

## DOING TAKE-HOME ASSIGNMENT WITH CHABOT: INVESTIGATING STUDENTS' PERCEPTIONS AND THE EFFECTS ON ACADEMIC PERFORMANCE FOR A BASICS OF RESEARCH COURSE AT MOROGORO-CAMPUS, TANZANIA

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### ABSTRACT

The study aimed to examine students' perceptions of whether doing take-home assignments using chatbots in the basics of research courses is convenient for students and improves performance in a final examination. The study was conducted at the Institute of Adult Education in Morogoro-Campus in 2022. One hundred and nine (109) diploma students from a first-year class participated in this study. A quasi-experimental design and mixed research approach were used in this study. Participants were randomly divided into experimental (chatbot users,  $n=54$ ) and control (non-chatbot users,  $n=55$ ) groups. Data were collected using questionnaires and analyzed with an independent t-test in SPSS Version 20. In addition, a questionnaire survey was given to the experimental group to investigate their perceptions of the chatbot's effectiveness. Results indicated that 59.3% of respondents strongly agreed that the use of chatbots promotes critical thinking in the course ( $M = 4.00$ ,  $SD = 0.59$ ) and 53.7% of respondents indicated that chatbot use made the subject matter realistic ( $M = 4.12$ ,  $SD = 0.72$ ), also the use of chatbots helped 78.9% of students to understand the course material better ( $M = 4.01$ ,  $SD = 0.84$ ) and saved time in obtaining answers (65.4%) while appreciating the 24/7 availability and user-friendly interface. Chatbot use was considered an assistant throughout the learning process ( $M=4.12$ ,  $SD=0.884$ ). The experimental group illustrated the practical problem within the subject ( $M=3.73$ ,  $SD=0.71$ ). Results also indicated significant performance differences between the two groups  $t(107) = 8.728$ ,  $p = .000$ , with the experimental group outperforming the control group. This study concluded that chatbots are effective learning tools, enhancing productivity and engagement, though some students preferred traditional methods of learning by using textbooks. Alongside the convenience they provide, chatbots also present potential ethical challenges, such as issues of plagiarism and copyright, when users rely on the information they directly supply. It is recommended to integrate chatbots into teaching practices to improve academic outcomes and support innovative digital pedagogy but teachers should caution students to carefully review and think critically about the information provided by chatbots when they use them.

**Keywords:** Chatbots, Students, Perceptions, Performance, Tanzania.