## The contribution of ICT 3D animation to improving nutrition knowledge and behavior in Ghana

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The purpose of this study is to investigate to what extent the 3-Dimensional (3D) animation as a digital-extension aid can contribute to the improvement of nutrition knowledge and behavior of rural smallholder farmers in Ghana. While Ghana is still facing widespread malnutrition due to unbalanced diets and micronutrient deficiency, a combination of nutrition intervention with agriculture extension service aids, the information communication technology (ICT), could be used to tackle the problem. Therefore, the 3D animation on healthy nutrition, was produced and piloted in the extension service. This study designed two methodological approaches, the baseline and interactive voice response (IVR) survey, to compare the change before and after the farmer watched the 3D animation. In addition, the study also critically evaluated the impact of the methodological design on the result. The results showed that the observed changes in nutrition knowledge and behavior were minimal; hence, the 3D animation did not significantly contribute to changes in nutrition. However, the critical reflection illustrated that the possibility of different influencing factors could affect the retrieved results. These factors included the large group size during the baseline discussion, the facility set-up of baseline fieldwork, the 3D animation language, the IVR survey design, the lack of training on ICT tools, the duration of implementation window between the baseline and IVR follow-up, and the dissemination strategy.

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