Ministry of Education should provide a seminar and in-service training every year for ICT teachers with the aim of the use of technological tools effectively to enhance teaching and learning of typing skills. Pupils should be motivated in learning typing skills with the use of a practical technique. ICT teachers in all junior high schools should devote about 95% of their teaching method to practical technique. Computer laboratory should be provided to schools to enhance the practicality of teaching and learning of typing skills (Shah and Khan, 2015). Further research is needed to determine the course of study that students who acquire typing skills study in the University.

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