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EFFECT OF PROBLEM-SOLVING TRAINING ON SOCIAL ADJUSTMENT AMONG ADOLESCENCE IN KUALA LUMPUR

Saeideh Rezaei [1], Mohtaram Rabbani [2], Mimi Fitriana Zaini [3]

[1] *School of Social Sciences, University Sains Malaysia (USM), Malaysia.*

[2] *Academic Unit of Human Communication, Learning, and Development Faculty of Education, Hong Kong University, Hong Kong.*

[3] *Faculty of Behavioural Sciences, Help University, Malaysia.*

ABSTRACT

Background: This quasi-experimental research study focused on addressing the issue of social adjustment among adolescent students. It involved two groups - an experimental group and a control group - in pre-test and post-test designs.

Aim: The aim of the study was to investigate the effectiveness of problem-solving training in improving students' social adjustment.

Method: The study included a population sample of 70 adolescent students, aged between 12 to 18, from an international school in Kuala Lumpur. Two questionnaires were utilized: a demographic questionnaire and Bell's social adjustment inventory. Descriptive analyses and independent t-tests were conducted to assess the impact of problem-solving training on students' social adjustment. The training consisted of five sessions conducted weekly, each lasting 1 hour. Data was collected through pre-test and post-test assessments.

Results: The results indicated a significant improvement in social adjustment among students who underwent problem-solving training.

Conclusion: Problem-solving training emerged as an effective intervention to enhance adolescents' social adjustment and equip them with strategies to navigate life challenges more effectively.

Implications: These findings suggest that implementing problem-solving training programs in schools, tailored to different age groups of students, could positively impact their social adjustment and overall well-being.

Keywords: *Adolescence, Problem-Solving, Problem-Solving Training, Social Adjustment*

Corresponding author:
Mohtaram Rabbani
Email: mohtaram@hku.hk

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INTRODUCTION

Adolescence marks a crucial transitional phase between youth and maturity, encompassing significant biological, psychological, and social transformations. This period is often described as turbulent and challenging (Göllner et al., 2017), as teenagers grapple with various obstacles that can lead to personal and social difficulties. The onset of puberty is commonly associated with intense emotions, stress, self-consciousness, and mood swings, reflecting the prevailing perspectives of both experts and the general public on this developmental stage (Simmons, 2017). Adolescence is characterized by profound psychosocial changes that coincide with the rapid physical changes of puberty, encompassing the formation of personality, individuation from parents, and the cultivation of close relationships (Simmons, 2017).

The issues confronting youth are serious and complex, encompassing biological, psychological, and social concerns. These challenges often manifest as mental health issues such as abrupt mood swings, irritability, risky behaviors, and depression, highlighting the need for focused attention (Thanikaivel & Priya, 2016). Although considerable evidence links adolescent social and learning work, much of the findings have been cross-sectional or associated to date, indicating that problems in one field tend to co-occur with issues in another.

Problem-solving is usually perceived in the daily and technical sense of cognitive function. Many people need to be rewarded for problem-solving. In formal educational settings, however, learning to solve problems is too rarely needed, in part because of our understanding of its processes (Jonassen, 2000). According to Mayar (1990), problem-solving can be described as a description of the cognitive processes that concentrate on shifting the given state to the final state where the solution method is not apparent (Dostál, 2015). Students should be allowed to develop and adapt a range of appropriate methods for problem-solving and to track and focus on the process of mathematical problem-solving in instructional programs during problem-solving (Özsoy & Ataman, 2017).

Likewise, Kilpatrick et al. (2001) argue that problem-solving offers an essential framework for students to study numbers and other mathematical concepts, and improves problem-solving skills as they have opportunities to solve problems themselves and see problems being solved. However, we live in a complex and difficult world, so we need to acquire a set of social skills to succeed and thrive in this world and to deal effectively with the problems we face (Ruberry et al., 2018). Research has consistently endorsed the construction and predictive validity of social acceptance over the last several decades (DeRosier & Lloyd, 2010).

Recent studies have shed light on the current challenges faced by adolescents in navigating social and problem-solving issues. A study by Johnson et al. (2020) highlighted the impact of social media on adolescent social skills development, emphasizing the need for effective problem-solving strategies in the digital age. Furthermore, research by Smith and Brown (2021) explored the role of peer relationships in shaping adolescents' problem-solving abilities and social adjustment. Lee and Kim (2022) examined the effects of the COVID-19 pandemic on adolescent social interactions and problem-solving skills, emphasizing the importance of adaptive coping mechanisms in times of crisis. Additionally, Garcia et al. (2020) investigated the relationship between academic stress and social adjustment among adolescents, highlighting the need for targeted interventions to support students in managing academic challenges effectively.

Despite the growing body of literature on adolescent social and problem-solving challenges, there remains a gap in understanding how children with poor social approval, such as those facing peer rejection, experience overlapping difficulties leading to negative outcomes like suicide, substance abuse, underachievement in school, delinquency, antisocial behavior, and depression (Rucinski et al., 2018). This highlights the critical need to investigate how social acceptance and recognition impact adolescents' academic self-esteem, academic performance, and social behavior, as well as their overall social development.

The theoretical framework that underpins this study is positive thinking, which emphasizes the importance of cognitive processes in shaping individuals' interpretations of events and their responses to challenges. Positive thinking, as defined by Ehrenreich (2009), involves maintaining a positive mindset through constructive mental comments that can alter perceived realities, leading to a sense of well-being, hope, belonging, and intention. This framework suggests that individuals who engage in positive thinking are more likely to adopt an optimistic explanatory style, attributing success to internal factors and viewing setbacks as transient and external (Seligman & Pawelski, 2003). Positive thinking serves as a key element in understanding how individuals approach problem-solving and social adjustment in various contexts, including difficult circumstances like academic stress or peer rejection.

STUDY AIM

The primary objective of this study is to examine the impact of problem-solving training on the social adjustment of adolescent students, while overcoming several limitations inherent in a quasi-experimental design. The study posits the hypothesis that problem-solving training influences the social adjustment of adolescent students in Kuala Lumpur.

METHODOLOGY

The target population for this research was international students registered in the public residential school in Kuala Lumpur. This target population was chosen because it comprises a diverse group of international students with varying cultures and mother

tongue languages who study together. The inclusion criteria for participants were male and female international students aged between 12 to 18 years old studying at the International School.

For sampling, a random sampling method was employed by selecting 70 students from the total list of students' names in the school who were between 12 to 18 years old. These 70 students were divided into experimental and control groups by employing paired sampling based on age and gender for each group. Probability sampling, specifically random sampling, was utilized to ensure that everyone in the population had an equal chance to participate in the research (Setia, 2016).

The current study utilized a quantitative method with a correlational design. Quantitative methods were chosen over qualitative methods because they focus on analyzing the impacts of variables by gathering responses from a population sharing similar characteristics (Kothari, 2004). The researcher employed an independent t-test to explore the impacts of variables (Koo & Li, 2016). The independent t-test was deemed suitable for this research as it aimed to investigate the impact of problem-solving training on developing social adjustment and problem-solving skills among adolescent students in Kuala Lumpur. Questionnaires were used to collect information, which was then analyzed to draw conclusions (Koo & Li, 2016).

The research questionnaires were printed and distributed among students in the class at the schools, and they completed the questionnaires. A total of 70 students completed both the pre-test and post-test questionnaires, but only 35 of them participated in problem-solving training in this study. From this sample, all questionnaires were returned by the students in the class, with pre-test and post-test questionnaires collected using Google Forms. Therefore, the total number of 70 participants constituted the final sample for the study.

MEASURES

Social Adjustment: Social adjustment refers to the adaptation of a person in social interactions with others, both within and outside of the school, as reflected in the attitudes and behaviours of the individual (Sekar & Lawrence, 2016). In this research, social adjustment is assessed using Bell's Test of Social Adjustment Inventory. The Bell's Adjustment Inventory is a suitable and acceptable instrument that evaluates social adjustment across four scales: home, health, social, and emotional. The level of adjustment in these four domains is determined by the number of "yes" responses, with scores ranging from 0 to 100. These scales, comprising 140 items, assess the mentioned factors and use a total score to differentiate between maladjusted and well-adjusted individuals (Marsh, 1943).

Problem-Solving Training: Everyone faces different issues on a daily basis, but what matters is how each person deals with these challenges in their lives and how they go about solving them (D'Zurilla & Maydeu-Olivares, 1995). The problem-solving training in this study consisted of five sessions, beginning with defining the problem and concluding with identifying suitable solutions.

The study aimed to determine whether problem-solving training could improve social adjustment. The data collected were analyzed using the Statistical Package for the Social Sciences (SPSS) version 23. The variables were examined using an independent t-test to assess the impact of all study variables collectively and to identify the effect of problem-solving training on social adjustment.

RESULTS

The demographic profile in this study included age, gender, nationality, and birth order. The total number of participants was seventy from the selected international school who completed the questionnaires. The age of the participants was measured in years at the time of data collection for the study. The average age of the participants was 15.69 years old (SD= 2.068), with ages ranging from 12 to 18 years old. There were 41 participants (58.6%) who were male students and 29 participants (41.4%) who were female students.

The participants represented various nationalities: 19 (27.1%) were Iranian, 7 (10.0%) were Malaysian, 9 (12.9%) were Afghan, 11 (15.7%) were Indian, 15 (21.4%) were Chinese, and 9 (12.9%) were Pakistani. To analyze the data and address the research question of whether problem-solving training improves social adjustment among adolescent students in Kuala Lumpur, an independent-sample t-test was used. The test compared the pre-test scores between the experimental and control groups in social adjustment among adolescents (~~see~~ Table 1). The results showed no significant difference in scores for the pre-test between the experimental group (M=44.08, SD = 8.95) and the control group (M = 44.65, SD = 9.11; t (68) = -.26, p= .79, two-tailed).

Table 1: Differences in measures (problem solving training and social adjustment) between experiment and control group in pre-test

	Mean	*SD*	t	p
Pre-Test (experiment)	44.08	8.9	-.26	.792
Pre-Test (control)	44.65	9.11		

An independent-sample t-test was conducted to compare the post-test scores between the experimental and control groups in social adjustment among adolescents (~~see~~ Table 2). The results revealed a significant difference in scores for the post-test between the experimental group (M=33.14, SD = 6.01) and the control group (M = 41.02, SD = 9.20; t (58.5) = -4.24, p= .00, two-tailed).

Table 2: Differences in measures between experiment and control group in post-test

	Mean	*SD*	t	p
Post-Test (experiment)	33.14	6.0	-4.24	.000
Post-Test (control)	41.02	9.20		

DISCUSSION

The research hypothesis posited that problem-solving training has an effect on social adjustment. The results indicated a significant improvement in the total score of social adjustment. This suggests that problem-solving training led to increased social adjustment among the experimental group, while no differences were observed in the control group. Those who received problem-solving training scored lower in total social adjustment, with lower scores indicating higher adjustment. Explicitly, problem-solving training enhanced social adjustment among students. In line with previous research, Samadi and Sohrabi (2016) found that problem-solving skills directly impact personality adjustment, suggesting that personal change can be predicted through problem-solving processes. Similarly, research by Webster-Stratton and Hammond (2001) indicated that child problem-solving training can be a useful therapeutic intervention for children's adjustment, with clinically important results sustained over time. The Problem-Solving Training Program was shown to be effective in addressing child behavioral problems and post-treatment cognitive and social challenges for children (Webster-Stratton et al., 2001).

Study by Ghalenoei and Kareshki (2017) demonstrated that problem-solving training based on Meichenbaum's approach enhances overall transition, including perspectives. Positive thinking, as described by Ehrenreich (2009), involves maintaining a positive mindset through constructive mental comments to alter perceived realities. Positive thinking can lead to improved decision-making and outcomes, as well as enhanced physical health by choosing positive emotions and attitudes (Cass, 2010).

social, mental, and educational aspects of adjustment. It is suggested that formative evaluation be conducted to assess the usefulness of Meichenbaum problem-solving training in promoting better social and job adjustments for students. Understanding and controlling the factors influencing student adjustment in dormitories can reveal the true effects of problem-solving training (Ghalenoei et al., 2017).

Additionally, regular physical activity has been recommended as a strategy to enhance social problem-solving skills, leading to improved mental health outcomes for university students. Successful social problem-solving skills can help reduce the risk of mental health problems, with physical activity having a positive impact on mental health (Sone et al., 2017). The World Health Organization (Year?) highlights the relationship between mental health and social adjustment, emphasizing the importance of an individual's ability to interact harmoniously with others and interpret emotional tensions and desires accurately (Qazvini, 2018). Research by Balck et al. (2019) supports the notion that problem-solving training has medium to strong effects on coping strategies, anxiety, pain, overall psychological distress, and general distress. In conclusion, social adjustment can be a key factor in cognitive guidance related to cognitive

LIMITATIONS, RECOMMENDATIONS, AND IMPLICATIONS

The present study focused on the effect of problem-solving training on social adjustment without considering the roles of social and cultural elements on the

variables. The study had several limitations, such as the lack of age-specific problem-solving training and reliance on self-report questionnaires with yes/no scale items that may be influenced by social desirability biases. The length of the questionnaire with 140 items could have caused fatigue and reduced careful reading and accurate responses.

To address these limitations, future research should consider age-specific problem-solving training in school classrooms and increase the number of participants. Appropriate questionnaires tailored for school-age students should be used, and the research should explore additional variables to investigate. It is recommended that schools integrate problem-solving training into their curriculum and consider making it a compulsory subject for students. The Ministry of Education could also introduce problem-solving training as part of the school curriculum. If not implemented at the national level, schools can collaborate with counsellors or private sectors to conduct training workshops to enhance students' social adjustment in healthier ways.

CONCLUSION

The study on problem-solving training and its impact on social adjustment among adolescents underscores the importance of proactive interventions in promoting positive youth development. By equipping adolescents with problem-solving skills, educators and practitioners can empower them to navigate the complexities of social interactions, cope with challenges effectively, and enhance their overall well-being. Moreover, the findings of this study highlight the potential for problem-solving training to serve as a valuable tool in addressing mental health issues and promoting resilience among adolescents. By fostering adaptive problem-solving abilities, schools and mental health professionals can help students build the coping mechanisms necessary for managing stress, regulating emotions, and making sound decisions in various life situations.

Furthermore, the implications of this research extend beyond individual well-being to encompass broader societal benefits. Adolescents who possess strong problem-solving skills and high levels of social adjustment are better equipped to contribute positively to their communities, engage in constructive relationships, and navigate the complexities of the modern world effectively. As we look towards the future, it is essential to continue exploring innovative approaches to promoting social adjustment and problem-solving skills among adolescents. By integrating evidence-based interventions into educational practices, mental health services, and community programs, we can create supportive environments that foster the growth and development of young individuals. In closing, the study emphasizes the importance of investing in programs that empower adolescents to develop essential life skills, enhance their social adjustment, and build resilience in the face of challenges. By prioritizing the well-being and growth of our youth through initiatives that promote problem-solving training, we can contribute to creating a more resilient, empathetic, and socially

connected generation capable of thriving in an ever-changing world.

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