

Personal Empowerment among Graduate Students

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1. Chapter 1

1.1. Statement of the Problem

Personal efficacy, psychological differentiation, and an adaptive personality are fundamental concepts in psychology that influence an individual's personal and social performance. To enhance efficiency, human skills, creativity, innovation, and renewal among graduate students, learners should be capable of acquiring knowledge in a distinctive manner. They should be confident, well-adjusted, knowledgeable, and able to make appropriate decisions while maintaining self-awareness and discernment about themselves and the world around them.

Thus, developing personal efficacy requires cognitive strength. Students need to exert additional effort and focus on the activities they engage in to achieve a high level of ability in facing challenges and pressures (Abed, 2013, p. 128). A lack of personal efficacy leads to a decreased ability to be fully engaged in academic life and weakens their capacity to perform tasks and academic activities effectively.

In this context, modern psychological studies and research have focused on examining students' ability and competence in higher education institutions, particularly among graduate students. The concept of personal efficacy and competence emerged from Bandura's research, in which he considered it one of the key concepts in social cognitive theory. This theory is based on the principle of continuous and reciprocal interaction among behaviour, cognition, and environmental influences.

According to this perspective, beliefs about efficacy and competence serve as a cognitive mediator centred on an individual's convictions and judgements about their abilities and potential. These beliefs, in turn, guide an individual's behaviour toward achieving their desired goals, determining their level of ambition, effort, perseverance, and flexibility in dealing with difficult, stressful, and complex situations. They also play a role in overcoming obstacles and resisting failure (Abd Al-Salih & Al-Nayal, 2018).

Since efficacy is an expression of one's ability to achieve goals and carry out desired actions, research in this field often focuses on personal efficacy as a force that enables individuals to determine their own destiny, shape events, and participate in decision-making concerning their present and future.

According to Deci and Ryan's theory, personal efficacy is a manifestation of competence. Its essential components include physical and mental fitness, openness to the world, the ability to face external challenges, and resilience in the face of pressures and crises (Deci & Ryan, 2017, p. 18).

1.12. Importance of the Study

The significance of this research stems from its focus on an essential segment of the academic community: graduate students. They represent the foundation and backbone of the nation, as well as the leaders of its future. This group is responsible for shaping the future of society and plays a pivotal role in advancing it on the global stage. They bear the responsibility of leading scientific and intellectual progress (Abdwan, 2011, p. 6).

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Graduate students hold great importance in society at various levels — professionally, academically, and personally. Through postgraduate studies, students develop intellectual independence and the ability to think critically in research and analysis. They learn how to generate new ideas and address problems innovatively. Additionally, postgraduate studies help students build professional networks through interactions with colleagues, professors, and experts in their field. These relationships contribute to expanding their knowledge, sharing expertise, and participating in solving societal problems, which can have a profound impact on their communities.

For many students, graduate studies are crucial in achieving personal goals, whether in pursuit of academic aspirations or career advancement. In short, postgraduate education is not merely a means to deepen knowledge in a specific field; it also opens new professional and personal horizons, enhancing skills and capabilities that can be highly beneficial.

According to Self-Determination Theory, individuals engage in tasks they find interesting and derive personal satisfaction from completing them. They are willing to undertake these tasks even without external rewards or incentives. The theory suggests that individuals recognise the value of an action or task and perceive it as personally meaningful, which motivates them to perform such tasks with awareness and enthusiasm.

Furthermore, the theory highlights that human beings are naturally active and inclined toward learning new tasks, seeking challenges, mastering them, and integrating new experiences with prior knowledge. This leads to greater personal differentiation and enhanced individual performance (Ryan et al., 2016).

1.3. Objectives of the Study

The current study aims to examine personal efficacy among graduate students.

1.4. Limits of the Study

This study is limited to graduate students at the University of Baghdad, including both male and female students, from scientific and humanities disciplines during the 2023–2024 academic year.

1.5. Definition of Terms

1.5.1 Personal Agency

Definition by Deci & Ryan (2021): Personal agency is the belief in one's competence to shape pathways or strategies for achieving self-selected goals, driven by internal personal motivation (Deci & Ryan, 2021).

Theoretical Definition: This research adopts the definition provided by Deci and Ryan (2021) as the theoretical framework for the concept of personal agency. It serves as the basis for developing the personal agency scale and interpreting the research findings.

Operational Definition: The operational definition of personal agency in this study refers to the total score obtained by the respondent when answering the items on the personal agency scale developed for this research.

2. Chapter Two: Theoretical Framework and Previous Studies

2.1. Self-Determination Theory (Ryan & Deci, 2000)

Self-Determination Theory (SDT) was initially introduced by Edward Deci and later developed in collaboration with Richard Ryan. They first proposed these ideas in 1985 in their book *Self-Determination and Intrinsic Motivation in Human Behavior*. The term self-determination refers to an individual's belief in their ability to make free and autonomous choices based on internal motivation, guiding the direction and content of their personal life. This is expressed through self-directed and goal-oriented behaviour driven by internal motivation and personal agency.

Personal agency involves the ability to set and pursue self-selected goals with internal motivation, as well as the capacity for positive non-conformity (adaptive independence) and resistance to external constraints that may divert individuals from their chosen objectives.

This theory suggests that people can determine their own destinies when three fundamental psychological needs are met:

1. **Competence:** the need to master tasks and acquire skills.
2. **Relatedness:** the need to form meaningful relationships and experience a sense of belonging.
3. **Autonomy:** the need for self-direction and independent decision-making.

When these needs are fulfilled, individuals engage in activities that are intrinsically motivated by curiosity and passion, rather than external rewards. This intrinsic motivation enhances their ability to achieve goals, develop essential skills, and experience happiness and satisfaction.

Furthermore, the theory emphasises that people naturally seek challenges, mastery, and integration of new experiences with prior knowledge. The sense of competence, relatedness, and autonomy enhances self-efficacy, leading to greater self-control, motivation, and overall well-being. This, in turn, improves performance in various aspects of life and helps individuals build skills that contribute to personal fulfilment and happiness (Kansas University Center, 2021, p. 20).

2.2. Self-Determination Theory: Deci & Ryan (2017)

In recent years, Self-Determination Theory (SDT) has become highly influential in understanding the motivational foundations of personality. It provides a comprehensive framework for human motivation, personal development, social behaviour, and the relationship between basic psychological needs and an individual's ability to face challenges, seek autonomy, and achieve a high quality of life (Deci & Ryan, 2017, p. 1).

Unlike many traditional and contemporary theories of human motivation — which often treat motivation as a single-dimensional concept, assuming that individuals simply have more or less motivation — SDT emphasises a spectrum of motivations. This spectrum ranges from autonomous motivation (self-driven) to controlled motivation (externally driven) and is used to predict optimal performance, engagement, vitality, and psychological well-being.

A key distinction in SDT is between autonomous motivation and controlled motivation:

- **Autonomous motivation** refers to acting with a full sense of volition, willingness, and choice.
- **Controlled motivation** involves acting under external pressure, whether through promised rewards, fear of punishment, social obligations, or external constraints.

Research has shown that when individuals are self-motivated — either through intrinsic motivation or well-integrated internalized extrinsic motivation — they experience greater interest, vitality, and confidence, leading to higher performance, creativity, persistence, and the achievement of self-directed goals (Ryan & Deci, 2017, pp. 13–14).

2.3. Intrinsic Motivation as the Basis of Self-Determination

SDT also highlights that intrinsic motivation is the primary model of self-determination, because people naturally engage in activities they find interesting and fulfilling, deriving personal satisfaction and internal rewards from completing tasks. They are willing to engage in these activities even without external rewards or recognition (Deci & Ryan, 2019, p. 5).

Moreover, SDT explains that when individuals personally understand and internalise the value of an action, they willingly and consciously engage in it, recognising its importance to their personal growth. According to SDT, humans are naturally active and driven to seek challenges, mastery, and the integration of new experiences with prior knowledge, which enhances their personal competence and differentiation (Ryan et al., 2016, p. 8).

2.4. Basic Psychological Needs in Self-Determination Theory

As a theory of human motivation, SDT defines motivation as the force that drives individuals to take action. It proposes that human behaviour is guided by the fulfilment of three fundamental psychological needs:

- a) **Competence:**
 - The need to feel effective and capable in one's actions.
 - A desire to influence events and have an impact on life's circumstances.

b) Autonomy:

- The need to self-direct one's life, make independent choices, and determine one's own path.
- Aligns with the concept of self-goal-directed behaviour, enhancing an individual's sense of control over their actions.

c) Relatedness:

- The need for connection, interaction, and positive relationships with others.
- Involves acceptance, care, and mutual respect in social relationships (Schulte, 2020, p. 25).

3. Chapter Three: Research Methodology and Procedures**3.1. Research Methodology**

The current study follows a descriptive analytical approach, as it aligns with the research objectives by describing and analysing the phenomenon under investigation. This approach aims to interpret and explain the research variables and determine their relationships, while also identifying the study population, sample selection, data collection methods, and statistical tools used in analysis. The descriptive approach enables the researcher to analyse and interpret the data systematically, providing an in-depth understanding of the research problem.

In this study, the descriptive method is applied through a structured analytical process to achieve the research objectives. The methodology includes defining the research variables, relationships, and influencing factors, as well as identifying patterns and trends that contribute to a comprehensive understanding of the topic.

According to Widiyanto (1999, p. 18), a descriptive analytical approach is used to examine and interpret data collected from the research sample. This approach helps in identifying key findings, drawing conclusions, and making recommendations based on the observed patterns and statistical analysis.

3.2. Research Population

The research population consists of graduate students enrolled in the academic year 2023–2024 at various colleges of the University of Baghdad. The total population is categorised based on gender and academic specialisation. The total number of students is 9,482, comprising 5,863 male students (62%) and 3,619 female students (38%). Based on specialisation, scientific disciplines account for 3,836 students (40%) and humanities and social sciences for 5,646 students (60%). Table 1 presents the distribution of the research population by gender and academic specialisation.

Table 1: Research Population by Gender and Specialisation

%	College	MA Male	MA Female	MA Total	PhD Male	PhD Female	PhD Total	Grand Total
Scientific Colleges								
2%	Medical	44	82	126	29	23	52	178
3%	Veterinary Medicine	84	92	176	87	65	152	328
5%	Dentistry	156	210	366	45	71	116	482
4%	Agricultural Sciences	81	127	208	107	87	194	402
7%	Engineering	187	220	407	108	99	207	614
1%	Al-Khwarizmi Engineering	26	44	70	0	0	0	70
4%	Science for Women	0	257	257	0	75	75	332
4%	Fine Arts	124	135	259	94	69	163	422

9%	Sciences	173	353	526	111	225	336	862
3%	Nursing	82	93	175	70	47	117	292
2%	Pharmacy	41	64	105	36	48	84	189
1%	Physical Education	30	14	44	63	12	75	119
2%	Physical Education for Women	0	63	63	0	83	83	146
4%	Ibn Al-Haytham College of Education	75	144	219	80	94	174	393
4%	Business Administration & Economics	120	114	234	96	47	143	377
3%	Higher Institute for Accounting & Financial Studies	31	42	73	141	83	224	297
2%	Institute of Genetic Engineering	21	40	61	44	69	113	174
1%	Institute of Laser	19	48	67	19	19	38	105
1%	Center for Urban Planning	34	47	81	0	0	0	81
62%	Scientific Total	1,328	2,189	3,517	1,130	1,216	2,346	5,863
Humanities Colleges								
9%	Arts	165	230	395	182	218	400	837
4%	Mass Communication	83	87	170	87	54	141	361
9%	Ibn Rushd College of Education	212	334	546	146	145	291	884
4%	Islamic Sciences	62	113	175	104	95	199	374
1%	Political Science	25	46	71	38	24	62	133
3%	Law	58	144	202	52	47	99	301
1%	Languages	25	61	86	0	0	0	86
7%	Education for Women	0	523	523	0	120	120	643
38%	Humanities Total	630	1,538	2,168	609	703	1,312	3,619
100%	Grand Total	1,958	3,727	5,685	1,739	1,919	3,658	9,482

Source: Directorate of Student Affairs and Registration, University of Baghdad, reference no. 3058 (2024/2025).

3.3. Research Sample

A sample is a subset of the population in which the phenomenon under study is examined and from which data are gathered, allowing the results to be generalised to the entire population (Al-Najjar, 2010, p. 149). The sample was selected using stratified random sampling, whereby the study population was divided into strata and the sample was drawn from each stratum to ensure proportional representation across different colleges and specialisations. The sample selection was based on pre-specified criteria and drawn from different colleges during the 2024–2025 academic year.

Table 2: Research Sample Distribution by Gender and Specialisation

%	College	MA Female	MA Male	PhD Female	PhD Male	Total	Specialisation
Scientific							
58	Engineering	13	9	21	15	58	Scientific
81	Sciences	20	13	29	19	81	
38	Agricultural Sciences	9	6	14	9	38	
37	Ibn Al-Haytham College of Education	9	6	13	9	37	
34	Business Administration & Economics	8	6	12	8	34	
248	Scientific Sub-total	59	40	89	60	248	
Humanities							
50	Arts	12	8	18	12	50	Humanities
53	Ibn Rushd College of Education	13	8	19	13	53	
22	Islamic Sciences	5	4	8	5	22	
18	Law	4	3	7	4	18	
9	Political Science	2	2	3	2	9	
152	Humanities Sub-total	36	25	55	36	152	
400	Grand Total	95	65	144	96	400	

3.4. Research Instruments

The instruments for conducting the research aim to collect data and ensure that the results are valid and reliable. The method of selecting these instruments is critical to maintaining accuracy and eliminating bias. The researcher should clarify the methods and procedures used in data collection, including participant selection, information gathering, and ensuring consistency.

3.4.1 Personal Agency Scale

The Personal Agency Scale is designed to measure the level of personal agency and the ability to manage challenges and achieve personal and professional goals. The items on the scale focus on key attributes:

1. Willingness to take initiative
2. The ability to plan and organise effectively
3. Ability to handle challenges and overcome obstacles
4. Willingness to take responsibility and make decisions

The scale follows a Likert-type format with responses ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

3.4.2 Measurement Domains

The scale assesses personal agency across three domains:

Domain 1 — Efficacy: The ability to achieve goals effectively and to work efficiently in various situations.

Domain 2 — Independence: The ability to perform tasks independently and make decisions without external influence.

Domain 3 — Interconnectedness: The ability to work with others and understand the connections between various elements of a task or project.

3.4.3 Scale Item Formulation and Response Gradation

The items were formulated using a Likert scale format, typically used to measure attitudes or behaviours on a five-point scale. The gradation allows respondents to rate their agreement with each item, providing valuable insights into personal agency levels.

The scale items were formulated to ensure accurate measurement of the construct and are structured logically to fit the intended purpose of the study. The following criteria were considered in developing the items:

1. **Clarity:** ensuring the item is clearly worded and easily understood.
2. **Relevance:** ensuring the item accurately reflects the intended construct.
3. **Measurability:** ensuring the item can be effectively measured using a Likert scale.

3.4.4 Face Validity

The face validity of the scale refers to the degree to which it appears to measure what it is intended to measure. The items were assessed for clarity and relevance to ensure alignment with the purpose of the research. Items are considered valid if they correspond well with the theoretical framework of personal agency, efficacy, and independence. The scale was reviewed by a panel of 20 expert judges (referred to as "arbitrators" in Table 3 below).

Table 3: Expert Opinions on the Validity of Personal Agency Scale Items

Sig. Level (0.05)	Tabulated χ^2	Calculated χ^2	Percentage	Disagree	Agree	Item No.	Domain	
Sig.	3.84	20	100%	0	20	1, 4, 5	Efficacy	
Sig.	3.84	16.2	95%	1	19	2, 3, 7		
Sig.	3.84	12.8	90%	2	18	6, 8		
Sig.	3.84	20	100%	0	20	2, 5	Independence	
Sig.	3.84	16.2	95%	1	19	6, 8		
Sig.	3.84	12.8	90%	2	18	1, 4		
Sig.	3.84	9.8	85%	3	17	3, 7		
Sig.	3.84	20	100%	0	20	1, 7	Interconnectedness	
Sig.	3.84	16.2	95%	1	19	2, 3		
Sig.	3.84	12.8	90%	2	18	5, 8		
Sig.	3.84	9.8	85%	3	17	4, 6		

3.4.5 Statistical Analysis of Scale Items

The statistical analysis of the scale aimed to assess the reliability and effectiveness of the items. Statistical tools were applied to ensure the validity and internal consistency of the scale. Each item was tested for its ability to measure the intended construct, and a review of the data was conducted to refine the scale.

A stratified random sample of 400 students (200 males and 200 females) was selected for the statistical analysis. According to Anastasi (1988), a suitable sample size for item analysis, particularly when calculating the discriminating power of scale items, should be no fewer than 400 participants. The personal agency scale was administered to students in their classrooms during lecture hours, following approvals from department heads and faculty members.

Table 4 (originally Table 5): Sample for Statistical Analysis

Seq.	Specialisation	College	Male	Female	Total
1	Scientific	Engineering	28	28	56
2		Veterinary Medicine	28	28	56
3		Agricultural Engineering & Sciences	30	30	60
4	Humanities	Mixed Sciences College	28	28	56
5		Media	28	28	56
6		Political Science	28	28	56
7		Arts	30	30	60
		Total	200	200	400

3.4.6 Discriminating Power of Scale Items

The discriminating power of items (also referred to as the "discrimination index") indicates the ability of each item to distinguish between different levels of ability or performance among respondents. To calculate the discriminating power of the personal agency scale items, the following procedure was applied:

1. Scale items were assessed for their ability to identify differences in scores among students with varying levels of performance.
2. Items with high discrimination power were retained, while those with low discrimination power were either revised or removed.

The discriminating power of items is a critical component for ensuring the reliability and validity of the scale in accurately measuring personal agency.

3.4.7 The Two Extreme Groups

To calculate the discriminating power of scale items, the researcher followed these steps:

- **Defining the scale:** Scale items were clearly outlined and criteria for evaluating their effectiveness were established.
- **Selecting the appropriate sample:** The researcher ensured the sample was appropriate for the study's objectives.

- **Assessing discriminating power:** Items were assessed based on their ability to differentiate between participants with varying levels of personal agency. According to Kelly (1939), the discrimination index helps identify whether items distinguish between high and low performers.
- **Performing statistical analysis:** An independent-samples t-test was performed to assess the statistical significance of differences between the upper and lower scoring groups. The results demonstrated that the scale items possessed high discriminating power.

Table 5 (originally Table 6): Discriminating Power of Personal Agency Scale Items

Item No.	Calculated t	Upper Group Mean	Upper SD	Lower Group Mean	Lower SD	Sig. Level (0.05)
1	10.540	4.241	1.143	2.583	1.201	Sig.
2	10.714	4.796	0.652	3.130	1.504	Sig.
3	15.219	3.917	0.918	2.296	0.645	Sig.
4	9.521	4.500	1.106	2.657	1.714	Sig.
5	11.068	4.139	1.172	2.380	1.197	Sig.
6	11.229	3.889	0.616	2.722	0.905	Sig.
7	9.298	4.250	0.799	2.917	1.283	Sig.
8	18.885	3.972	0.814	2.204	0.652	Sig.
9	8.168	3.907	0.768	2.870	1.033	Sig.
10	12.088	4.019	1.102	2.269	1.056	Sig.
11	12.611	4.620	0.828	2.889	1.187	Sig.
12	11.322	4.574	0.834	2.722	1.509	Sig.
13	12.699	4.222	1.130	2.130	1.319	Sig.
14	11.880	4.204	0.840	2.500	1.257	Sig.
15	10.829	3.954	1.263	2.167	1.196	Sig.
16	17.402	4.481	0.902	2.287	0.977	Sig.
17	14.533	4.176	1.101	2.037	1.093	Sig.
18	9.730	4.176	1.331	2.463	1.293	Sig.
19	10.034	3.046	0.880	1.815	0.949	Sig.
20	15.237	3.796	1.002	1.824	0.926	Sig.
21	14.025	4.250	0.685	2.454	1.163	Sig.
22	10.873	4.333	1.111	2.565	1.306	Sig.
23	6.947	4.315	1.316	2.917	1.664	Sig.
24	15.530	4.454	0.999	2.065	1.277	Sig.

Table 5 presents the discriminating power of the personal agency scale items by comparing the upper group (high scorers) and the lower group (low scorers) in terms of mean scores and standard deviations. The calculated t-values were all statistically significant at the 0.05 level, confirming that all 24 items effectively differentiate between participants with high and low levels of personal agency.

3.4.8 Statistical Indicators of the Personal Agency Scale

Table 6 (originally Table 7): Statistical Indicators of the Personal Agency Scale

Statistical Indicator	Value
Mean	80.79
Median	82.00
Mode	82
Standard Deviation	16.74
Variance	280.34
Skewness	-0.398
Kurtosis	-0.436
Minimum	34
Maximum	117
Range	83

The statistical indicators presented in Table 6 show that the mean, median, and mode are closely aligned, indicating an approximately normal distribution. The skewness and kurtosis values suggest a slightly negatively skewed distribution; however, overall, the scale demonstrates statistical stability and is suitable for use in subsequent analysis.

3.5. Level of Personal Agency among Graduate Students

Objective: To identify the level of personal agency among graduate students.

To achieve this objective, the Personal Agency Scale (24 items) was administered to a sample of 400 students.

Findings:

- The mean score of personal agency was 80.79.
- The standard deviation was 16.74.
- The median score was 82.00.

Using a one-sample t-test, the results showed a statistically significant difference between the obtained mean and the hypothetical mean, with a computed t-value of 10.503, which exceeds the critical t-value of 1.96 at the 0.05 significance level. This indicates that the sample exhibits a significantly above-average level of personal agency.

Table 7 (originally Table 8): One-Sample t-Test for the Difference between the Obtained Mean and the Hypothetical Mean of the Personal Agency Scale

Scale	N	Arithmetic Mean	Std. Deviation	Hypothetical Mean	Calculated t	Tabulated t	Sig. (0.05)
Personal Agency	400	80.79	16.74	72	10.503	1.96	Sig.

The results indicate that graduate students possess a higher-than-average level of personal agency based on the study's hypothetical mean benchmark. This finding can be explained through Self-Determination Theory (Deci & Ryan, 2000), according to which personal agency emerges from students' ability to overcome academic challenges through active engagement in learning, sustained focus, emotional involvement, and enjoyment of their tasks.

Furthermore, the alignment between their academic studies and their high cognitive abilities enables them to develop a wide range of skills from diverse courses and educational experiences. Advanced-level students tend to perceive their academic materials as challenging yet engaging, requiring their full concentration and active participation, which in turn reinforces their personal agency.

Factors Influencing Personal Agency

- Academic freedom
- Opportunities for self-expression
- Social interactions and networking through cultural conferences and seminars
- Facing challenges and overcoming obstacles

According to Deci and Ryan (2000, p. 29), personal agency in students is defined as their ability to engage in activities, make decisions aligned with their values and goals, and persistently work towards achieving them. Individuals with high personal agency can define their objectives, remain resilient, and overcome difficulties consistently.

4. Recommendations

- Educational institutions should adopt teaching methods that enhance students' personal agency by focusing on critical thinking, problem-solving, creativity, and self-expression.
- Academic curricula should provide students with autonomy, allowing them to explore various subjects, develop independence, and connect with their surroundings in a meaningful way.

5. Suggestions for Future Research

- Conduct further studies on additional psychological factors influencing personal agency, such as:
- Emotional intelligence
- Intrinsic motivation
- Decision-making skills
- Cognitive flexibility

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