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Applications of AI Based Chatbot ChatGPT and E-learning for Practicing Social Casework Skills through Role-play and Web-based Multimedia Technology

Project Number: 6000862

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Grant Type: TDG

Abstract:

This project is an innovative initiative to develop three parts of artificial intelligence (AI) based chatbot Generative Pre-trained Transformer (ChatGPT) and web-based multi-media teaching packages for casework practice skills for social work students. This project aims to enhance social work students' abilities and readiness to face actual cases in an ever-changing society in social casework skills and approaches training by integrating AI-based chatbot ChatGPT and web-based multi-media technologies. It also enables students to prepare and revisit the teaching materials from their homes. It helps students use AI-based technologies and e-learning to promote their ability to learn and discover independently in skills practice. The project offers an opportunity to widen the teaching modalities of casework skills and approaches training and explore the effectiveness of AI-based chatbot ChatGPT and web-based multi-media technology methods in practice teaching. Both qualitative and quantitative research methods will be used to evaluate project outcomes.

Similar to other societies in the world, the socio economic changes have created numerous challenges to families in Hong Kong, such as: the increased level of family caregiver stress and burden (i.e., the repeated pattern of tragedies involving murders of family members), the high suicide rate for youth people (i.e., over 70 suspected fatal student suicides were reported by schools from 2020 to 2022) and the 'hidden' plight of the ethnic minority faced in Hong Kong (i.e., a family tragedy involving three dead girls and mother in an ethnic minority family).

The social worker plays a critical role to handle these individual and family tragedies at the frontline. To help students effectively acquire casework skills and approaches, efficient and effective ways of enhancing the teaching and learning of casework skills and approaches must be acknowledged and developed. Social casework is the primary method of social work. It is focused on the adjustment and development of an individual towards more fulfilling interpersonal relationships with the traditional training format, such as role-play. However, the conventional and typical role-playing arrangement could create challenges or ethical issues for the students during the role-play session (Hodgson et al., 2007; Levitov et al., 1999). Furthermore, the current social casework training may not meet the ever-changing challenges in this contemporary society because the challenges have also become complex and complicated, and there is a lack of practical and valuable technology training materials.