



Research Article

Self-Awareness and Psychological Empowerment as Predictors of Future Thinking among Individuals with Visual Impairment

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Abstract

The study aimed to determine the levels of both (Self.Awa.) and (Psy. Emp.) among individuals with (Vi. Imp.), as well as to examine whether there are statistically significant differences in (F. Th.) attributable to gender (male/female) and grade level (third, fourth, fifth, sixth). The study also sought to investigate the extent to which (F. Th.) can be predicted by self-awareness and (Psy. Emp.) in this population. The descriptive method was employed, and the sample consisted of (50) students with a mean age of (172.30) months and a standard deviation of (11.23) months. The study utilized three instruments developed by the researcher: a (Self.Awa.) Scale, a (Psy. Emp.) Scale, and a (F. Th.) Scale. The findings revealed moderate levels of both self-awareness and (Psy. Emp.) among individuals with (Vi. Imp.). Additionally, no statistically significant differences at the (0.05) level were found in (F. Th.) based on gender or grade level. The results also indicated that (Self.Awa.) and (Psy. Emp.) are weak predictors of (F. Th.) among individuals with (Vi. Imp.). They contribute 4.1% to predicting (F. Th.) among the visually impaired. The F-value for determining the possibility of predicting (F. Th.) through (Self.Awa.) with (Psy. Emp.) among the visually impaired reached (0.789), which is a statistically insignificant value at the 0.05 level. This indicates that the possibility of (F. Th.) through self-awareness with (Psy. Emp.) among the visually impaired is weak. The partial correlation coefficient reached (0.202), and the coefficient of determination reached 0.041, which is the value of r^2 for the explanatory coefficient associated with the entry of variables into the regression equation.

Keywords

Self-awareness, Psychological Empowerment, Future Thinking, Individuals with Visual Impairment

1. Introduction

Self-awareness is considered one of the foundational constructs in human psychology. It represents the starting point

from which individuals understand themselves, their behaviors, emotions, and interactions with others. As a cognitive–

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emotional process, self-awareness enables individuals to recognize their strengths and weaknesses, understand their internal motives, and regulate their responses across life situations. It is also regarded as one of the essential pillars of emotional intelligence, contributing to the development of a balanced personality capable of adapting to life pressures, making well-reasoned decisions, and achieving psychological and social growth.

Individuals with (Vi. Imps.) often experience difficulties related to (F. Th.) due to limitations in linguistic and social communication. (F. Th.) is a higher-order cognitive skill that enables individuals to plan their lives and make decisions based on a clear vision of what lies ahead. Studies have shown that visually impaired students encounter challenges in forming balanced future-oriented thinking and planning [31].

(F. Th.) has become a fundamental requirement in the age of information revolution. It involves conscious planning for the future through an analysis of present issues and anticipation of possible future developments, while generating multiple alternatives and constructing potential scenarios for future outcomes. The core purpose of (F. Th.) is to build feasible and anticipated mental images of the future and develop innovative, unconventional solutions [28]. (F. Th.) views the future as an open space for change—an evolving, dynamic process that rejects rigidity and constraints and motivates individuals to transform existing societal conditions. As such, it is considered one of the modern approaches to understanding problems and contributes effectively to strategic planning [24].

From this perspective, (F. Th.) allows learners to examine potential future scenarios, analyze anticipated conditions, understand their causes, and evaluate their consequences. Individuals' perceptions of the future significantly influence their current decisions—either to adapt to what may occur or to translate those perceptions into a concrete reality [23].

(Self.Awa.) represents a crucial foundation of (F. Th.). The more aware individuals are of themselves, the more capable they become of understanding others and perceiving reality objectively. This enhanced awareness positively influences their ability to think logically and forecast long-term possibilities. Self-awareness enables individuals to evaluate their behaviors and make thoughtful, mature decisions. In contrast, low self-awareness leads to limited future vision and weak capacity for imagining future situations. Thus, developing self-awareness is a fundamental step toward building balanced, future-oriented thinking that equips individuals to face challenges with insight and clarity [52].

In this context, Mansour (2022) [34] emphasized that self-awareness plays a vital role in emotional regulation and impulse control across various situations. This contributes to strengthening social communication skills and increasing social intelligence. Individuals with high self-awareness possess the ability to monitor their moods and understand their emotions and orientations, which enhances their psychological well-being, clarity of life perspective, and ability to cope with environmental pressures through mindfulness, optimism, and satisfaction.

Consequently, self-awareness serves as a protective factor that strengthens resilience, supports personality development, and reduces vulnerability to psychological and social disorders.

High levels of (Self.Awa.) also enable improved decision-making and are strongly associated with team performance and authentic leadership. Individuals with elevated self-awareness tend to be more effective in their work. Self-awareness encompasses three core concepts: Cognitive awareness, which reflects an individual's understanding of their perceptions and thinking processes; Multilevel awareness, which acknowledges the roles of both the conscious and unconscious in shaping an individual's responses to internal and external experiences; Awareness of others, which focuses on recognizing others' emotions and the impact of one's behavior on them; Self-awareness thus consists of two primary dimensions: personal self-awareness, which focuses on internal self-perception, and public self-awareness, which concerns an individual's sensitivity to external social cues [20].

When individuals possess a high capacity for understanding their psychological states, they develop insight into their emotional lives and exhibit autonomous, self-aware personalities capable of overcoming negative moods. Their rationality enables them to regulate their emotions effectively. As modern life imposes increasingly complex demands, self-awareness becomes even more essential, teaching individuals to value themselves and fostering deep understanding of their emotions and challenges. It aids in impulse control, managing diverse situations, enhancing intrinsic motivation, empathy, and social competence—skills that distinguish individuals who are most successful and socially adaptive [15].

Self-awareness refers to an individual's ability to make themselves the focus of their attention, collecting information about themselves and processing and storing it actively. Individuals with high levels of self-awareness can interpret their actions, thoughts, and emotions objectively [38].

Just as self-awareness is linked to (F. Th.), (Psy. Emp.) is also closely connected to it, especially among individuals with (Vi. Imps.). (Psy. Emp.) is a positive psychological construct associated with positive self-perception. It is a source of strength and energy that liberates individuals from external constraints and allows them to achieve desired goals, adapt to situational demands, enhance emotional regulation, control surrounding events, and foster a sense of personal value [52].

Similarly, (Psy. Emp.) is regarded as one of the most significant developmental mechanisms that enhance human efficiency by unleashing individual potential, promoting personal achievement, improving life quality, and supporting effective participation in community development. It refers to the foundational conditions that enable individuals or groups to gain control over determinants of their life quality and manage them creatively [36].

Psychological empowerment is a contemporary concept that elevates human capacities to advanced levels. Its essence revolves around granting individuals autonomy in performance, expanding their involvement in responsibility, and

deepening their awareness of their roles. It embodies an acknowledgment of individuals' right to freedom and control, strengthened by independent will, experience, knowledge, and intrinsic motivation [35].

Based on the foregoing, the current study was conducted to investigate the predictive roles of self-awareness and psychological empowerment in (F. Th.) among individuals with (Vi. Imps.).

2. Research Problem

Individuals with (Vi. Imps.) constitute a group that faces multiple challenges which affect their psychological and social adjustment, as well as their ability to plan for their future and make informed life decisions. The literature [40, 50, 54] indicates that (F. Th.) is associated with several psychological and cognitive factors, most notably self-awareness and psychological empowerment, given their critical role in enabling individuals to understand themselves, recognize their potentials, and organize their long-term goals.

Visual impairment, as a form of sensory disability, often leads to lower quality of life, reduced participation in social activities, feelings of social rejection, and diminished self-awareness. Therefore, examining such variables among individuals with (Vi. Imps.) is both necessary and timely [48].

Visual impairment directly affects various aspects of an individual's development, particularly psychological, social, and communicative functioning. Self-awareness is one of the essential factors that help mitigate the negative effects of this disability. It enables individuals with (Vi. Imps.) to understand themselves and effectively handle the challenges they face. Furthermore, it enhances their social adjustment and positive engagement with others. The degree of visual impairment and an individual's level of self-awareness jointly influence their ability to interact effectively and maintain balanced development. Thus, self-awareness is considered a key variable in explaining differences in psychological and social adjustment among visually impaired individuals [6].

In parallel, it is particularly important for individuals with (Vi. Imps.) to possess a high level of psychological empowerment. This makes it necessary to explore the factors that predict it, contribute to its development, and support its enhancement. Psychological empowerment strengthens individuals' performance, problem-solving ability, and achievement. It may be promoted through several strategies such as providing information, knowledge, rewards, self-enhancement, and deepening personal commitment. Together, these elements encourage visually impaired students to explore and utilize their personal strengths more effectively [49].

Psychological empowerment has attracted the attention of many researchers in educational and psychological fields due to its positive impact on mental health. It is viewed as a mechanism that transforms negative personal experiences into enhanced self-esteem during times of difficulty [17]. It also

serves as a source of strength and energy that enables individuals to break free from external control, strive toward meaningful goals, adapt to situational demands, and strengthen their sense of control and personal value [42].

Given that psychological empowerment plays a vital role in fostering positive and socially adaptive development—particularly among students with (Vi. Imps.)—it supports the formation of a stable and positive identity. It helps these students explore different social roles, reflect on meaningful feedback, and manage developmental transitions. Psychological empowerment also supports their exploration of self-concept and identity, and encourages engagement in various roles and responsibilities within their communities. In this way, visually impaired students begin to build meaningful social relationships, particularly with peers and broader society [45].

Previous studies have recommended further investigation of variables influencing psychological empowerment, including the works [4, 9, 11, 14, 29, 30]. In response to these recommendations, and to address the gap in the literature—particularly the absence of studies, to the best of the researcher's knowledge, examining self-awareness and psychological empowerment as predictors of future thinking among individuals with (Vi. Imps.)—this study was undertaken.

Along the same line, future thinking plays a crucial role in the lives of individuals, especially those with (Vi. Imps.). Numerous studies [1, 5, 37, 43, 57] highlight the importance of anticipating the future, envisioning future life patterns, and cultivating cognitive skills that enable visually impaired individuals to adapt effectively and integrate into society.

Despite the importance of these variables, the researcher—within the scope of available literature—found no study that examined self-awareness and psychological empowerment as predictors of future thinking specifically among individuals with visual impairments. This gap motivated the present study to investigate these relationships.

In Light of the Foregoing, the Study Problem Can Be Formulated in the Following Questions

- 1) To what extent do the variables of self-awareness and psychological empowerment predict levels of future thinking among individuals with visual impairments?
- 2) What is the level of self-awareness among individuals with visual impairments?
- 3) What is the level of psychological empowerment among people with visual impairments?
- 4) Does future thinking differ according to gender (male/female) and grade level (third/fourth/fifth/sixth)?

3. Research Objectives

The present study aims to achieve the following objectives:

- 1) Identify the level of self-awareness among individuals with visual impairments.
- 2) Identifying the level of psychological empowerment among people with visual impairments.

- 3) Determine whether statistically significant differences exist in future thinking based on gender (male/female) and grade level (third/fourth/fifth/sixth).
- 4) Investigate the extent to which future thinking can be predicted from levels of self-awareness and psychological empowerment among individuals with visual impairments.

4. Significance of the Study

First: Theoretical Significance

The theoretical importance of this study lies in:

- 1) Addressing a contemporary topic concerning the relationship between self-awareness and psychological empowerment as predictors of future thinking among individuals with visual impairments—a population that has received limited attention in Arab research. This contributes to enriching the psychological and educational literature related to this group.
- 2) Providing a valuable addition to the Arabic scholarly corpus by linking two essential psychological constructs—self-awareness and psychological empowerment—to future thinking, which reflects an individual's ability to plan and prepare for the future.
- 3) Supporting the theoretical framework related to psychological empowerment among individuals with visual impairments, as it represents a psychological and social indicator influenced by both personal and environmental factors. It also contributes to understanding the extent to which these individuals are satisfied with their lives, adapt to their disability, and achieve self-fulfillment within their communities.
- 4) Establishing a scientific foundation that may guide future researchers toward exploring psychological determinants influencing future thinking among various disability groups, thus contributing to the development of explanatory models and theories of psychological and social growth.
- 5) Opening new research avenues focusing on empowering individuals with disabilities and strengthening their capacity to face future challenges with confidence and elevated self-awareness.

Second: Applied Significance

The applied significance of the study includes:

- 1) Providing decision-makers, educators, and special education practitioners with scientifically grounded information that can be utilized in designing educational and counseling programs aimed at enhancing self-awareness and improving psychological empowerment among individuals with visual impairments.
- 2) Offering indicators that psychological and social counselors may rely on when developing intervention programs that enhance psychological and social adjustment

among individuals with visual impairments. Such programs may focus on strengthening self-awareness, boosting psychological empowerment, and fostering a sense of competence and life satisfaction.

- 3) Supporting the development of educational curricula in schools that include visually impaired students by integrating activities and practical exercises that build self-awareness and foster future-oriented thinking.
- 4) Directing the efforts of researchers and practitioners toward emphasizing positive psychological aspects in the lives of individuals with visual impairments—shifting from a deficit-based perspective to one that focuses on building capabilities and promoting self-empowerment.
- 5) Constructing and standardizing three measurement tools to assess self-awareness, psychological empowerment, and future thinking among individuals with visual impairments, thereby contributing instruments that can be used in future research.

5. Research Terminology

5.1. Self-Awareness

Defined by the researcher as a cognitive and emotional process through which individuals develop an integrated understanding of themselves—recognizing their emotions, motives, behaviors, strengths, and weaknesses. It also includes the ability to evaluate oneself and interact consciously with others. Self-awareness is measured by the score obtained by individuals with visual impairments on the self-awareness scale employed in this study.

5.2. Psychological Empowerment

Defined as the degree to which individuals with visual impairments experience feelings of competence, confidence in their abilities, and the capacity to influence learning situations and daily life. It involves awareness of abilities and potentials, actual practice of choice and decision-making, behavior regulation, and positive management of emotions and motives. Psychological empowerment is expressed through skills such as initiative, responsibility, self-control, sound decision-making, adaptability, and active engagement in social and educational environments.

5.3. Future Thinking

Defined as an organized cognitive process aimed at anticipating and planning for the future consciously and insightfully. It draws upon analysis of the present, use of prior experiences, goal setting, and informed decision-making. It is measured by the score individuals with visual impairments obtain on the future thinking scale used in the current study.

6. Research Delimitations

- 1) Human Delimitation: Visually impaired students in Al-Nour schools in Kafr El-Sheikh Governorate, Egypt.
- 2) Temporal Delimitation: Second semester of the 2025 academic year.
- 3) Spatial Delimitation: Kafr El-Sheikh Governorate, Egypt.
- 4) Thematic Delimitation: The study variables—self-awareness, psychological empowerment, and future thinking.

7. Theoretical Concepts

7.1. The Concept of Self-Awareness

Many scholars agree that self-awareness comprises both internal and external components. Internal self-awareness refers to the system of beliefs and self-perceptions that encompass cognitive and emotional influences, personal interests, goals, values, and meaningful lifestyle patterns. In contrast, external self-awareness involves an individual's perceptions of their physical appearance and behaviors, in addition to the social dimension that reflects how one evaluates oneself based on feedback from others, and how individuals interpret others' reactions to, and impressions of, their behavior [20, 22, 33].

According to Mansour (2022) [34], self-awareness is the individual's ability to recognize their potential and capabilities, and to understand the relationship between their internal thoughts and external life events. This understanding enables individuals to address life problems effectively and meaningfully. It also involves accurately identifying the nature of one's emotional experiences, which makes self-awareness the foundation of emotional balance and comprises emotional awareness, accurate self-evaluation, and self-confidence.

Self-awareness is also described as a dynamic and continuous process, rather than a static phenomenon. It centers on monitoring oneself and processing general self-related information through social interaction within one's environment. This involves recognizing thoughts, beliefs, and internal emotions, thereby encompassing both public and private self-aspects [27].

Moreover, self-awareness includes an individual's understanding of their emotional and mood states. Humans do not detach from their emotions; rather, they utilize them to make sound decisions. Such understanding allows individuals to monitor their internal states objectively and determine when and how to respond. In contrast, the absence of self-awareness makes it difficult to accurately perceive the emotions of others [15].

A review of these definitions demonstrates that self-awareness is a multidimensional and complex process that integrates internal and external components. It encompasses one's perceptions of thoughts, beliefs, emotions, and values, as well as awareness of others' perceptions and the impact of one's behavior on them. Some definitions emphasize its dynamic and

evolving nature, shaped through social interaction and personal experiences, while others highlight its role in emotional regulation, psychological balance, and self-confidence.

7.2. Dimensions of Self-Awareness

Self-awareness encompasses several dimensions, including:

- 1) Self-evaluation: The ability to identify one's strengths and weaknesses and work toward improving areas of weakness.
- 2) Awareness of thoughts: Understanding and comprehending one's own thoughts or those presented to them.
- 3) Awareness of others: The ability to sense others' emotions and interact with them in various situations (e.g., joy, sadness).
- 4) Emotional expression: Clearly articulating internal emotions and feelings.
- 5) Behavioral regulation: The ability to modify behavior from negative to positive with flexibility and ease [27].

These dimensions were selected for the present study due to their relevance to the research objectives and study population.

Section Two: The Concept of Psychological Empowerment

The term *empowerment* is derived from the word *power*. The concept of power emerged in social psychology during the 1960s, and researchers explored it through administrative and leadership functions within organizations. Power, a form of social interaction among individuals, attracted the interest of philosophers, psychologists, and educators. John Dewey, in *Democracy and Education*, asserted that power represents the capacity for growth—an inherent positive force within the developing learner. Dewey added that the development of power depends on others' need for it and on flexibility, which he defined as the capacity to learn from experience—an essential human ability. The term *power* in French and Latin originates from *potere*, meaning “to have the ability to do,” or “to be capable of acting” [16].

Psychological empowerment is also an active process, shaped by external circumstances yet rooted in human agency. It promotes self-acceptance, self-confidence, initiative, decision-making, and control over environmental resources [18].

Psychologically empowered individuals are more creative, resilient, persistent, engaged, and satisfied with their work. They also enjoy better mental health [53].

Zhang et al. (2018) define it as “an emotional state that instills confidence in individuals that they can achieve desired goals successfully [58]”.

Alghaberi and Al-Adwan (2022) [12] add that psychological empowerment is “the individual's ability to employ psychological capabilities to maintain high levels of self-regulation and sound decision-making across life situations”.

Describe psychological empowerment as “a motivational state derived from an individual's perception that they have the option to initiate actions, regulate them, influence their environment, and confidently engage in meaningful activities”

[55].

A synthesis of these definitions indicates that psychological empowerment reflects a paradigm shift in understanding human potential. Individuals are no longer viewed merely as products of their environment but as active agents capable of shaping their own lives. Psychological empowerment revolves around belief in one's ability to control life circumstances and make competent decisions, grounded in intrinsic motivation and an internal locus of control. Its significance lies in fostering competence, self-confidence, engagement, creativity, resilience, and achievement—qualities essential for an active and influential member of society.

Section Three: The Concept of Future Thinking

Future thinking is a dynamic, forward-looking cognitive process that rejects inertia and limitations, seeking instead to transcend current realities toward broader horizons of development and change. A future-oriented mindset motivates individuals to transform existing social conditions and represents an evolving method for understanding problems and supporting strategic planning [24].

Lehtonen (2012) [32] defined future thinking as a form of cognition linked to developing future strategies. It progresses through several stages, including imagining, expanding, predicting, visualizing, planning, and decision-making [21], described it as the capacity to imagine potential future events or unlimited hypothetical scenarios.

Abu Mousa (2017) [8] explained that future thinking is a cognitive process involving interconnected skills based on analyzing past and present information to form accurate future projections.

Basta and Al-Ajmi (2025) [19] emphasized that future thinking enables students to envision the future and analyze potential trends through planning, prediction, anticipation, imagination, visualization, and future problem-solving.

A review of these definitions indicates that future thinking consistently involves higher-order cognitive processes such as analysis, imagination, visualization, and planning. It relies on current information and past experiences to construct coherent images of potential futures.

7.3. Skills of Future Thinking

Multiple frameworks have attempted to classify the skills associated with future thinking. According to [26], future thinking includes four major skill domains:

- 1) Expectation: Estimating potential outcomes of actions and predicting the trajectory of future events based on prior experiences.
- 2) Prediction: Projecting what is likely to occur in the future.
- 3) Visualization: Forming integrated mental images of anticipated future events, influenced by creativity and scientific imagination.
- 4) Future problem-solving: Analyzing potential challenges and devising strategies to address complex problems that

may arise.

Abdel-Fattah (2022) [3] identified future thinking skills as: future planning, future prediction, future visualization, future imagination, and future problem-solving.

Based on these classifications, the present study adopts the following skill set:

- 1) Future prediction
- 2) Future planning
- 3) Future imagination
- 4) Positive future thinking

7.4. The Previous Studies Are Presented as Follows

Study by Singh and Sarkar (2012) [46]

This study aimed to examine the mediating role of work engagement in the relationship between psychological empowerment and innovative behavior. The researchers employed the descriptive method and used a psychological empowerment scale and an innovative behavior scale, administered to a sample of 401 female primary school teachers in India. The findings indicated a mediating role for the dimension of meaning, and after controlling for the non-work domain, self-determination at both the job and organizational levels directly influenced employees' innovative behavior. However, no mediating effect was found for work engagement, and neither competence nor impact had any direct or indirect influence on innovative behavior.

Study by Abu Ghali (2016) [7]

This study examined the relationships among psychological empowerment, self-awareness, and social security, as well as the predictive power of self-awareness and social security for psychological empowerment. The sample consisted of 315 nurses randomly selected from governmental hospitals in the Gaza governorates. Results revealed statistically significant positive correlations among all study variables. Self-awareness accounted for approximately 21.8% of the variance in psychological empowerment, followed by social security, which explained about 21.6% of the variance. Combined, the independent variables accounted for around 31.2% of the variance in psychological empowerment. The study also showed no statistically significant differences in psychological empowerment, self-awareness, or social security based on gender, educational level, or years of experience.

Study by Yassin (2018) [56]

This study aimed to assess levels of future thinking and self-awareness among university students and explore the relationship between them. It also examined differences based on gender (male/female) and academic discipline (scientific/humanities), as well as the predictive role of self-awareness in future thinking. Using the descriptive correlational method, the researcher applied self-developed scales of future thinking and self-awareness to a sample of students from various disciplines. Findings showed that students had high levels of future thinking and self-awareness, with a positive correlation between both variables. No statistically significant differences

were found based on gender or academic discipline. Additionally, self-awareness significantly predicted future thinking.

Study by Saud (2019) [44]

This study examined positive and negative thinking and their contribution to self-awareness among Iraqi university students. It also explored differences in positive and negative thinking and self-awareness based on gender, academic discipline, and academic year, as well as the predictive power of positive and negative thinking for self-awareness. The sample consisted of 361 students. The researcher used a scale of positive and negative thinking, along with the Fenigstein et al. (1975) self-awareness scale, modified by Scheier & Carver (1985). Findings showed that students tended toward positive thinking and possessed positive self-awareness. No significant differences appeared in most variables except for one domain—problem-oriented thinking—which favored first-year students. Additionally, two significant differences were found in self-awareness favoring males: the overall score and the public self-awareness domain. Positive and negative thinking contributed significantly, though weakly, to self-awareness.

Study by Al-Hammam & Al-Barai (2023) [13]

This study examined levels of cognitive flexibility and psychological empowerment, as well as differences based on gender and academic specialization (theoretical/practical colleges) and their interaction. It also assessed the extent to which cognitive flexibility predicts psychological empowerment among students at King Faisal University. The researchers used Mohammad's (2016) cognitive flexibility scale and a self-developed psychological empowerment scale, applied to 405 undergraduate students selected through stratified random sampling. Findings showed high levels of cognitive flexibility and psychological empowerment. Significant differences favored males in cognitive flexibility, with interaction effects favoring males in practical disciplines. In psychological empowerment, differences also favored males, while no differences were found based on specialization or interaction between gender and specialization. Cognitive flexibility was found to significantly predict psychological empowerment.

Study by Salloum (2024) [41]

This study explored the relationship between positive thinking and self-awareness among fourth-year students in a psychological counseling program. It also examined gender differences. Using a descriptive-analytical approach, the study applied two standardized scales to a sample of 51 students. Results revealed a positive correlation between positive thinking and self-awareness, with high levels of both variables among participants. No statistically significant gender differences were found.

Study by Duman and Wang (2025) [25]

This study investigated access to autobiographical memories and the phenomenological quality of future thinking in relation to self-conscious emotions (e.g., pride, shame, admiration, contempt), along with the influence of culture and self-esteem. The study included two cultural groups: European Americans and East Asians. Participants in the first study ($n =$

237) recalled emotional events, while participants in the second ($n = 279$) imagined future events tied to self-conscious emotions. Results showed that European Americans were more capable of recalling positive than negative memories—both self-related and related to others—and this positivity correlated with higher self-esteem. They also imagined more self-focused future events and perceived their positive memories as more meaningful and temporally close. East Asians, on the other hand, showed less distinction between positive and negative memories or between self- and other-related events, with weaker associations between recall ability and self-esteem. The findings revealed that self-esteem mediated cultural differences in preferences for positive memories among European Americans compared to East Asians.

General Commentary on Previous Studies

A review of the prior literature reveals significant diversity in research approaches addressing self-awareness, psychological empowerment, future thinking, and associated psychological variables. Most studies focused on correlational and predictive relationships across educational and professional settings. Collectively, these studies demonstrated that both self-awareness and psychological empowerment are linked to positive outcomes such as job performance, future thinking, academic perseverance, and psychological well-being, though the strength of these relationships varies depending on demographic, cultural, and contextual factors.

Moreover, the findings highlight that self-awareness and psychological empowerment are dynamic rather than fixed constructs. Their levels differ according to educational environment, academic specialization, gender, and life experiences. While some studies reported high levels of these variables among university students, others found moderate or weaker effects, especially when influenced by environmental factors such as social security or organizational support. This variation underscores the importance of viewing self-awareness and psychological empowerment as context-sensitive developmental processes. Consequently, there is a growing need for tailored educational and psychological programs—particularly for individuals with visual impairments—to enhance their future-oriented capabilities and improve their psychological and social adjustment.

Study Procedures:

8. Study Methodology

The descriptive method was employed due to its suitability for the nature and objectives of the study, which seeks to examine self-awareness and psychological empowerment as predictors of future thinking among individuals with visual impairments.

Study Population:

The study population consisted of individuals with visual impairments residing in Kafr El-Sheikh Governorate, Arab Republic of Egypt.

Study Sample:

The study sample included both a pilot sample and a main sample as follows:

Pilot Sample:

The pilot sample comprised 15 students with visual impairments from Kafr El-Sheikh Governorate. This sample was used to calculate the psychometric properties of the research instruments.

Main Sample:

The main study sample consisted of 50 students with visual impairments selected from Kafr El-Sheikh Governorate. This is from Al-Nour School for the Visually Impaired in Kafr El-Sheikh Governorate, whose ages range between (9-12) years. Their demographic distribution is presented below:

Table 1. Distribution of the Research Sample.

Variable	Category	Frequency	Percentage
Gender	Males	30	60%
	Females	20	40%
Grade Level	Third grade	12	24%
	Fourth grade	13	26%
	Fifth grade	13	26%
	Sixth grade	12	24%
Total		50	100%

9. Research Tools

9.1. Self-Awareness Scale (Developed by the Researcher)

- 1) The scale aims to assess the level of self-awareness among individuals with visual impairments.
- 2) The development of the Self-Awareness Scale followed several steps:

- 3) Reviewing the major scales and studies previously developed in the field of self-awareness, including [13, 15, 31, 39, 51].
- 4) Identifying the dimensions of the scale, which, in the present study, consist of five domains:
 - a) First Dimension: Self-Evaluation (8 items)
 - b) Second Dimension: Thought Awareness (8 items)
 - c) Third Dimension: Awareness of Others (8 items)
 - d) Fourth Dimension: Emotional Disclosure (8 items)
 - e) Fifth Dimension: Behavior Regulation (8 items)
- 5) The scale contains 40 items, distributed equally across the five domains (8 items per domain), and aligned with the operational definition adopted. Each item offers five response options: Always, Often, Sometimes, Rarely, Never.

9.2. Psychometric Properties of the Scale

9.2.1. Content Validity (Judges' Validity)

The initial version of the scale was reviewed by 10 experts specializing in education, psychology, and mental health. They evaluated:

- 1) The clarity of the items
- 2) The appropriateness of wording for the target population
- 3) The alignment of each item with the overall construct and its corresponding dimension

Agreement among the reviewers ranged between 90% and 100%, which is considered highly satisfactory.

9.2.2. Internal Consistency

Internal consistency was examined by:

- 1) Calculating the correlation coefficients between each item and the total score of its respective dimension.
- 2) Calculating the correlation coefficients between each dimension and the overall scale score.

The scale was administered to 15 students from the study population (not included in the main sample). The following table presents Spearman correlation coefficients between each item and its dimension:

Table 2. Correlation Coefficients Between Each Item and Its Corresponding Dimension ($n = 15$).

Self-Evaluation		Thought Awareness		Awareness of Others		Emotional Disclosure		Behavior Regulation	
item	R	item	R	item	R	item	R	item	R
1	.678**	9	.687**	17	.635**	25	.527**	33	.842**
2	.754**	10	.668*	18	.635**	26	.632**	34	.654**
3	.575**	11	.876**	19	.764**	27	.739**	35	.740**
4	.654**	12	.757**	20	.575**	28	.629**	36	.571**
5	.565**	13	.576**	21	.676**	29	.734**	37	.508**
6	.666**	14	.765**	22	.634**	30	.787**	38	.787**

Self-Evaluation		Thought Awareness		Awareness of Others		Emotional Disclosure		Behavior Regulation	
item	R	item	R	item	R	item	R	item	R
7	.617**	15	.764**	23	.725**	31	.602**	39	.671**
8	.616**	16	.733**	24	.679**	32	.804**	40	.783**

Note: All coefficients are significant at the 0.01 level.

The results indicate that all correlation coefficients are statistically significant, which supports the internal consistency and construct validity of the scale.

Table 3. Correlation Coefficients Between Each Dimension and the Total Score ($n = 15$).

Dimension	Correlation
Self-Evaluation	.759**
Thought Awareness	.663**
Awareness of Others	.772**
Emotional Disclosure	.780**
Behavior Regulation	.798**

All coefficients range between .66 and .79, indicating strong validity and confirming that the dimensions are positively associated with the overall construct of self-awareness.

9.2.3. Reliability of the Scale

Cronbach's alpha was used to assess reliability. The results are presented in the table below:

Table 4. Reliability Coefficients of the Self-Awareness Scale (Cronbach's Alpha).

Dimension	Alpha
Self-Evaluation	0.879
Thought Awareness	0.789
Awareness of Others	0.798
Emotional Disclosure	0.809
Behavior Regulation	0.798
Total Scale	0.894

The overall reliability coefficient (0.894) indicates a high level of internal consistency. All dimensions achieved alpha

coefficients above 0.78, which are statistically acceptable and supportive of the scale's reliability.

9.2.4. Scoring Method

Scores range from:

- 1) 5 = Always
- 2) 4 = Often
- 3) 3 = Sometimes
- 4) 2 = Rarely
- 5) 1 = Never

Thus, the total score ranges from:

- 1) Minimum: 40
- 2) Maximum: 200

Higher scores indicate higher levels of self-awareness, whereas lower scores indicate lower levels of self-awareness. Examples of items from this scale include: I can readily identify my personal strengths; I am able to recognize areas in myself that require development; I reflect on my behavior when I make a mistake in order to learn from it; I evaluate my actions objectively without exaggeration or minimization; and I strive to improve aspects of myself that I perceive as weaknesses.

9.3. Psychological Empowerment Scale for Individuals with Visual Impairments

- 1) The scale aims to assess the level of psychological empowerment among individuals with visual impairments.
- 2) The Psychological Empowerment Scale was developed following several steps:
- 3) Reviewing previous scales and related studies, such as [11, 13, 26, 28, 29, 44, 47].
- 4) Based on the reviewed literature, the researcher formulated an operational definition of psychological empowerment appropriate for the study sample.
- 5) The current study identified four dimensions of psychological empowerment:
 - a) First Dimension: Meaning: Reflects the extent to which the student perceives significance and value in the activities he/she engages in.
 - b) Second Dimension: Competence: Reflects the student's confidence in his/her ability to succeed and excel in different life domains.

c) Third Dimension: Self-Determination: Refers to the student's autonomy in making academic decisions and regulating his/her own behavior.

d) Fourth Dimension: Impact: Reflects the extent to which the student feels effective in influencing the environment and participating in decision-making.

These dimensions were selected based on previous studies addressing psychological empowerment and their suitability for the characteristics of the current study sample.

The scale consists of 24 items, distributed across the four dimensions (6 items per dimension). Each item includes five response options: Always, Often, Sometimes, Rarely, Never.

Psychometric Properties of the Scale

9.3.1. Content Validity (Judges' Validity)

The initial version of the scale was presented to nine expert reviewers specialized in psychology and mental health. They evaluated:

- 1) the appropriateness of item wording for the study sample,
- 2) the clarity of items,
- 3) the relevance of each item to its intended dimension,
- 4) and the suitability of the scale instructions.

Agreement percentages ranged between 77.8% and 100%, which are considered acceptable. The reviewers suggested several modifications to the wording of some items, and the researcher implemented those consistent with the study goals, variables, and sample characteristics.

9.3.2. Internal Consistency

Internal consistency was assessed by calculating:

- 1) Correlations between each item and its corresponding dimension, and
- 2) Correlations between each dimension and the total score of the scale.

The scale was administered to 15 students outside the main study sample.

Table 5. Correlation Coefficients Between Each Item and Its Corresponding Dimension (Psychological Empowerment Scale).

Meaning		Competence		Self-Determination		Impact	
Item	R	Item	R	Item	R	Item	R
1	.576**	7	.547**	13	.495**	19	.751**
2	.589**	8	.535**	14	.664**	20	.569**
3	.684**	9	.731**	15	.671**	21	.746**
4	.671**	10	.620**	16	.583**	22	.565**
5	.664**	11	.636**	17	.694**	23	.778**
6	.552**	12	.547**	18	.678**	24	.889**

All correlations are significant at the (0.01) level.

The results show strong and statistically significant correlations between all items and their respective dimensions, indicating high internal consistency.

Table 6. Correlation Coefficients Between Each Dimension and the Total Score ($n = 15$).

Dimension	Correlation
Meaning	.868**
Competence	.789**
Self-Determination	.817**
Impact	.677**

All correlation coefficients range from 0.67 to 0.86, confirming that each dimension is strongly related to the overall construct of psychological empowerment.

9.3.3. Reliability of the Scale

Cronbach's alpha was used to assess internal consistency reliability:

Table 7. Reliability Coefficients (Cronbach's Alpha) for the Psychological Empowerment Scale.

Dimension	Alpha
Meaning	0.663
Competence	0.679

Dimension	Alpha
Self-Determination	0.734
Impact	0.776
Total Scale	0.798

The overall reliability coefficient of 0.79 indicates a high level of consistency. All dimensions achieved reliability levels above 0.66, which are statistically acceptable.

Additionally, the researcher calculated test–retest reliability by re-administering the scale to the same 15 students after 15 days:

- 1) Total score correlation: 0.87
- 2) Dimension correlations: 0.88 – 0.87 – 0.79 – 0.76

These high correlations reflect the temporal stability of the scale.

9.3.4. Scoring Method

The final version of the scale contains 24 items. Each item is scored as follows:

- 1) 5 = Always
- 2) 4 = Often
- 3) 3 = Sometimes
- 4) 2 = Rarely
- 5) 1 = Never

Thus, the scale score ranges from:

- 1) Minimum score: 24
- 2) Maximum score: 120

Higher scores indicate a higher level of psychological empowerment, while lower scores indicate a low level of psychological empowerment among individuals with visual impairments. Examples of items from this scale include: I trust my ability to succeed in academic subjects; I can complete tasks efficiently; I possess the skills necessary to excel in my studies; I am able to overcome the challenges I encounter; and I feel capable of achieving academic excellence.

9.4. Future Thinking Scale for Individuals with Visual Impairments

- 1) The scale aims to assess the level of future thinking among individuals with visual impairments.
- 2) The Future Thinking Scale was developed based on the following steps:
 - a) Reviewing existing scales and previous studies related to future thinking, such as: [3, 6, 8, 26].
 - b) Identifying the dimensions of the scale, which, in the present study, consist of four domains:
 - i) First Dimension: Future Problem-Solving Skills (10 items)
 - ii) Second Dimension: Future Forecasting Skills (10 items)
 - iii) Third Dimension: Future Planning Skills (10 items)
 - iv) Fourth Dimension: Future Imagination Skills (10 items)
- 3) The scale consists of 40 items, distributed equally across the four dimensions (10 items each), according to the operational definition. Each item provides five response options: Always, Often, Sometimes, Rarely, Never.

9.4.1. Content Validity (Judges' Validity)

The initial version of the scale was reviewed by 10 experts in education, psychology, and mental health. They evaluated:

- 1) the clarity and appropriateness of the wording of the items,
- 2) the linguistic suitability for the study population,
- 3) the relevance of each item to the construct and its designated dimension,
- 4) and the suitability of the scale instructions.

Agreement percentages ranged between 80% and 100%, indicating high content validity.

9.4.2. Internal Consistency

- 1) Calculating correlation coefficients between each item and the total score of its corresponding dimension.
- 2) Calculating correlation coefficients between each dimension and the overall scale score.

The scale was administered to 15 visually impaired individuals who were not part of the main study sample.

Table 8. Correlation Coefficients Between Each Item and Its Corresponding Dimension (Future Thinking Scale).

Future Problem-Solving		Future Forecasting		Future Planning		Future Imagination	
Item	R	Item	R	Item	R	Item	R
1	.664**	11	.787**	21	.826**	31	.767**
2	.763**	12	.656**	22	.695**	32	.833**
3	.764**	13	.865**	23	.639**	33	.737**

Future Problem-Solving		Future Forecasting		Future Planning		Future Imagination	
Item	R	Item	R	Item	R	Item	R
4	.768**	14	.826**	24	.874**	34	.852**
5	.616**	15	.827**	25	.884**	35	.841**
6	.777**	16	.637**	26	.683**	36	.764**
7	.886**	17	.566**	27	.634**	37	.856**
8	.865**	18	.665**	28	.645**	38	.735**
9	.853**	19	.774**	29	.796**	39	.724**
10	.744**	20	.675**	30	.609**	40	.705**

All coefficients are significant at the 0.01 level.

These results confirm that all items show strong and significant correlations with their intended dimensions, indicating robust internal consistency.

Table 9. Correlation Coefficients Between Each Dimension and the Total Score ($n = 15$).

Dimension	Correlation
Future Problem-Solving	.867**
Future Forecasting	.976**
Future Planning	.955**
Future Imagination	.936**

Correlation coefficients ranged between 0.86 and 0.97, all of which are statistically significant at the 0.01 level, demonstrating strong associations between the dimensions and the overall construct.

9.4.3. Reliability of the Scale

Reliability was assessed using Cronbach's alpha, as shown below:

Table 10. Reliability Coefficients (Cronbach's Alpha) for the Future Thinking Scale.

Dimension	Alpha
Future Problem-Solving	0.866
Future Forecasting	0.894
Future Planning	0.922
Future Imagination	0.913

Dimension	Alpha
Total Scale	0.945

The overall reliability coefficient (0.945) reflects a very high level of internal consistency. Each dimension achieved reliability values above 0.86, which are statistically strong indicators of reliability and measurement stability.

9.4.4. Scoring Method

The final version of the scale includes 40 items. Scoring follows this pattern:

- 1) 5 = Always
- 2) 4 = Often
- 3) 3 = Sometimes
- 4) 2 = Rarely
- 5) 1 = Never

Thus, the total score ranges from:

- 1) Minimum: 40
- 2) Maximum: 200

Higher scores indicate a high level of future thinking, whereas lower scores indicate a low level of future thinking among individuals with visual impairments. Examples of items from this scale include: I identify problems that I may encounter in the future; I recognize the causes of potential future problems; I develop multiple solutions for future problems; I propose various strategies to address future issues; and I evaluate the solutions I generate to resolve future problems.

10. Ethical Considerations

This study adhered to the established ethical principles governing educational and psychological research, particularly those relevant to individuals with special needs. The key ethical considerations included the following:

10.1. Informed Consent

Participants and, when necessary, their legal guardians were provided with clear and comprehensible explanations regarding the purpose of the study, its procedures, and their rights. Consent was obtained after ensuring that all information was delivered in accessible formats suitable for individuals with visual impairments, such as verbal explanation or audio recordings.

10.2. Privacy and Confidentiality

The researchers ensured strict confidentiality of all personal data and used the collected information exclusively for research purposes. Data were analyzed and presented in aggregate form, without disclosing any identifying information that might reveal the identity of participants.

10.3. Non-maleficence

Throughout the research process, the researcher took all necessary precautions to prevent any psychological, social, or emotional harm to participants with visual impairments. A safe and accommodating environment was ensured during the administration of research instruments.

10.4. Respect for Participants

All participants were treated with dignity and respect, with full consideration of their individual needs and personal circumstances. Participants were also informed of their right to withdraw from the study at any stage without any negative consequences.

10.5. Justice

The selection of the sample followed fair and objective criteria, guaranteeing equal opportunities for all individuals with visual impairments who met the inclusion requirements, without any form of discrimination.

10.6. Beneficence

The research instruments and procedures were designed to provide participants with a constructive and positive experience, potentially enhancing aspects of self-awareness and psychological empowerment in an indirect manner.

10.7. Accessibility Considerations

Appropriate accommodations were made to facilitate data collection for visually impaired participants, such as audio-recorded questions and verbal administration of scale items. The nature of visual impairment was fully considered in the preparation of guidelines and research tools.

10.8. Scientific Integrity

The researcher adhered to principles of accuracy, honesty, and objectivity in data collection, analysis, and interpretation, ensuring that findings were reported without bias or unethical modification.

11. Study Results and Discussion

11.1. Answer to the First Research Question

What is the level of self-awareness among individuals with visual impairments?

To answer this question, relative weights were calculated according to the five-point Likert scale, where responses were assigned the values (5–4–3–2–1). To determine the relative weight, the range was calculated ($5 - 1 = 4$), then divided by the number of scale levels ($4 \div 5 = 0.80$). This value was then added sequentially to the lowest value on the scale (1) to determine the evaluation intervals based on the mean relative weight. Table 11 below illustrates the classification levels:

Table 11. Evaluation According to the Mean Relative Weight.

No.	Level	Assigned Value	Relative Weight Range
1	Very High	5	5.00 – 4.21
2	High	4	4.20 – 3.41
3	Moderate	3	3.40 – 2.61
4	Low	2	2.60 – 1.81
5	Very Low / None	1	1.80 – 1.00

To determine the level of self-awareness among individuals with visual impairments, means and standard deviations of the

participants' scores on the scale were calculated. Table 12 presents these results:

Table 12. Means, Standard Deviations, Rank Order, and Levels of Self-Awareness.

No.	Dimension	Mean	Std. Deviation	Level	Rank
1	Self-Evaluation	3.069	1.269	Moderate	3
2	Thought Awareness	2.917	1.188	Moderate	4
3	Awareness of Others	3.23	1.136	Moderate	1
4	Emotional Disclosure	3.16	1.1977	Moderate	2
5	Behavior Regulation	2.72	1.158	Moderate	5
	Total Score	3.012	1.191	Moderate	—

The results in Table 12 indicate that the overall level of self-awareness, as well as all its dimensions, falls within the moderate range. The overall mean score was 3.01 (SD = 1.19).

- 1) Self-Evaluation ranked third (M = 3.06, SD = 1.26).
- 2) Thought Awareness ranked fourth (M = 2.91, SD = 1.18).
- 3) Awareness of Others ranked first (M = 3.22, SD = 1.13).
- 4) Emotional Disclosure ranked second (M = 3.15, SD = 1.19).
- 5) Behavior Regulation ranked last (M = 2.71, SD = 1.15).

Interpretation of Results

Students with visual impairments demonstrate an adequate level of awareness of their emotions, behaviors, and thoughts, yet they may encounter challenges in developing a comprehensive and deep understanding of themselves and the impact of their actions on others. The moderate level of self-awareness reflects a limited capacity to balance self-perception with social interaction, suggesting that the educational and social experiences available to them partially support self-awareness development but do not consistently provide sufficient opportunities for reflective thinking or in-depth exploration of emotions and ideas. Moreover, constraints associated with visual impairment can affect learning through direct observation and sensory experiences, thereby limiting opportunities to cultivate advanced self-recognition and interpersonal skills. Educational and community environments often provide essential support for daily needs and school adaptation, but they may not sufficiently focus on fostering self-awareness, emotional expression, and strategic self-regulation skills.

Comparison with Previous Studies

These findings align with several previous studies:

- 1) Saud (2018) [44]: Found that students possess positive but not high levels of self-awareness, with positive thinking contributing only minimally to self-awareness.
- 2) Yassin (2018) [56]: Confirmed a correlation between self-awareness and future thinking, noting a relatively elevated—but not highly advanced—level of self-awareness.
- 3) Al-Dabbouni (2023) [10]: Reported that self-awareness is positively associated with future perceptions and psychological well-being, although the level itself was moderate rather than high.
- 4) Salloom (2024) [41]: Found a correlational relationship between positive thinking and self-awareness, with self-awareness at a moderate level.

Overall, the present findings fall within the range of moderate self-awareness, consistent with the conclusions of previous relevant research.

11.2. Answer to the Second Research Question

What is the level of psychological empowerment among individuals with visual impairments?

To answer this question, the means and standard deviations of students' scores on the psychological empowerment scale were calculated. Table 13 presents the results:

Table 13. Means, Standard Deviations, Rank Order, and Levels of Psychological Empowerment.

No.	Dimension	Mean	Std. Deviation	Level	Rank
1	Meaning	3.196	1.355	Moderate	4
2	Competence	3.18	1.097	Moderate	5
3	Self-Determination	3.2625	1.097	Moderate	3

No.	Dimension	Mean	Std. Deviation	Level	Rank
4	Impact	3.3225	1.160	Moderate	1
	Total Score	3.2535	1.165	Moderate	—

The results in Table 13 show that the overall level of psychological empowerment, as well as all of its dimensions, falls within the moderate range.

- 1) The overall mean score was 3.25 (SD = 1.16).
- 2) Meaning ranked fourth (M = 3.19, SD = 1.35).
- 3) Competence ranked fifth (M = 3.18, SD = 1.09).
- 4) Self-Determination ranked third (M = 3.26, SD = 1.09).
- 5) Impact ranked first (M = 3.32, SD = 1.16).

Interpretation of Results

The moderate level of psychological empowerment among students with visual impairments indicates that, while their educational and social environments provide a reasonable degree of support, they are insufficient to foster a strong sense of meaning, competence, autonomy, and influence. Educational programs often emphasize meeting basic needs and facilitating school adaptation rather than promoting identity development or enhancing students' sense of personal efficacy and control over their environment. Limited access to activities further reduces opportunities for direct mastery experiences, weakening perceived self-efficacy, while the nature of the impairment may increase reliance on others, constraining perceived autonomy. Classroom practices may also offer insufficient opportunities for self-expression and participation in decision-making, which affects perceived influence, whereas the sense of meaning is shaped by the relatively narrow range of future-oriented experiences available. Overall, the moderate level of psychological empowerment reflects a

balance between the support provided and the challenges faced, underscoring the need for more comprehensive interventions aimed at enhancing self-efficacy, expanding active participation, and providing enriched experiences that strengthen students' sense of meaning, capability, and influence.

Comparison with Previous Studies

These findings align with several previous studies indicating that psychological empowerment tends to be moderate:

- 1) Abu Ghali (2016) [7]: reported that psychological empowerment develops at a moderate level and is influenced by factors such as self-awareness and social security.
- 2) Abdel-Fattah (2018) [2]: found that psychological empowerment is affected by mediating variables, resulting in levels that are not high.
- 3) Singh and Sarkar (2012) [46]: highlighted the limited influence of some empowerment dimensions.

Overall, the present findings fit within the broader pattern of research showing psychological empowerment at moderate levels among different populations.

11.3. Answer to the Third Research Question

Does future thinking differ according to gender (male/female) and grade level (third, fourth, fifth, sixth) among individuals with visual impairments?

11.3.1. Gender

Table 14. Differences in Future Thinking by Gender (Male/Female).

Dimension	Group	N	Mean	Std. Deviation	t-value	Significance
Future Problem-Solving	Male	30	34.60	6.278	1.404	.168
	Female	20	31.40	8.034		
Future Forecasting	Male	30	31.72	5.983	1.790	.081
	Female	20	35.47	7.080		
Future Planning	Male	30	33.64	5.663	1.883	.067
	Female	20	37.47	7.080		
Future Imagination	Male	30	29.76	6.747	1.401	.169
	Female	20	33.33	9.355		
	Male	30	129.72	11.967	1.824	.076

Dimension	Group	N	Mean	Std. Deviation	t-value	Significance
Total Score	Female	20	137.67	15.416		

The results in Table 14 indicate no statistically significant differences in future thinking attributable to gender. Although the mean scores differ slightly, these differences do not reach statistical significance. Thus, future thinking and its dimensions among individuals with visual impairments do not vary between males and females.

11.3.2. Grade Level

To answer this part, a ONE-WAY ANOVA test was used to determine whether statistically significant differences exist in future thinking according to grade level (third, fourth, fifth, sixth). Table 15 presents the results:

Table 15. One-Way ANOVA Results for Future Thinking According to Grade Level.

Dimension	Source of Variance	Sum of Squares	df	Mean Square	F-value	Sig.	Result
Future Problem-Solving	Between Groups	30.583	3	10.194	.192	.901	Not significant
	Within Groups	1915.017	46	53.195			
	Total	1945.600	49				
Future Forecasting	Between Groups	28.108	3	9.369	.203	.894	Not significant
	Within Groups	1664.267	46	46.230			
	Total	1692.375	49				
Future Planning	Between Groups	39.775	3	13.258	.304	.822	Not significant
	Within Groups	1569.000	46	43.583			
	Total	1608.775	49				
Future Imagination	Between Groups	55.450	3	18.483	.279	.840	Not significant
	Within Groups	2382.150	46	66.171			
	Total	2437.600	49				
Total Score	Between Groups	246.667	3	82.222	.416	.742	Not significant
	Within Groups	7109.733	46	197.493			
	Total	7356.400	49				

The results show no statistically significant differences in future thinking among students with visual impairments attributable to grade level.

Interpretation of Findings:

Future thinking appears to be shaped primarily by shared influences that outweigh the potential effects of gender or grade level. The specialized educational programs designed for students with visual impairments are typically implemented in a standardized manner, employing similar teaching strategies and comparable psychological and social support systems. Such uniformity contributes to a convergence of educational and developmental experiences across genders and grade levels. Moreover, the nature of visual impairment itself constitutes a dominant factor affecting cognitive processing

and information management, exerting an influence that surpasses age- or gender-related differences. Consequently, future thinking among these students tends to rely more heavily on common compensatory skills, the support provided by families and teachers, and the degree of interaction with the surrounding environment, rather than on gender-based or developmental distinctions. It is also important to note that future thinking is closely tied to higher-order cognitive processes such as planning, anticipation, and problem-solving. These processes tend to develop at relatively similar rates among students with visual impairments due to the limited range of experiential opportunities available to them compared with sighted peers. This restricted exposure reduces the

likelihood of observing substantial differences in future thinking across gender or grade groups.

These findings align with previous research:

- 1) Yassin (2018) reported no significant differences in future thinking based on gender or specialization [56].
- 2) Salloum (2024) [41] found no gender differences in positive thinking and self-awareness, supporting the current findings regarding future thinking.
- 3) Saud (2018) [44] also observed no significant differences between males and females in positive and negative thinking.

11.4. Variables of (Self-awareness and Psychological Empowerment) Contribute to Predicting Future Thinking Among Individuals with Visual Impairments

To answer this question, stepwise multiple regression analysis was conducted, and Table 16 presents the results.

Table 16. Stepwise Multiple Regression Analysis Predicting Future Thinking from Self-Awareness and Psychological Empowerment among Individuals with Visual Impairments.

Dependent Variable	Predictor Variables	r	r ²	Model r ²	F-value	b	SE	β	t-value	Constant
Future Thinking	Self-Awareness	0.202	0.041	0.011	0.789	0.157	0.131	0.193	1.19**	147.71
	Psychological Empowerment	—	—	—	—	0.053	0.131	0.065	0.404**	—

The table shows that the F-value assessing the ability of self-awareness and psychological empowerment to predict future thinking among individuals with visual impairments reached 0.789, which is not statistically significant at the 0.05 level. This indicates that the predictive capacity of these variables for future thinking is weak.

The partial correlation coefficient was 0.202, and the coefficient of determination (r^2) was 0.041, representing the proportion of variance explained when the variables entered the regression equation. This means that self-awareness and psychological empowerment together account for 4.1% of the variance in future thinking among individuals with visual impairments.

Accordingly, the prediction equation is:

Future Thinking = 147.71 + 0.157 (Self-Awareness) + 0.053 (Psychological Empowerment)

Based on these findings, self-awareness and psychological empowerment are weak predictors of future thinking among individuals with visual impairments.

Interpretation of Results

The results of the multiple regression analysis indicated that both self-awareness and psychological empowerment make only a modest contribution to predicting future thinking among individuals with visual impairments. This limited predictive power suggests that the relationships among these variables are not sufficiently strong to account for substantial variance in future thinking, implying that other, more influential factors may play a key role in shaping such thinking. The weak effect of self-awareness in predicting future thinking

may be attributed to the fact that its level among individuals with visual impairments remains generally moderate and tends to focus more on emotional aspects rather than reflective or strategic thinking processes. Moreover, reduced verbal communication may further constrain their ability to articulate future aspirations or to construct a clear self-concept of their future selves.

The findings also reveal that the relationships between self-awareness and psychological empowerment on the one hand, and between self-awareness and future thinking on the other, are weak and indirect. This suggests that future thinking among individuals with visual impairments is shaped by factors other than self-awareness and psychological empowerment—such as intrinsic motivation, family and social support, linguistic communication skills, and educational experience. Furthermore, the limited opportunities for exposure to real future-oriented situations, along with insufficient training in decision-making skills, have contributed to a more immediate and pragmatic form of future thinking that prioritizes near-term needs over developing long-range aspirations.

These results are consistent with the findings of Saud (2018) [44], who reported that positive and negative thinking were weak predictors of self-awareness despite significant correlations—consistent with the weak predictive relationships observed in the current study. Similarly, [11] found positive but not strongly predictive correlations between self-awareness and future perceptions.

However, the findings differ [56], who reported a statistically significant and stronger predictive contribution of self-awareness to future thinking.

12. Study Recommendations

In light of the findings, the study offers the following recommendations:

- 1) Develop specialized training programs aimed at enhancing self-awareness among individuals with visual impairments, focusing on practical and interactive skills such as self-esteem, emotional understanding, cognitive awareness, and behavioral regulation.
- 2) Integrate self-awareness skills into the curriculum of *Al-Noor* schools through simplified instructional units that match learners' linguistic and cognitive abilities.
- 3) Encourage educational institutions to adopt future-oriented student projects (e.g., career plans or community initiatives) that help visually impaired learners translate self-awareness into concrete planning behaviors.
- 4) Strengthen collaboration among schools, families, and community organizations to create an environment that supports future thinking through coordinated psychological and social support.

Suggested Future Research:

The study recommends conducting further research, including:

- 1) The effectiveness of a training program based on emotional intelligence skills in improving dimensions of self-awareness among individuals with visual impairments.
- 2) The effectiveness of educational drama or simulation techniques in enhancing self-awareness among visually impaired students in basic education.
- 3) The relationship between self-awareness and social interaction styles among visually impaired students in different educational environments (inclusive schools vs. specialized schools).
- 4) The effectiveness of a psychosocial intervention program to improve psychological empowerment among the visually impaired.

Abbreviations

Self.Awa	Self-Awareness
Psy. Emp.	Psychological Empowerment
F. Th.	Future Thinking
Vi. Imp.	Visual Impairment

Author Contributions

Ahmed Ghanem Ahmed Ali: Investigation, Writing – original draft, Writing – review & editing

Abd Alziz Abd Al Fattah Elfeky: Conceptualization, Formal Analysis, Methodology, Validation

Conflicts of Interest

The authors declare no conflicts of interest.

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