

The influence of psychological guidance and exercise on the innovation and practice of English-Chinese translation teaching

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Abstract

Mental health (MH) issues are prevalent among college students (CS), and with the quick changes in today's culture, family, school, and other variables play a role. Under the influence, Children are subjected to various psychological stresses in their studies and daily lives, which has a detrimental effect on their healthy lifestyle and learning. This study aimed to investigate the influence of psychological counseling and exercise on the invention and practice of English-Chinese translation (ECT) instruction. This study indicated that physical activity has a good influence on the mental health of college students. This study assessed the class attention of CS before and after psychological counseling and exercise intervention using the attention stability test scale, the attention concentration test scale, and the visual tracking ability test scale. Significant differences exist between CS before and after exercise and two months after the experiment, as well as between the concentration and before the experiment. The visual tracking ability of college students before and after the exercise and two months after the experiment is still considerably different from that before the trial.

Keywords: Psychological counseling; Exercise; English-Chinese translation; Teaching innovation

1. Introduction

Mental health (MH) difficulties are common among CS. With the rapid changes in the contemporary culture, family, school, and society, CS are subjected to numerous psychological stresses in their studies and daily lives, which harms their healthy existence and normal learning (Hards *et al.*, 2022). Physical activity has a good influence on CS' MH. It can assist kids in developing a healthy, optimistic outlook on life and ease numerous study and life difficulties. Along with the reform of the primary school curriculum and the improvement of face-to-face education, the psychological issues of CS are developing in the modern day (Dragioti *et al.*, 2022). It has garnered considerable interest in educational circles. Several CS schools have also introduced mMH education classes for unhealthy psychological issues. Moreover, by actively incorporating psychology into the teaching of numerous disciplines, health education information is utilized for training students from all perspectives to develop a good psychological quality, creating the groundwork for a more effective future response to social difficulties.

Psychological guidance is based on the laws of human psychological activities, the relevant theories and techniques of psychology, verbal and non-verbal methods, dredging people's psychology and thoughts to change or improve people's negative cognition, emotion, attitude, and behavior, and bring them to the level of health psychology (Merikanto *et al.*, 2022). Humanistic treatment

and psychological counseling reinforce one another. Instructors should embrace scientific methods and procedures to communicate with students, assist them in relieving psychological pressure, eliminate ideological misunderstanding, and maintain a psychologically healthy state in their students. Psychological counseling and humanistic care are interconnected and indispensable. Innovation and entrepreneurship education in colleges and universities should be student-focused, actively educate and guide students, and at the same time provide psychological guidance to those who fail in the process of entrepreneurship and those with poor entrepreneurial psychology, correct psychological misunderstandings, and eliminate psychological barriers (Dimas *et al.*, 2022). This study aimed to investigate the influence of psychological counseling and exercise on the invention and practice of English-Chinese translation (ECT) instruction. The purpose of promoting sports is to stimulate the enthusiasm and initiative of CS in learning. In college physical education, teachers should view students as the main body of the classroom, continually instill the benefits of physical exercise and fitness, and stimulate student interest in physical activity. Because the physical quality of CS students has been declining, the education department has developed sports strategies. Strong linkages exist between sports and the people-oriented education concept; therefore, promoting sports has facilitated the implementation of the people-oriented new education concept in colleges and universities. Under

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the influence of reform and opening up, the social and economic environment is undergoing profound change; therefore, colleges and universities must keep up with the pace of social development and improve students' physical quality and their primary teaching objective, as well as improve the teaching quality and effectiveness of college physical education classes reasonably and efficiently (Alavudeen et al., 2021).

2. Literature Review

Mental health is a state of mind with lasting features; mentally healthy persons can demonstrate flexibility and tackle life's challenges by maximizing their potential. Although the usual division of MH has not yet been agreed upon, psychoanalysis reflects its strength. Pay attention to the sublimation of people's inner psychology. Behaviorism pays attention to life, actively summarizing experiences to enhance learning and progress, while humanism encourages people. According to a summary of pertinent ideas such as self-realization, it is highlighted that individuals with mental illness (MH) must attain adequate emotional control, a robust behavioral will, a united internal and external identity, and harmonious interpersonal interactions.

Traditional ideological and political education in colleges and universities focuses more on extensive education. The goal of education is too idealistic, the awareness of service and education is absent, the education method is too simplistic, and the lack of humanistic care and psychological guidance for students has diminished the efficacy of education (Kumar, Fang, & Pirogova, 2021).

Our society is transforming, and ideological and political education is significantly being tested. In the past, "cramming" and "cramming" focused primarily on theoretical preaching ran counter to the "development of people's free personality" promoted by humanistic care. Humanistic care and psychological therapy will dismantle this antiquated educational model and integrate advanced concepts into the practice of computer science. For instance, most of CS's job counseling courses are given in big groups to assist the employment process and boost the school's employment rate while ignoring the ultimate goal of CS's comprehensive growth (Kim & Cruz, 2021).

Individual subjectivity reflects contemporary people's understanding and care for their inherent strengths, life value, and future chances. Yet, modern entrepreneurial education has disregarded the fundamental role of CS, exhibiting numerous shortcomings and issues, the incorrect direction of training objectives, and a significant reality-ideal gap. Numerous businesses believe contemporary CS are intelligent

but incompetent, lacking practical aptitude and hands-on skills. The fact that colleges and universities have not created a practice platform for student innovation and entrepreneurship reflects a significant issue. The fundamental purpose of higher education is to enhance the inventive quality of CS and cultivate practical, employment, and entrepreneurial skills. It is vital to create a humanistic environment for the educated and to provide the required psychological guidance (Lee, Kim, & Shin, 2022).

There are peaks on the side of the ridge, and their distance differs from their height, as seen from the horizontal. Modern CS is a generation brimming with individuality; every member of this age seeks information, innovation, the truth, and personal growth. Marx stated that a person's personality development is the "full expression of all talents." Unfortunately, many colleges and universities have disregarded their uniqueness and diversity, the traditional education model has impeded the development of the personality and creativity of CS students, and there are fewer and fewer things that belong to individuals. For instance, the employment guidance course in some colleges and universities is general guidance, which focuses primarily on the common issues in CS' career selection while ignoring individual differences; the lack of pertinence in education results in the absence of personal guidance and ineffective employment guidance education. Some students lack confidence in entrepreneurship, hesitatingly approach certain entrepreneurial ventures and prospects, and lack the bravery to launch a business. Some pupils are not steadfast in their desire to be entrepreneurs and have poor resilience to setbacks; they can only embrace the success of entrepreneurship but cannot accept its failure. When confronted with successive failures, some students cringe or even choose to give up (Vaquero-Cristóbal et al., 2021). In addition, due to their lack of psychological resilience, they cannot correctly deal with entrepreneurial failure, which leads to a vicious cycle and hinders their future development, as depicted in Figure 1.

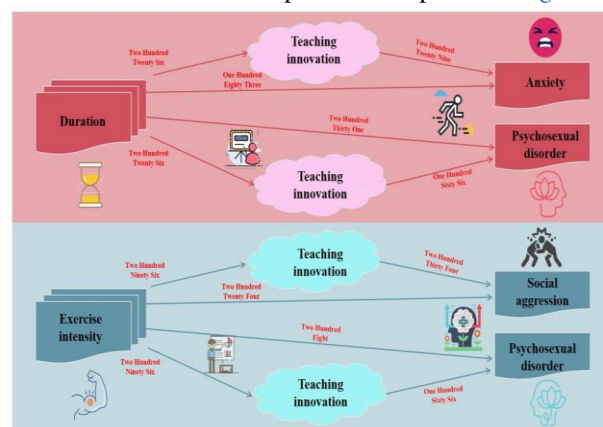


Figure 1. The psychological impact of innovative teaching

CSs better entail no evident mental disease when difficulties arise. They must transcend the sub-health state, such as low learning efficiency—lack of learning motivation and objectives, weak self-control, and frequent emotional agitation. Anxiety and a lack of interest in school and life are examples of mental "sub-health" Negative performance is sometimes overlooked since it is not evident. Still, for students, there are significant impediments to the growth of their capacity building, so they engage in psychological interventions. Extra consideration should be given to the "sub-health" state during health analysis to boost students' learning. We should have the proper direction of active concentration and optimism in life.

3. Research Methodology

3.1 Research object

Through addressing the MH of CS, studying the effect of exercise on their MH, and providing pertinent recommendations, we hope to enhance the learning of CS. Keep a healthy mental state and approach social life with greater vigor. Schools have also introduced mMH education courses and actively integrated psychology into various disciplines. Health education knowledge is utilized to instruct students from all perspectives to develop a healthy psychological quality, establishing a solid foundation for better addressing future social difficulties—the influence of exercise on CS students' classroom focus.

3.2 Experimental method

Twenty-eight students from a university engaged in the innovation and practice of English-Chinese translation (ECT) teaching were taken as the subjects of the experiment; however, seven students were absent from the part of the experiment due to requesting leave during the investigation they were determined as invalid subjects, and the data were eliminated, leaving 21 effective issues, including 18 boys and 3 girls, with an average age of (21). The experiment aimed to compare the changes in CS' classroom attentiveness before and after exercise intervention. During the weekly ECT teaching innovation and practice session, the exercise intervention program executed exercise intervention with the subjects. The subjects were expected to follow the teacher's motions while exercising throughout the intervention. The movements should have been calm and generous at the same time as the teacher's movements (Sun et al., 2021b). Before designing the intervention program, we consulted with specialists in sports training, aerobics, and sports psychology. We determined that indoor aerobics might

serve as the exercise intervention program in the experiment. However, the movement arrangement of indoor calisthenics should be basic and straightforward, the exercise duration should not be excessively long, and the exercise load should be of medium and low intensity. Therefore, this set of indoor calisthenics exercises was developed after considering the suggestions of experts and the actual situation of the theoretical class. It is divided into two parts: sitting posture and standing posture. The sitting posture consists primarily of head movement and upper limb movement.

In contrast, the standing posture consists mainly of small load movements such as stretching, side, and step (Sun et al., 2021a). The independent variable is the exercise intervention program, while the dependent variable is CS's class attention capacity.

Before the formal experiment, a preliminary investigation was conducted on 10 CS who were not the experimental subjects. The preliminary experimental results demonstrated that students could perform the exercise actions designed in the experiment and be used in the formal investigation; however, in assessing students' attention, the written instructions of the formal experiment were unclear. The attention stability test template comprises 625 small cells (25 rows by 25 columns). Subjects were required to locate the small grid containing four small circles with the most significant speed within the allotted time and mark it with a "." The score is 197 points; the more significant the score, the more stable the subject's attention.

Before the weekly ECT teaching innovation and practice class was officially held, the attention stability, concentration, and visual tracking ability of CS were measured between November 7, 2017, and November 21, 2017 (the attention stability test was administered on November 7, 2017, attention concentration test was administered on November 14, 2017, and visual tracking ability test was administered on November 21, 2017), recording the test scores to obtain the initial data of various indicators. Experimental intervention: After 45 minutes of each sports psychology course, students participated in three 5-minute exercise interventions for 15 minutes. During the intervention, the participants were required to follow the instructor's instructions for each activity actively.

After the exercise intervention, the teacher led the subjects through relaxation training to induce a quiet state. CS's attention stability, concentration, and visual tracking were measured again. Additionally, to prevent the practice effect in the test, the post-test rearranged the order of the contents of each test scale (while maintaining the same

reliability and validity) to obtain the data of various attention indicators of CS after exercise. In addition, to determine whether the exercise intervention has a lasting effect on CS's attention, two months after the experiment's conclusion, CS's attention stability, concentration, and visual tracking ability were re-measured, compared, and analyzed with the data collected before and following the investigation. The scoring rules are the same before and after the experiment (Sanni et al., 2022).

3.3 Psychometric method

The attention stability test template, attention concentration test template, and visual tracking ability test template from the Attention Test Scale were used to test the classroom attention of CS before and after exercise intervention and two months after the experiment. The scale is widely used for the attention measurement of sports CS and athletes. The correlation coefficients of the attention stability test template, the attention concentration test template, and the visual tracking ability test template were statistically significant (Krpan, Galizzi, & Dolan, 2021). The attention stability test template comprises 625 small cells (25 rows by 25 columns). Subjects were required to locate the small grid containing four small circles with the most significant speed within the allotted time and mark it with a "." The score is 197 points; the more significant the score, the more stable the subject's attention. The concentration test template consists of 25 lines of 0-9 numbers with identical numbers. Subjects were instructed to calculate the logarithm of the sum of two adjacent numbers equal to 10 as quickly as possible within the allotted time and to represent it with horizontal lines. The scoring rules are identical to the template for the attention stability test, with a maximum score of 143 points; the higher the score, the greater the concentration. The test template for visual tracking ability consists of two parts: the first consists of 10 sets of interlaced curves, and the second consists of 25 sets of interlaced curves. Subjects must carefully follow each curve from the left side at the fastest speed possible within the allotted time and record the serial number of each curve at the beginning of the right square. One point is deducted for each incorrect or absent serial number, and the maximum score is 35; the higher the score, the greater the visual tracking skill (Coelho, Amorim, & Prata, 2003).

3.4 Mathematical statistics

Utilize SPSS 21 The software tested the difference in CS' attention test data before and after the exercise (the significance level was set to $P < 0.05$, and the very significant level was set to $P < 0.01$). From this, we can judge the intervention effect of exercise on CS' English translation

teaching innovation and practice classroom attention (Peng & Li, 2021).

4. Results

4.1 The immediate effect of exercise on improving college students' attention

The test results of CS' attention concentration before and after exercise intervention were analyzed by t-test (Figure 2): The concentration level of CS before and after exercise was significantly different ($P < 0.01$). This result shows that exercise can effectively improve CS' concentration ability.

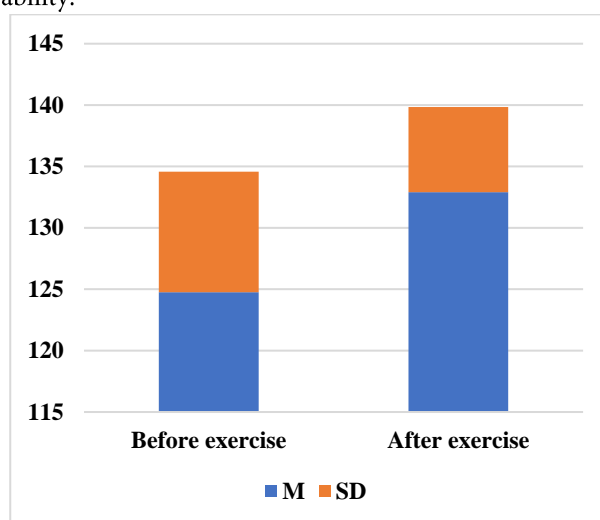


Figure 2. Comparison of college students' concentration before and after exercise (N = 21)

The test results of the visual tracking ability of CS before and after exercise intervention were analyzed by t-test (Table 1): There was a significant difference in the visual tracking ability of CS before and after exercise ($P < 0.05$). This result shows that exercise has a very significant effect on improving the visual tracking ability of CS (Chang, Sun, & Wu, 2022).

Table 1

Comparison of visual tracking ability before and after exercise (N = 21)

Stage	M ± SD	t	Sig. (Bilateral)	P
Before exercise	32.24 ± 2.60	-3.85	0.001	< 0.05
After exercise	34.00 ± 1.38			

According to the t-test analysis of CS' attention stability test results before and after exercise intervention (Table 2). There was no significant difference in the level of attention stability of CS before and after exercise ($P > 0.05$). This result shows that exercise does not affect the stability of CS' attention (Aslan & Atesoglu, 2021).

Table 2

Comparison of college students' attention stability before and after exercise (N = 21)

Stage	M ± SD	T	Sig. (Bilateral)	P
Before exercise	185.48 ± 8.28	-0.95	0.354	>0.05
After exercise	187.71 ± 10.16			

4.2 Consecutive effects of exercise on college students' attention

The subjects selected for the experiment are CS. Two months after the experiment's conclusion, all the

subjects continue to reside on campus, and their eating conditions and living surroundings remain consistent with their living conditions before the investigation. Two months following the trial's conclusion, CS's classroom attentiveness was tested again to examine the ongoing influence of exercise on classroom attention.

The findings of CS's attention concentration tests were subjected to univariate analysis of variance before, during, and two months after the experiment's conclusion. The results are presented in Table 3.

Table 3

ANOVA of undergraduate concentration between different test stages

Test item	Stage	Number of people	Average number	Standard deviation	F	P
Attention focusing	Before the experimental intervention	21	124.76	9.82	6.681	0.002
	After the experimental intervention	21	132.90	6.94		
	Two months after the experiment	21	132.19	6.86		

In CS' concentration, there were significant differences in the test results of the three stages of the experiment (P < 0.01), and further multiple comparative analysis found that (Table 4) there was a significant difference in CS' concentration test scores before and after exercise intervention (P < 0.05). There was a significant difference between the CS' attention concentration test results before exercise intervention and two months after the end of the

experiment (P < 0.05). There was no significant difference between the results of CS' attention concentration test after exercise intervention and two months after the end of the experiment (P > 0.05), indicating that two months after the exercise intervention, the attention concentration ability of CS has not decreased, and has always maintained at the improved level, exercise has a continuous effect on CS' attention concentration (Zahoor et al., 2022).

Table 4

Results of multiple comparisons of undergraduate concentration between different test sessions

Test item	Stage(I)	Stage(J)	Mean difference (I-J)	Standard error	P
Attention focusing	Prior to the experimental intervention	After the experimental intervention	-8.143	2.625	0.011
		Two months after the experiment	-7.429	2.615	0.022
	After the experimental intervention	Prior to the practical intervention	8.143	2.625	0.011
		Two months after the experiment	0.714	2.130	0.982
	Two months after the experiment	Prior to the experimental intervention	7.429	2.615	0.022
		After the experimental intervention	-0.714	2.130	0.982

Univariate analysis of variance was conducted on the results of the visual tracking test of CS before and after

exercise intervention and two months after the end of the experiment. It was found that (Table 5).

Table 5

ANOVA of visual tracking ability of college students between different test stages

Test item	Stage	number of people	average number	Standard deviation	F	P
Visual pursuit	Prior to the experimental intervention	21	32.24	2.60	5.330	0.007
	After the experimental intervention	21	34.00	1.38		
	Two months after the experiment	21	33.86	1.62		

In terms of the visual tracking ability of CS, there was a significant difference in the test results of the three stages of the experiment (P < 0.01). Further multiple

comparative analysis found that (Table 6) there was a significant difference in the visual tracking test scores of CS before and after exercise intervention (P < 0.05).

There was a significant difference in visual tracking performance between CS before exercise intervention and two months after the end of the experiment ($P < 0.05$). There was no significant difference between the results of the visual tracking test of CS after exercise intervention and two months after the end of the

experiment ($P > 0.05$). This shows that two months after the end of exercise intervention, the visual tracking ability of CS has not decreased, and has always maintained at the improved level, exercise has a continuous effect on CS' attention concentration (Tho, 2022).

Table 6

Results of multiple comparisons of visual tracking ability of college students between different test stages

test item	Stage(I)	Stage(J)	Mean difference (I-J)	Standard error	P
visual pursuit	Prior to the experimental intervention	After the experimental intervention	-1.762	0.599	0.005
		Two months after the experiment	-1.619	0.599	0.009
	After the experimental intervention	Prior to the practical intervention	1.762	0.599	0.005
		Two months after the experiment	0.143	0.599	0.812
	Two months after the experiment	Prior to the experimental intervention	1.619	0.599	0.009
		After the experimental intervention	-0.143	0.599	0.812

5. Discussion

According to the research premise, the experiment results indicate that exercise intervention is good for improving CS's classroom attentiveness. In previous research, it was revealed that medium and low-intensity loads have a substantial impact on enhancing the ability for attention and focus when the intensity level of sports exercise is at this level. The exercise intervention mode chosen in the experiment is self-compiled indoor calisthenics, characterized by moderate exercise intensity, simple and flexible movements, and fashionable and dynamic music. After practice, it can effectively regulate the nervous system to alleviate fatigue and enhance learning efficiency. In addition, research indicates that aerobics and other physical performance sports might alter a person's psychological state and improve their focus. In the experiment, students can physically and mentally relax through exercise and strengthen their concentration capacity (Ntsiful et al., 2022).

Comparing the test results of CS's attention concentration before and after exercise intervention reveals that there are indeed significant differences between the two, indicating that exercise intervention has effectively enhanced CS's attention concentration ability in a short period, which is consistent with the conclusions of previous research. In addition, we compared the results of CS' attention concentration re-measured two months after the conclusion of the exercise intervention to the results before and after the experiment and found that after the conclusion of the exercise intervention for two months, CS' concentration ability in class is still significantly different from that before exercise intervention, but at the same level as after exercise intervention. This may be attributable to

the fact that exercise is a relatively trendy exercise strategy; practitioners experience a sensation of freshness during exercise, hence stimulating the enhancement and growth of proprioception and nervous system transmission. With the creation of new nerve conduction, CS's improved concentration in class has been sustained for an extended period (Di Giacomo et al., 2021).

Visual tracking ability is a form of visual attention that enables one to locate and continuously monitor a target. Prior research has demonstrated that the student is typically required to maintain fixation on a stationary or moving object to train visual tracking ability. As research has progressed, several researchers have hypothesized that visual tracking ability, a type of visual attention, can also be enhanced during movement. In this study, by comparing the test results of the visual tracking ability of CS before and after exercise intervention, it was determined that there is a significant difference in the visual tracking ability of CS before and after exercise intervention and that the visual tracking ability of CS can be enhanced through exercise, confirming the findings of previous studies. The reason may be that, during CS exercises, each action is performed under the supervision of the primary examiner, necessitating the CS always to pay attention, observe each action performed by the instructor and the transitions between activities, and then mimic. Hence, this exercise method is a method of training and enhancing CS's visual tracking ability. In addition, exercise is the experimental intervention used for the study. Exercise is a type of exercise with a small range and moderate amount of exercise; it can alleviate physical and mental fatigue and promote the recovery of physical and mental functions by improving the microcirculation of the body, making the nerve response more stimulating, and

effectively strengthening the connection between the visual nerve and the brain center, thereby contributing to the improvement of visual tracking ability (Carver et al., 2005).

6. Conclusion

The discussion of CS' MH requires not just understanding the primary influencing elements. We also need to pay greater attention to the "sub-health" condition. Furthermore, CS's physical activity encourages pupils to exceed their sub-health condition. One of the successful techniques positively influences the development of mental health, physical quality, personality, and overall growth. Encouraging CS' physical activity is the key to ensuring students' physical and mental growth, for which we require ways. In the unique and practical classroom of ECT instruction for CS, psychological therapy and exercise have significant, long-lasting effects on enhancing students' ability to concentrate. Counseling and exercise have considerable advantages for improving the visual tracking skills of CS in an innovative and effective ECT classroom. The psychological therapy and exercise procedure is adaptable and straightforward, which can significantly enhance CS's focus. In the creative and practical teaching of ECT, it is appropriate for college instructors, based on the students' attendance status, to add a certain amount of micromovement to the classroom to better fulfill the teaching objectives and enhance the learning effect. The visual tracking capacity of CS before and after exercise and two months after the experiment is still considerably different from that of CS before the trial. Psychological therapy and exercise can enhance concentration and visual tracking in the creative and practical ECT classroom for CS instruction. CS's participation in sports requires training. The importance of physical education programs as a guide Facilitator help kids develop a passion for involvement and increase their enjoyment of the physical activity. It is necessary to promote various colorful sports activities in physical education classroom teaching type construction, for instance, by having teachers assist students in establishing different sports club groups, guiding students to participate in various extracurricular sports activities, bridging the gap between students' estrangement,

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enhancing students' understanding of one another, and establishing a good relationship for students' suitable participation mode of physical exercise.

7. Research Implications and Future Directions

This research has theoretically expanded the body of knowledge. The literature indicates that exercise considerably affects students' mental health and academic performance. In addition, the analysis revealed that the influence of exercise could increase students' academic performance. Furthermore, the study showed that when teachers motivate students to enhance their performance in the classroom, students' educational performance might improve. Physical exercise and health activities can considerably increase the reliability of student instruction.

This study demonstrated that physical activity is essential for kids and that teachers must encourage pupils to improve their physical health. The students should also be inspired by their parents. Institutions are expected to offer students opportunities to improve physical health through exercise. By working on various health-related initiatives, students in better health might receive better health care. Critically, the availability of resources and internal motivation might influence students' performance to improve their physical health.

The research includes some potential future areas that researchers may pursue in future research. The scholars must enhance these research findings by identifying the moderating effect of student psychological empowerment. Students from diverse locations of the world should be polled for data, and the results of a multigroup analysis should be undertaken. These research findings are valid, but the data acquired from students can prove their validity. Thus, this research has important implications for future studies, which must be enhanced over time.

Acknowledgments

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