

DEVELOPING A CASE-BASED LEARNING APPROACH IN A MENTAL HEALTH COURSE TO ENHANCE COMMUNICATION SKILLS AMONG FIRST-YEAR VOCATIONAL COLLEGE STUDENTS*

Yuqi Kang¹ and Ratchanee Nokthet²

¹Shandong University of Foreign Affairs, China

²Faculty of Education, Phetchaburi Rajabhat University, Thailand

Corresponding Author's Email: 1191820447@qq.com

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Abstract

This study aimed to develop and evaluate a Case-Based Learning (CBL) instructional approach integrated into a Mental Health course to enhance communication skills among first-year vocational college students, and to examine students' communication self-efficacy and learning satisfaction. The participants were 40 first-year Accounting students from Shandong University of Foreign Affairs, China, selected through cluster random sampling. The study employed a one-group pretest-posttest pre-experimental design. The intervention lasted eight weeks (16 instructional hours) and focused on seven supportive communication skills: active listening, empathic responding, open-ended questioning, assertive communication, summarizing and planning, boundary setting, and support and referral. Data were collected using a Mini-OSCE communication skills assessment, a communication self-efficacy

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questionnaire, and a course satisfaction survey. Quantitative data were analyzed using descriptive statistics and paired-sample t-tests.

The results showed a significant improvement in students' communication skills after the intervention (pretest $M = 13.90$, posttest $M = 29.20$, $p < .001$). Communication self-efficacy reached a high level ($M = 58.90$ out of 70), and students reported high satisfaction with the course ($M = 4.60$ out of 5.00).

The findings indicate that the CBL approach is an effective instructional strategy for enhancing communication competence in vocational mental health education.

Keywords: Case-Based Learning, Communication Skills, Mental Health Education, Vocational Students

Introduction

In contemporary vocational education, communication competence is a critical skill that supports students' academic success, social adjustment, and future career development. For first-year vocational college students, the transition from secondary school to a new learning and social environment often presents challenges in communication and interpersonal interaction. Many students experience difficulties expressing ideas, seeking academic support, and building peer relationships, which may lead to learning pressure, reduced self-confidence, and social isolation (Boud & Feletti, 2013). Mental health factors such as anxiety, stress, and shyness can further hinder effective communication, creating barriers to students' participation and social integration (Lizzio et al., 2002).

To address these challenges, innovative instructional approaches are needed to promote communication competence within vocational education. Case-Based Learning (CBL) offers a promising strategy by integrating authentic or

simulated real-life cases into classroom learning. Through structured discussion, role-play activities, and collaborative problem-solving, CBL enables students to analyze real situations, practice supportive communication strategies, and connect theoretical knowledge with practical experience. Such interactive learning environments encourage active listening, empathy, and clear expression while fostering confidence and collaborative skills (Johnson & Johnson, 2009; Rogers & Farson, 1957; Bandura, 2006).

Therefore, this study developed and implemented a CBL instructional approach within a Mental Health course for first-year vocational college students. The approach aims to strengthen supportive communication skills through case discussion, role-play, and team-based problem solving. By embedding CBL into the curriculum, the study seeks to enhance students' communication competence, support their psychological well-being, and better prepare them for academic and professional contexts.

Objectives

1. To compare the communication skills of first-year vocational college students who receive case-based learning (CBL) in a mental health course between pretest and posttest.
2. To examine the level and characteristics of students' communication skills after receiving CBL in the mental health course.

Literature Review

1) Case-Based Learning (CBL)

Case-Based Learning (CBL) is widely recognized as a student-centered instructional approach that uses authentic or realistically simulated cases to promote active learning, analytical thinking, and contextual problem solving. In CBL environments, learners engage in analyzing complex scenarios, discussing

possible responses, and applying theoretical knowledge to practical situations (Srinivasan et al., 2007; Prince, 2004). This approach shifts learning from passive knowledge reception to active knowledge construction through discussion, reflection, and collaborative inquiry.

The theoretical foundations of CBL are grounded in experiential and social learning theories. Dewey (1938) emphasized that meaningful learning occurs through experience and reflection, while Vygotsky (1978) highlighted the role of social interaction and guided participation in cognitive development. In CBL classrooms, students construct knowledge through interaction with peers, teachers, and contextualized problems, which supports deeper understanding and skill transfer.

Research has shown that CBL is particularly effective in educational contexts that require practical skills and interpersonal competence. Through case discussion and collaborative analysis, students are encouraged to examine multiple perspectives, develop reasoning abilities, and communicate their ideas clearly (Johnson & Johnson, 2009). The effectiveness of CBL is further enhanced when cases are closely related to learners' real-life experiences and when structured reflection is incorporated into the learning process (Andiema, 2022).

In the context of mental health education, CBL is especially appropriate because psychological and interpersonal problems are typically situational and require contextual understanding. Authentic cases allow learners to explore emotional experiences, interpersonal conflicts, and coping strategies in a safe learning environment. By engaging with such cases, students are able to practice supportive communication behaviors and develop empathy toward others.

In the present study, Case-Based Learning was systematically implemented in a first-year vocational college Mental Health course. The instructional design followed a structured CBL cycle consisting of warm-up activities, micro-lectures, case analysis, role-play and observation, instructor feedback, and reflective learning. This structure enabled students to repeatedly

practice communication strategies within realistic scenarios commonly encountered in student life, thereby supporting the development of interpersonal communication competence.

2) Communication Skills Development

Communication skills are commonly defined as the ability to effectively express ideas, understand others' perspectives, and respond appropriately in interpersonal interactions (Hargie, 2011). In mental health contexts, communication involves not only the transmission of information but also emotional understanding, empathy, and supportive responses that foster trust and psychological safety.

Scholars have identified several key communication behaviors essential for effective interpersonal interaction, particularly in supportive or helping contexts. These include active listening, empathic responding, open-ended questioning, assertive communication, summarizing and planning, boundary setting, and providing appropriate support or referral (Silverman et al., 2013; Zhang & Cui, 2020). These skills enable individuals to understand others' emotional states, respond constructively, and manage interpersonal challenges effectively.

Traditional lecture-based instruction has been found to be insufficient for developing communication competence because communication skills require behavioral practice rather than memorization of theoretical concepts. Experiential learning strategies such as role-play, discussion, and scenario-based practice have been shown to significantly improve communication skills and interpersonal confidence (Rogers & Farson, 1957; Prince, 2004). Through repeated practice in simulated interpersonal situations, learners gradually internalize communication behaviors and apply them more effectively in real-life interactions (Bandura, 2006).

In vocational education, communication skills are particularly important because students are preparing to enter the workforce and must interact effectively with colleagues, supervisors, and clients. Developing communication competence during vocational training therefore contributes not only to academic success but also to future employability and professional development.

In this study, communication skills were conceptualized as a set of supportive interpersonal behaviors relevant to mental health contexts. Seven core skills were emphasized: active listening, empathic responding, open-ended questioning, assertive communication, summarizing and planning, boundary setting, and support and referral. These skills were practiced through case analysis and role-play activities and assessed using a performance-based evaluation approach.

3) Communication Self-Efficacy and Course Satisfaction

Communication self-efficacy refers to individuals' beliefs in their ability to effectively perform communication behaviors in relevant situations (Bandura, 2006). Self-efficacy plays an important role in learning because individuals who believe they are capable of performing a skill are more likely to engage in practice, persist in challenging situations, and demonstrate improved performance.

Previous research indicates that experiential learning environments, such as case-based learning and role-play activities, can significantly enhance learners' self-efficacy. When students successfully practice communication strategies in realistic scenarios and receive supportive feedback, their confidence in applying these skills increases (Ryan & Deci, 2000). Increased self-efficacy has been associated with improved learning engagement, persistence, and skill transfer.

Course satisfaction is another important outcome in educational research. Satisfaction reflects students' perceptions of the quality, relevance, and effectiveness of the learning experience (Fraser, 2015). Learning environments

that emphasize relevance, active participation, and psychological safety tend to produce higher levels of satisfaction compared with traditional lecture-based instruction.

Studies examining Case-Based Learning have reported that students often perceive CBL environments as engaging, meaningful, and applicable to real-life situations (Bonwell & Eison, 1991; Chen & Liu, 2021). Through collaborative discussion and problem-solving activities, students experience greater involvement in the learning process, which contributes to both satisfaction and positive attitudes toward learning.

In the present study, communication self-efficacy and course satisfaction were examined alongside communication skill performance to provide a more comprehensive evaluation of the instructional approach. By measuring these outcomes simultaneously, the study aimed to capture not only observable skill development but also students' confidence and perceptions of the learning experience.

Summary

The literature suggests that Case-Based Learning, supported by experiential and social learning theories, provides an effective instructional framework for developing communication skills in higher education. Through authentic cases, collaborative discussion, role-play practice, and reflective learning, CBL enables students to connect theoretical knowledge with real-life interpersonal situations.

However, despite the growing use of CBL in various educational fields, relatively limited research has examined its structured application in vocational college mental health courses with a specific focus on communication skill development. To address this gap, the present study implemented a structured eight-session CBL program embedded within a mental health course for first-year

vocational college students and evaluated its effects on communication skills, communication self-efficacy, and course satisfaction.

Methodology

This study employed a pre-experimental research design using a one-group pretest–posttest design to examine the effects of a Case-Based Learning (CBL) instructional approach on the communication skills of first-year vocational college students in a Mental Health course.

Setting and Participants

The study was conducted at the School of International Business, Shandong University of Foreign Affairs, China, within a compulsory Mental Health course for first-year Accounting students. The population consisted of approximately 240 students across six intact classes enrolled in the course.

Using cluster random sampling, one intact class was randomly selected to participate in the study. The final sample included 40 first-year Accounting students who voluntarily agreed to participate and met the attendance requirement of at least 80% of the course sessions.

Intervention: Case-Based Learning Program

The intervention consisted of an eight-session Case-Based Learning program implemented over eight weeks, with two hours per session (16 hours in total).

Each session followed a structured instructional sequence designed to support communication skill development:

1. Warm-up activity to activate prior experience and establish psychological safety
2. Micro-lecture introducing key mental health concepts and target communication skills
3. Case analysis in small groups using realistic student-life scenarios

4. Role-play and peer observation to practice communication behaviors
5. Debriefing and instructor feedback
6. Reflection (exit ticket) to consolidate learning

The learning activities focused on seven supportive communication skills: active listening, empathic responding, open-ended questioning, assertive communication (I-messages), summarizing and planning next steps, boundary setting, and support and referral.

Research Instruments

Three primary research instruments were used:

1. Mini-OSCE Communication Skills Assessment – A performance-based assessment with a behaviorally anchored rubric measuring seven communication skill dimensions (total score range: 7–35).
2. Communication Self-Efficacy Scale – A 14-item questionnaire measuring students’ confidence in applying communication skills.
3. Course Satisfaction Questionnaire – A 10-item survey measuring students’ perceptions of the learning experience.

All instruments were validated by experts to ensure content validity and demonstrated acceptable reliability.

Research Procedure

The research procedure consisted of three phases:

1. Pre-experimental phase
 - Obtain institutional permission and participant consent
 - Administer communication skills pretest and communication self-efficacy questionnaire
2. Experimental phase
 - Implement the eight-week CBL intervention in the Mental Health course
 - Collect observation data during role-play activities and reflection forms at the end of each session

3. Post-experimental phase

- Administer communication skills posttest and communication self-efficacy questionnaire
- Collect course satisfaction questionnaire and supporting qualitative data.

Data Analysis

Quantitative data were analyzed using SPSS. Descriptive statistics (mean and standard deviation) were used to describe students' communication skills and satisfaction levels. Paired-samples t-tests were conducted to compare pretest and posttest scores in order to determine whether communication skills improved significantly after the CBL intervention at the .05 level of significance.

Qualitative data obtained from observation forms and reflection sheets were analyzed using content analysis to identify patterns of communication skill development and to support the interpretation of quantitative results

Results

Communication Skills Outcomes

Table 1 presents the comparison of students' communication skill scores before and after participation in the Case-Based Learning (CBL) program (N = 40).

Table 1 Comparison of Communication Skills Scores Before and After the CBL Intervention

Evaluation Dimension	Pretest Mean $\pm$ SD	Posttest Mean $\pm$ SD	t-value	p-value	Improvement
Active Listening	2.1 $\pm$ 0.6	4.3 $\pm$ 0.4	22.36	< .001	+2.2
Empathic Responding	2.0 $\pm$ 0.5	4.2 $\pm$ 0.5	21.89	< .001	+2.2

Evaluation Dimension	Pretest Mean $\pm$ SD	Posttest Mean $\pm$ SD	t-value	p-value	Improvement
Open-ended Questioning	2.2 $\pm$ 0.6	4.3 $\pm$ 0.4	23.11	< .001	+2.1
Assertive Communication (I-Messages)	1.9 $\pm$ 0.5	4.1 $\pm$ 0.5	20.75	< .001	+2.2
Summarizing & Next-Step Planning	2.0 $\pm$ 0.6	4.2 $\pm$ 0.4	21.53	< .001	+2.2
Boundary Setting & Consent	1.8 $\pm$ 0.5	4.0 $\pm$ 0.5	22.07	< .001	+2.2
Support & Referral	1.9 $\pm$ 0.6	4.1 $\pm$ 0.4	21.38	< .001	+2.2
Total Score	13.9 $\pm$ 1.8	29.2 $\pm$ 1.6	38.64	< .001	+15.3

Note. SD = standard deviation.

As shown in Table 1, the mean total communication skill score increased significantly from 13.90 (SD = 1.80) at pretest to 29.20 (SD = 1.60) at posttest, $t(39) = 38.64$, $p < .001$.

Significant improvements were observed across all seven communication skill dimensions ($p < .001$). The improvement values ranged from +2.1 to +2.2 points per dimension, indicating consistent gains in all targeted communication competencies.

In addition, the slightly lower standard deviations observed in the posttest scores suggest greater consistency in students' communication performance following the intervention.

Communication Self-Efficacy Outcomes

Students' communication self-efficacy improved substantially following the CBL intervention. The mean score increased from 32.60 (SD = 4.80) at pretest to 58.90 (SD = 3.20) at posttest, $t(39) = 35.72$, $p < .001$.

This result indicates a significant increase in students' confidence in applying communication skills in interpersonal situations. The reduced standard deviation in the posttest scores also suggests greater consistency in self-efficacy among participants after completing the program.

Course Satisfaction

Overall satisfaction with the CBL course was high. The mean satisfaction score was 4.60 (SD = 0.50) on a five-point Likert scale.

High levels of satisfaction were reported for:

- Skill practicality (95.0%)
- Content relevance (92.5%)
- Overall satisfaction (92.5%)

Satisfaction with activity effectiveness (90.0%) and psychological safety (87.5%) also remained positive. Qualitative feedback indicated that students particularly valued the use of campus-based cases, opportunities for role-play practice, and the collaborative learning environment created during the CBL sessions.

Alignment of Results with Research Objectives

The findings directly address the research objectives. Significant improvements in total and dimension-specific communication skill scores support Objective 1, which aimed to examine changes in communication skills following the CBL intervention. The significant increase in communication self-efficacy supports Objective 2, while the high levels of course satisfaction and positive qualitative feedback support Objective 3.

Discussion

The results of this study demonstrate that the Case-Based Learning (CBL) approach effectively enhanced communication skills among first-year vocational college students in a mental health course. The significant increase in Mini-OSCE scores from 13.90 to 29.20 indicates that students showed clear improvement in observable communication performance following the intervention. This finding suggests that CBL can serve as an effective instructional strategy for developing practical communication competencies in vocational education.

One explanation for this improvement lies in the experiential and contextual nature of CBL. By engaging students in analyzing realistic campus-based situations and practicing communication through role-play activities, the learning process allowed students to connect theoretical knowledge with authentic interpersonal interactions. Such contextualized learning supports deeper understanding and facilitates the transfer of skills to real-life situations (Dewey, 1938; Kolb, 1984). In addition, the structured instructional cycle consisting of case analysis, role-play, feedback, and reflection provided repeated opportunities for guided practice, which is essential for developing behavioral competencies such as communication (Silverman et al., 2013).

The study also found a significant increase in communication self-efficacy, with scores rising from 32.60 to 58.90 after the intervention. According to self-efficacy theory, mastery experiences are a primary source of confidence development (Bandura, 2006). Through repeated role-play practice and supportive feedback from peers and instructors, students gained successful communication experiences that strengthened their confidence in applying these skills in real situations.

Furthermore, students reported high satisfaction with the CBL course ($M = 4.60$), particularly regarding the practicality of communication skills and the relevance of course content. The use of authentic cases reflecting common

student experiences increased engagement, while collaborative discussions and role-play activities created a psychologically safe learning environment that encouraged active participation. Such learning conditions are particularly important in communication training, where students must feel comfortable experimenting with interpersonal behaviors and receiving feedback.

Overall, the findings suggest that Case-Based Learning provides a pedagogically sound approach for developing communication competence, strengthening self-efficacy, and promoting positive learning experiences among vocational college students.

Recommendation

Based on the findings of this study, Case-Based Learning (CBL) can be considered a promising instructional approach for developing communication skills in vocational mental health education. Vocational institutions may integrate CBL into mental health courses to provide students with opportunities to practice communication skills through authentic scenarios and role-play activities. Instructors are encouraged to design case materials that reflect students' real-life experiences and gradually extend to workplace-related contexts. In addition, teacher professional development may be beneficial to strengthen instructors' abilities to facilitate discussions, guide role-play activities, and provide constructive feedback that supports reflective learning.

Future research should further examine the effectiveness of CBL using controlled experimental designs to strengthen causal interpretation. Longitudinal studies may also investigate whether improvements in communication skills and self-efficacy are sustained over time. In addition, including students from different majors and institutions would help improve the generalizability of the findings. Exploring additional outcomes such as help-seeking behavior, mental health

literacy, and interpersonal functioning may also provide a more comprehensive understanding of the impact of CBL in vocational mental health education.

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