

The Relationships between the Resilience Quotient of Undergraduate Students in the Educational Psychology and Guidance for Teachers Course and Their Achievement of the Course Learning Outcomes: A Qualitative Study

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Abstract

The purpose of this qualitative research was to examine the relationships between the resilience quotient (RQ) of undergraduate students in the Educational Psychology and Guidance for Teachers course and their achievement of the course learning outcomes. The sample comprised 38 second-year students from the Faculty of Education of Kasetsart University enrolled in the course during the second semester of the 2023 academic year. The data were collected through in-depth structured interviews consisting of seven open-ended questions and analyzed using a content analysis approach. It was found that the subjects employed various RO-related strategies to achieve the learning goals according to the course learning outcomes, including adopting relaxation techniques, engaging in enjoyable activities and hobbies, and sustaining self-management by prioritizing tasks and making decisions carefully. When faced with academic challenges, especially when the learning outcomes were not met, the subjects mindfully analyzed the problems, set goals for dealing with them, planned accordingly, and took corrective actions. They also sought guidance from instructors and used the feedback in the problem-solving process while maintaining resilience. From the subjects' perspectives, the skills in maintaining RQ during a scholastic journey involved accepting reality, reviewing and addressing problems, and continuously improving oneself. The present study underlines the importance of psychological well-being and effective guidance in students' academic success and personal development.

Keywords: Resilience quotient, RO, learning outcomes, Educational Psychology and Guidance for Teachers course

1. Introduction

1.1 Significance of the Problem

Resilience quotient (RQ) is a crucial attribute affecting all human activities. However, it is particularly important when an individual is confronted with adversity since it contributes to endurance against pressure and challenges, thereby facilitating self-improvement and psychological development (Bonanno, 2004). Thus, individuals with mental fortitude are determined to persist rather than surrender.

Research has established a close correlation between mental resilience and problem-solving and decision-making competencies. Furthermore, it exerts a beneficial influence on overall happiness and life satisfaction (Seligman & Csikszentmihalyi, 2000). Thus, its development should be fostered in daily life (Reivich & Shatté, 2002). One way to reach such a psychological state is by engaging in experiential learning and transcending limitations (Tugade & Fredrickson, 2004).

For students, it is necessary to build a robust foundation for mental resilience in their academic and everyday

lives for a variety of reasons. In contemporary higher education environments, students are often faced with heightened levels of stress and anxiety from multiple responsibilities or future life uncertainties. Thus, those with RQ will be able to navigate these challenges proficiently. Furthermore, mental resilience enables students to recognize the significance of failure and learn lessons from it. When facing setbacks, those with mental fortitude will see opportunities for self-improvement and for the development of skills for the future. Since RQ fosters positive relationships with peers, those with this attribute will also exhibit enthusiasm for embracing advice and exhibit the ability to resolve conflicts potentially arising during collaborative efforts. Finally, mental fortitude entails vision and commitment that empower students to tirelessly pursue their educational and professional goals.

1.2 Background of the Study

While RQ plays a vital role in enabling students to successfully carry out learning activities, the instructional management of a course requires the formulation of learning outcomes to guide them in fulfilling their academic goals.

The Educational Psychology and Guidance for Teachers course is a professional course for teachers with stipulated learning outcomes. The learning outcomes aid the students in setting their learning goals and comprehending what knowledge and skills they will gain from the course. Moreover, the learning outcomes enhance the efficiency of instructional design and assessment in measuring the students' knowledge and skills development toward and achievement of their learning goals, thereby adding to the overall value of the course. In addition, the learning outcomes promote transparency in the learning process since the students are made aware of the rationale behind the course and course activities. In short, learning outcomes ensure that the educational process continues in a structured manner with clear instructional goals in terms of student development and preparation for future life and professional challenges.

To better understand the aforementioned variables, it is worthwhile to examine the relationships between the RQ of undergraduate students in the Faculty of Education of Kasetsart University enrolled in the Educational Psychology and Guidance for Teachers course and their achievement of the course learning outcomes.

1.3 Hypothesis

The RQ of undergraduate students in the Faculty of Education of Kasetsart University enrolled in the Educational Psychology and Guidance for Teachers course affects their achievement of the course learning outcomes.

1.4 Research Objective

To examine the relationships between the RQ of undergraduate students in the Faculty of Education of Kasetsart University enrolled in the Educational Psychology and Guidance for Teachers course and their achievement of the course learning outcomes

2. Literature Review

2.1 Resilience Quotient (RQ)

Resilience quotient (RQ) refers to an individual's inherent emotional and mental abilities to cope with unexpected events, to remain flexible and adaptable, and to recover quickly after a crisis or to even turn a crisis into an opportunity (Division of Resilience Quotient Promotion and Development, 2020). This reflects the capacity to overcome life problems and obstacles with a strong RQ (Department of Mental Health, 2008) through mental, emotional, and behavioral adaptation to external and internal needs (American Psychological Association, 2024) in order to be able to live happily (Khwannimit, 2012).

The factors that primarily contribute to adaptability are an individual's view of and participation in the world, the availability and quality of social resources, and specific coping strategies. As psychological research shows, positive adaptability, i.e. RQ, otherwise known as mental resilience (APA Dictionary of Psychology, 2018), can be cultivated and fostered. According to the Department of Mental Health (2011), RQ is a unique personality trait enabling an individual to cope with an unexpected event in a resilient manner that comprises three important elements: endurance, faith, and wits. Endurance is the mental strength required to withstand pressure and manage stress effectively as well as to control emotions and respond to circumstances in a calm and positive manner. Faith refers to the belief that unfortunate events will eventually pass and the ability to lift one's spirits and appreciate others' words of encouragement. Wits involve dealing with problems and making decisions wisely while adapting effectively to new circumstances.

The manifestation of RQ may fall into one of the following five levels. Individuals with the basic level of RQ

exhibit the ability to maintain balance in terms of emotions and health as well as other basic attributes. Those with the second level of RQ are able to deal effectively with external factors and problems, while those possessing the third level of RQ can meaningfully interact with internal factors, thus being aware of their value and confidence, having an independent mind, and believing in their ability to overcome life obstacles. Those with the fourth level of RQ exhibit clear traits of mental resilience. Finally, individuals with the fifth level of RQ are able to turn unfortunate circumstances into opportunities, learn lessons from mistakes, and develop psychologically and materially from hardships in life.

2.2 Learning Outcomes

Learning outcomes refer to the skills, abilities, knowledge, values, and/or behaviors that can be achieved, measured, evaluated, and aligned and that students demonstrate as a result of completing a student-centered curriculum rather than a teacher-centered one (University of South Carolina, 2024). According to the national qualifications framework (NQF), learning outcomes mean the criteria indicating learning characteristics and learning outcomes arising from the learning process in line with the learning standards stipulated in the curriculum and from practical and professional experiences (Office of the Education Council, 2017). In this definition, learning outcomes comprise three dimensions: knowledge, skills, and application and responsibility. Knowledge encompasses the comprehension of facts, principles, theories, and practices related to their academic discipline. Skills are reflected by the ability to perform assigned tasks and/or solve problems through cognitive, logical, and creative thinking processes in a proficient manner pursuant to the qualification framework at each level. Application and responsibility involve the capacity acquired from cognitive processes and knowledge application, especially in social and professional development settings, including attributes related to communication, leadership, accountability, autonomy, and decision-making.

3. Research Methodology

The present qualitative study was conducted through in-depth structured interviews comprising seven open-ended questions. The research was divided into three stages.

3.1 Instrument Development and Validation

In this stage, the literature pertinent to the power of RQ and learning outcomes in educational psychology and guidance for teachers courses, including such documents as curriculum manuals and research articles, was reviewed. Based on the literature review, in-depth interview questions were formulated with the content centering around the power of RQ and the learning outcomes of the Educational Psychology and Guidance for Teachers course at the Faculty of Education of Kasetsart University. After that, the content validity of the interview questions was assessed by three experts: one in educational psychology, one in curriculum and instruction, and one in qualitative research. All the questions were rated 1.00 on the item-objective congruence (IOC) index (Rovinelli & Hambleton, 1977, cited in Wibulsri, 2013). Finally, the research instrument was piloted on three students enrolled in the Educational Psychology and Guidance for Teachers course in the academic year 2023 prior to its last revision and use in the data collection stage. This was to ensure the applicability of the instrument with other groups of subjects with similar demographic profiles. During the pilot study, the objective of the research and data collection process were explained before the questions were asked. Also, the subjects' reactions and concentration were observed. Subsequently, the interview protocol, questions, and timing were evaluated using a content analysis approach. The findings indicated that interview protocol and questions were appropriate.

3.2 Data Collection

The subjects were determined to be undergraduate students enrolled in the Educational Psychology and Guidance for Teachers course in the academic year 2023. From the six sections in the academic year, only the third section was selected using simple random sampling. All 38 students in the section expressed willingness to participate in the study.

In-depth semi-structured interviews were conducted by the researchers in line with the ethics principles for research in humans and in accordance with the interview protocols described by Buason (2015). This commenced with the seven open-ended interview questions previously formulated before proceeding with spontaneous inquiries unfolded during the sessions.

The data from the semi-structured interviews and the literature related to the power of RQ and learning outcomes in educational psychology and guidance for teachers courses were triangulated to ascertain the accuracy and reliability of the findings. A preliminary analysis of all the data demonstrated consistency across the data sources in line with standard procedures for the verification of qualitative research (Chantawanich, 2018).

3.3 Data Analysis

The data were qualitatively analyzed following the procedures below.

Inductive analysis was performed to interpret the findings and summarize the significant events experienced by the subjects.

Events were classified according to type, stage, people involved, setting, and timeframe for frequency counting and the establishment of correlation between variables (Chanthawanich, 2018).

4. Findings

The present qualitative study aimed to investigate the relationships between the resilience quotient (RQ) of 38 undergraduate students in the Educational Psychology and Guidance for Teachers course and their achievement of the course learning outcomes using a content analysis approach. The results were as follows.

In the Educational Psychology and Guidance for Teachers course, how did you strengthen your mental fortitude to fulfill the six course learning outcomes? To recapitulate, they were 1) being able to explain the principles and concepts in educational psychology, guidance psychology, and counseling psychology; 2) being able to analyze case studies involving educational psychology, classroom management, guidance psychology, and counseling psychology; 3) being able to apply knowledge from developmental psychology in guidance and counseling services; 4) being able to use information technology in counseling; 5) being able to demonstrate a counseling process; and 6) being able to design and organize guidance activities in schools.

The subjects fulfilled the six course learning outcomes by trying to avoid causes of stress and pursue hobbies and relaxing activities, such as participating in class, resting, listening to music, and hanging out. In addition, they viewed self-development, determination, and attention in class as catalysts for their achievement of the learning goals. They also attached importance to self-study and out-of-class learning as they believed these activities enhanced their comprehension and knowledge for not only academic and professional development. Furthermore, they thought highly of the awareness of goals in life and the ability to make choices wisely, which would positively reinforce their motivation to achieve their life goals.

When inquired further about other factors helping them better achieve the course learning outcomes, the subjects mentioned self-management, including prioritization and planning skills, the formulation of action plans to achieve goals in life, the ability to remain optimistic and living in the present moment, and persistence despite prevailing academic problems and obstacles.

One interesting finding was that in spite of their somewhat differing approaches to the fulfillment of the course learning outcomes, most of the subjects opted for RQ building strategies that embraced the significance of mental and psychological states. In other words, if the subjects were in a poor mental or psychological condition, feeling overly anxious or experiencing unmanageable stress, they would not be able to figure out any paths toward the learning goals. In contrast, if they could stay calm and keep their composure and seek help from those around them, such as their family members, advisors, and/or classmates, they would successfully overcome the obstacles preventing them from fulfilling the course learning outcomes.

When problems or obstacles arose that would cause the failure to achieve the six learning outcomes in the Educational Psychology and Guidance for Teachers course, how did you plan or what steps did you take to overcome the problems or obstacles?

When faced with problems or obstacles, the approaches the subjects took varied. Most of them consulted their family, advisors, friends and/or classmates, those more knowledgeable, and sometimes relevant resources. If the problems or obstacles were too severe, the subjects would take a break to relax. After a while, they would pull themselves together and figure out solutions to the problems or obstacles, expressing the opinions that there is light at the end of the tunnel and every cloud has a silver lining.

Another approach that the subjects took in response to problems or obstacles was being mindful. That is, they would calmly try to get a grip on the problems or obstacles as well as what caused them before setting a goal for dealing effectively with them. After successfully solving them, some of the subjects would reflect on the problems or obstacles to prevent them from recurring, evaluate the efficiency of their approaches, and formulate plans for future unfavorable events.

During the course, when certain topics, activities, and/or assessments caused emotional instability (e.g. feelings of resentment, worry, or conflict), how did you handle the situation and regain momentum?

All the subjects reported that they tackled the emotional instability from the instruction, class activities, and/or examinations and gathered momentum by resting and doing relaxing activities that they liked, such as watching

films, listening to music, playing games, reading, and hanging out. Furthermore, many considered emotional management important, thereby putting aside the causes of concern for a while prior to analyzing the factors contributing to emotional instability in order to be able to deal effectively with them later on.

Meanwhile, some of the subjects chose to live in the present moment and accept the fact that failure in class activities and/or assessments likely resulted from their own mistakes. These subjects would reflect on what had happened and consult the lecturer for corrective feedback. Importantly, they would encourage themselves and stay strong, not giving in to the obstacle and trying to regain their emotional stability. They also concurred that such a failure provided a meaningful lesson for personal development that would prepare them for future problems.

How do you encourage yourself to go on and overcome obstacles in life?

All the subjects gave themselves encouragement by doing comforting activities, such as chatting with their family members, friends, and classmates, resting, watching movies, listening to music, reading their favorite books, and eating the food that they liked. Many chose to let bygones be bygones, accepting what had taken place, that every problem had a way out, and everything would eventually pass. These subjects would also try to remain positive, find inspiration, and foster positive energy in themselves.

Other strategies that the subjects employed to encourage themselves were refraining from comparing themselves to others, promoting self-love, fueling the belief that they had done their best, building the confidence that they could overcome life's obstacles, and learning lessons from past mistakes. In short, the subjects tended to begin the problem-solving process by building self-encouragement prior to dealing with the problems, mostly by staying optimistic and focusing on finding solutions rather than being too emotionally involved.

You've probably encountered some problems in life. How have you managed to stay positive and overcome them?

Most of the subjects contemplated how to deal with life difficulties, accepting that they were inevitable while identifying their causes and figuring out solutions in a systematic manner. In the problem-solving process, they sought advice from their family members or sometimes those close to them to expose themselves to diverse perspectives and possible approaches. They also prioritized the problems and reinforced the belief that every problem had a solution and gave a meaningful lesson for life.

As regards their mental adaptation, most of the subjects closely monitored their psychological state as well as tried to be rational and forward-looking. With these traits, they had the willpower to overcome life obstacles and develop the resilience enabling them to move on from past problems, set realistic expectations for the outcomes of their own solutions, and be able to handle the dissatisfaction caused in the event that their solutions failed.

Some of the subjects also reported shifting their attitude to a more positive direction first before reflecting on themselves and the circumstances, managing their emotions to loosen up, and facing the problems again. They reasoned that the mental and emotional stability resulting from this would enable them to understand the issues more clearly and deal with them more effectively.

What approaches do you think should be taken in order to fulfill the learning outcomes of the Educational Psychology and Guidance for Teachers course?

While all the subjects mentioned advance preparation as the first stepping stone to success, they also attached importance to full participation in the class activities, punctual submission of all the assignments, regular revision of the lessons, self-learning outside the classroom, and performance in the summative assessments. Moreover, some of the subjects thought highly of adopting a positive attitude toward learning, applying what they learned in class to daily life activities to better understand the practical benefits of the course, and enthusiastically acquiring knowledge both in and out of class.

In the pursuit of the learning goals, many of the subjects deemed it important to identify one's strengths and weaknesses for personal development as well as to derive inspirations for learning as this would sustain self-development over the long run. Additionally, some subscribed to the significance of clear educational and career plans, effective time management, strong self-discipline, and careful prioritization of tasks.

A resilient person is able to recover speedily after failing. In your opinion, what are the three skills that contribute the most to resilience and why?

The top three mentioned by most of the subjects were the skills to face reality, reflect on problems, and apply lessons from failure for personal development. These subjects reasoned that failure was inevitable, so an individual who was courageous enough to confront adversity would be more likely to relentlessly reflect on its

cause, identify possible solutions, deal effectively with it and prevent it from recurring in the future, and eventually and ultimately learn lessons for personal and professional development.

In addition to the above, other skills that some of the subjects considered as important were those related to decision-making, self-awareness, adaptability, positive thinking, stress and emotional management, interpersonal relationships. For instance, the subjects believed that those who were keenly aware of themselves mentally and behaviorally would be able to make better and timelier decisions, those with positive thinking would be likely to recover more quickly after failing, and those with strong interpersonal skills would receive the support necessary for them to regain momentum more readily.

5. Discussion

The present study demonstrated a clear correlation between the resilience quotient (RQ) of undergraduate students in the Educational Psychology and Guidance for Teachers course and their achievement of the course learning outcomes. What emerged from the findings were as follows.

5.1 Stress Management Strategies and Learning Outcomes

As the results showed, the subjects employed a variety of strategies to manage stress, such as trying to keep stress at bay, unwind, and restore happiness and peace. This is in agreement with Lazarus and Folkman (1984), which argues that effective stress management strategies have a positive effect on mental health and learning outcomes as they help students to better adapt to varied learning situations, maintain stress at an appropriate level, deal more effectively with educational challenges, be more mentally prepared for instructional activities, and ultimately fulfill learning goals. Similarly, Pekrun discovered significant relationships between positive emotions and motivations and learning achievements, while Bandura (1986) emphasizes the significance of psychological factors in learning processes. Nevertheless, it is essential to point out the need to consider individual differences in stress management. With regards to this, Carver and Connor-Smith (2010) highlights the strong relationships between personality traits, circumstances, and stress management strategies.

5.2 Self-management and Academic Planning

The findings showed that the subjects realized the importance of self-management, prioritization, and careful academic planning. This corroborates Zimmerman's (2000) self-regulated learning theory, which underscores the value of planning, self-regulation, and evaluation in learning processes. It is evident that not only do these skills enable students to achieve the target learning outcomes, but they also play a vital part in strengthening mental fortitude and the ability to take control of one's life. That is, the students who can effectively regulate themselves are likely to be able to steer their own learning processes – a powerful factor determining educational success, as demonstrated in Pintrich's research on the correlation between self-regulation and learning achievements. Furthermore, prioritization and planning skills indicate effective time management instrumental to self-regulated learning. With regards to this, Wolters et al. (2017) reported that time management was an important learning strategy that would enable students not only to achieve their learning goals but also to sustain good mental health through the ability to regulate and manage their life. This is in line with Ryan and Deci's (2000) self-determination theory, which ascribes mental well-being to a sense of self-control. Nevertheless, it is worth mentioning that the roles of individual needs and differences in self-management and academic planning should not be overlooked due to the complex interplay between these factors and learning processes (Winne, 2008).

5.3 Mental Resilience and Problem-solving Processes

The findings demonstrated that the subjects were able to solve problems in a systematic manner, initially staying calm and analyzing the causes and formulating the target goals until successfully overcoming them – a process congruent with the creative problem-solving approach postulated by Osborn-Parnes (cited in Isaksen & Treffinger, 2004). Not only does the ability to solve problems creatively contribute directly and significantly to learning achievements, but it also reinforces confidence and mental resilience aiding students in confronting challenges and overcoming obstacles. The significance of critical thinking and problem-solving skills is also highlighted in Heppner et al. (2004), which established an association between adaptability and good mental health and the ability to solve problems effectively. Similar theories include Bandura's (1997) self-efficacy, which argues that successful problem-solving experience will likely enhance confidence and future problem-solving skills, and Sternberg's (2006) practical intelligence, which proposes that the ability to systematically solve problems reflects intellectual development, which is integral to academic and professional success. However, individual differences in problem-solving skills development should also be taken into careful consideration, as suggested by D'Zurilla and Nezu (2010).

5.4 Handling Failure and Lessons Learned

According to the results, the subjects exhibited the ability to creatively handle failure by composing themselves, reviewing what they had done wrongly, and identifying ways to deal with it. This is supported by Dweck's (2006) conception of growth mindset, which regards failure as an opportunity for learning and development. Thus, the ability to view failure positively will promote learning achievements while enhancing RQ. In the same vein, Yeager and Dweck (2012) reported in their study that individuals possessing a growth mindset are likely to take advantage of failure and challenges rather than being hindered by them and to demonstrate better learning achievements as a result of their mental resilience. Similarly, Masten (2001) proposes that mental fortitude, or the ability to adapt and recover from failure or difficulties, is an important factor contributing to a healthy mind, creative problem-solving skills, and long-term success.

With regards to this, Kolb (1984) proposes experiential learning, emphasizing that higher-level learning results from reflection on and analysis of real experience and failure. Hence, individuals who consistently learn experientially will also develop life-long learning skills. Similar conceptions are described in Bandura's (1997) self-efficacy theory, which associates self-efficacy for future challenges, motivations, and learning achievements with the ability to handle failure effectively, and Edmondson's (1999) psychological safety theory, which postulates that an environment conducive to learning from failure will promote the courage for learning and personal development. What remains to be investigated is the effects of individual differences on the attitudes toward and the ability to handle failure, as illustrated in Haimovitz and Dweck's study (2016) on the relationships between social, cultural, and individual factors and mindset development.

5.5 Development of the Skills Necessary for Fostering RQ

The skills that most of the subjects considered as instrumental in building and reinforcing RQ were those related to acceptance of reality, reflection on problems, and self-development. As regards acceptance of reality, the findings are consistent with Seligman's (2011) conception of positive psychology, which emphasizes the importance of building positive personality and psychological traits that enhance mental health and learning achievements. Also lending support to the present study is Hayes et al.'s (2006) acceptance and commitment theory, which underlines the role of acceptance of positive and negative experiences in the development of mental fortitude and reduction of stress and anxiety – fundamental factors affecting mental well-being and learning outcomes.

With regards to the role of reflection on problems and self-development, the present results agree with Mezirow (1991), which proposes that critical reflection serves as a vital process in experiential learning. Accordingly, individuals who effectively reflect on and analyze problems will likely possess the critical thinking and problem-solving skills necessary for thriving and developing personally and professionally. The findings are also congruent with Dweck's (2006) conception of growth mindset, which stresses the significance of perseverance and learning in the development of abilities and positive attributes. According to Dweck, individuals with a growth mindset are likely to have stronger motivations for learning and overcoming life obstacles, thereby demonstrating better mental health and learning achievements.

Overall, the findings shed light on the interplay between several psychological, mental, and emotional factors affecting individuals' mental resilience and tenacity. As Ryff and Singer (2008) asserts, psychological well-being is constituted by various dimensions encompassing not only acceptance of reality and reflection on life problems but also self-acceptance, positive relationships with others, having clear goals in life, and chances for personal growth and development. All this can be promoted through social and emotional skills development (Durlak et al., 2011) to enhance academic success and mental health. Nevertheless, it is essential to also account for individual needs and differences since the process of self-regulated learning is complex and varies from person to person (Zimmerman, 2002). Other factors that should also be taken into consideration are social and cultural influences due to their significant effects on self-awareness and mental development (Markus & Kitayama, 1991).

6. Conclusions

The present findings indicate a strong correlation between RQ, evidenced by psychological development as well as self-management and problem-solving skills, and the achievement of course learning outcomes, at least in the context of educational psychology courses. One significant implication of the research results for curriculum development and instructional management in educational psychology and guidance for teachers courses is that emphasis should be placed on the development of RQ alongside academic knowledge to enable students to effectively cope with challenges in the teaching profession in the future.

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Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Obtained.

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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