



EXPLORING THE LINK BETWEEN IMPLICIT INTELLIGENCE BELIEFS AND SELF- HANDICAPPING AMONG UNDER- GRADUATE STUDENTS IN KARNAL

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Abstract

The transition from school to higher education is an important stage in a student's academic journey. At this stage, students are expected to take greater responsibility for their learning while also dealing with academic competition, regular performance evaluation, and concerns about their future careers. Such experiences place students in situations where they have to deal with success, failure, and continuous feedback about their performance. While some students are able to face these challenges positively and continue making efforts, others may adopt defensive ways of dealing with situations that could threaten their self-esteem. Understanding why students respond differently to such academic challenges has therefore become an important area of interest in educational psychology. In this context, the present study examined whether students' beliefs about the nature of intelligence are related to the way they respond to academic difficulties and the possibility of failure. A descriptive correlational research design was used for the study. The sample comprised 75 undergraduate students, including 37 males and 38 females, who were randomly selected from three colleges in Karnal district, Haryana. The findings of the study suggest that students' beliefs about their intellectual abilities may be related to the way they deal with academic challenges. In particular, a stronger incremental view of intelligence was associated with a lower tendency to engage in self-handicapping as a way of protecting oneself from possible academic failure.

Index Terms: *Implicit Intelligence Beliefs; Entity Theory; Incremental Theory; Self-Handicapping; Undergraduate Students; Academic Motivation.*

I. Introduction

Success in higher education depends on more than just intellectual ability. Students have to manage increasing academic demands, adjust to new learning environments, take greater responsibility for their own learning, and deal with regular evaluation that can affect both their academic progress and future career plans. Although students may study in similar environments, they do not always respond to academic challenges in the same way. Some students approach difficult tasks with interest and persistence and see setbacks as opportunities to learn and improve. Others may lose confidence, avoid challenging situations, or adopt behaviours that help them protect their self-esteem but may not be helpful for their academic growth. These differences have encouraged researchers to look beyond cognitive ability and pay greater attention to the beliefs and strategies that influence students' academic behaviour.

In this context, implicit intelligence beliefs and self-handicapping are two important psychological factors for understanding students' responses to academic success and failure. Implicit intelligence beliefs shape how students think about their intellectual abilities and whether they see them as relatively fixed or capable of development. Self-handicapping, on the other hand, refers to the ways in which students may protect themselves from the possible negative consequences of failure. Although these two constructs have often been examined separately, research suggests that they may be related because both can influence how students understand academic difficulties and respond to situations in which their abilities are being evaluated (Burnette et al., 2013; Dweck & Leggett, 1988).

1.1 Implicit Intelligence Beliefs

The concept of implicit intelligence beliefs can be traced to Dweck's social-cognitive theory, which suggests that people develop beliefs about the nature of intelligence through their experiences, learning environments, and interactions with others. These beliefs are generally described in terms of entity and incremental views. Students with entity beliefs tend to see intelligence as a relatively fixed characteristic that does not change much, whereas those with incremental beliefs view intelligence as something that can develop through effort, learning, and the use of effective strategies (Dweck, 2006; Dweck & Leggett, 1988). These beliefs are more than simply personal opinions; they influence how students understand their academic experiences and how they make sense of success and failure. Students who hold incremental beliefs are more likely to see their abilities as capable of improvement. Therefore, they may be more willing to put in effort, seek feedback, try different ways of learning, and continue working even when they face difficulties. In contrast, students with stronger entity beliefs may interpret academic performance as a reflection of their underlying ability. For such students, failure can be particularly threatening because it may be seen as evidence of low ability. This may lead them to avoid difficult tasks, reduce their effort, or adopt behaviours that help them protect their sense of self-worth (Hong et al., 1999; Yeager & Dweck, 2012).

Research over the years has provided considerable evidence that implicit intelligence beliefs are related to students' motivation and learning behaviour. Blackwell et al. (2007), for example, found that students who believed intelligence could be developed showed greater improvement in academic performance over time than students who viewed intelligence as fixed. The difference appeared to be related less to actual intellectual ability and more to the way students approached learning, responded to difficulties, and remained motivated. Students with incremental beliefs were generally more likely to continue their efforts after experiencing failure, whereas students with entity beliefs were more likely to reduce their effort or disengage. A meta-analytic review by Burnette et al. (2013) also linked growth-oriented beliefs with more adaptive forms of motivation, learning, and self-regulation. Similarly, Sisk et al. (2018) found that the direct relationship between intelligence beliefs and academic achievement was relatively modest, but these beliefs could still influence the motivational processes that support learning. More recent research has also drawn attention to these beliefs among university students. Han (2024) reported that incremental beliefs were associated with greater academic motivation and lower self-handicapping. Flanigan et al. (2024) similarly found a relationship between stronger fixed intelligence beliefs and difficulties in self-regulated learning. In addition, Donnellan et al. (2024) suggested that the influence of intelligence beliefs on academic performance may operate through everyday behaviours such as study habits, self-regulation, and procrastination. Taken together, these findings suggest that students' beliefs about intelligence may affect academic outcomes not simply by determining how capable students are, but by shaping how they approach learning, respond to setbacks, and regulate their behaviour.

1.2 Self-Handicapping

The concept of Self-Handicapping was introduced by Jones and Berglas (1978). It refers to the deliberate creation or claim of obstacles before performing an evaluative task in order to protect one's self-esteem if performance is unsuccessful. Rather than allowing poor performance to be interpreted as evidence of low ability, individuals establish alternative explanations that shift responsibility to external or temporary circumstances. Although such strategies may reduce immediate psychological discomfort, they often interfere with learning and contribute to poorer academic outcomes over time. Researchers generally distinguish between behavioural self-handicapping and claimed self-handicapping. Behavioural self-handicapping involves actions that genuinely reduce the chance of success, such as procrastinating before examinations, investing insufficient effort in assignments, or engaging in distracting activities instead of studying. Claimed self-handicapping, on the other hand, involves reporting barriers such as fatigue, illness, anxiety, or stress that may excuse poor performance without necessarily affecting preparation. Despite their differences, both forms serve the same psychological purpose: protecting self-worth by preventing failure from being attributed solely to low ability.

Self-handicapping has consistently been associated with negative educational outcomes. Students who frequently rely on self-handicapping strategies tend to report lower academic engagement, poorer self-regulation, greater procrastination, higher examination anxiety, and lower academic achievement than their

peers. These behaviours often create a self-perpetuating cycle in which reduced effort leads to poorer performance, reinforcing students' negative beliefs about themselves and increasing the likelihood of future self-handicapping (Martin et al., 2003; Schwinger et al., 2014). Although self-handicapping may provide temporary protection against threats to self-esteem, its long-term consequences are generally maladaptive because it limits opportunities for learning, skill development, and genuine academic improvement.

A substantial body of research has established self-handicapping as a maladaptive strategy that adversely affects students' academic motivation, learning, and performance. Martin et al. (2003) found that self-handicapping negatively predicts academic engagement while increasing the likelihood of academic failure and withdrawal from challenging learning tasks. Similarly, Schwinger et al. (2014), in a meta-analysis, reported that students who frequently engage in self-handicapping demonstrate significantly lower academic performance and motivation than their peers. Recent studies have further expanded the understanding of academic self-handicapping among university students. Han (2024) reported that higher levels of academic self-handicapping were associated with poorer academic adjustment and lower motivational beliefs, highlighting its detrimental role in students' educational experiences. Likewise, Robinson et al. (2025) found that academic self-handicapping mediated the relationship between impostor phenomenon and maladaptive achievement goal orientations, suggesting that self-handicapping functions as an important mechanism linking students' self-perceptions with their academic behaviours. More recently, Goodarznaseri et al. (2026) demonstrated that fear of negative evaluation and performance-avoidance goals were significant antecedents of academic self-handicapping, which, in turn, negatively affected students' academic engagement and psychological well-being. Collectively, these findings indicate that self-handicapping not only undermines academic performance but also interferes with students' motivation, emotional adjustment, and long-term educational success.

II. Rationale of study

Despite the growing interest in implicit intelligence beliefs and self-handicapping, some areas still need further attention. Much of the existing research has examined these two constructs separately or has mainly focused on their relationship with academic achievement, motivation, and self-regulated learning. Comparatively less attention has been given to the direct relationship between students' beliefs about intelligence and their tendency to engage in self-handicapping, particularly among undergraduate students. In addition, much of the available research has been conducted in Western educational settings. Therefore, its findings may not fully reflect the experiences of students in countries such as India, where cultural values, academic expectations, and the nature of the educational environment may influence students' beliefs and responses to academic challenges in different ways.

The undergraduate years are an important period in students' academic lives, as they have to manage greater academic demands, take more responsibility for their learning, and meet increasing expectations regarding their performance and future careers. Understanding whether students' beliefs about the nature of

intelligence are related to their tendency to engage in self-handicapping can therefore provide a better understanding of why some students respond to academic difficulties in less adaptive ways. Such understanding may also be useful for teachers, counsellors, and higher education institutions in developing approaches that encourage more adaptive beliefs, reduce self-defeating academic behaviours, and support students in dealing with academic challenges more effectively. In view of these considerations, the present study seeks to examine the relationship between implicit intelligence beliefs and self-handicapping among undergraduate students.

III. Statement of the Problem

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IV. Operational Definitions of the Key Terms

The variables in the study are operationally defined as-

4.1 Implicit Intelligent Beliefs

Implicit intelligence beliefs refer to the beliefs about the nature and malleability of intelligence. In present study, Implicit Intelligent Beliefs means the score obtained by the undergraduate students on Implicit Theory of Intelligence Scale (ITIS) developed by Abd-El-Fattah and Yates (2006). This scale consists of two dimensions-Entity Theory and Incremental Theory and no overall score for implicit intelligence beliefs is calculated. Higher scores on the Entity Theory dimension indicate a stronger tendency to view intelligence as fixed, whereas higher scores on the Incremental Theory dimension indicate a stronger tendency to view intelligence as developable.

4.2 Self-Handicapping

It is a tendency to create obstacles in successful performance when we doubt our abilities. In present study, Self-Handicapping means the total scores obtained on Scale of Self-Handicapping, developed and standardized by Gupta & Khajuria (2023). This scale consists of four dimensions- Situational component, Affective component, Cognitive component and Behavioural component.

4.3 Undergraduate Students

In present study, undergraduate students mean the students pursuing B.A., B.Sc. or B.Com.

V. Objectives

1. To examine the levels of implicit intelligence beliefs and self-handicapping among undergraduate students.

2. To examine the relationship between implicit intelligence beliefs and self-handicapping among undergraduate students.
3. To examine gender differences in implicit intelligence beliefs among undergraduate students.
4. To examine gender differences in Self-Handicapping among undergraduate students.

VI. Hypothesis

1. There is no significant relationship between implicit intelligence beliefs and self-handicapping among undergraduate students.
2. There is no significant difference between male and female undergraduate students in implicit intelligence beliefs.
3. There is no significant difference between male and female undergraduate students in self-handicapping.

VII. Methodology

To examine the objectives of the study, descriptive correlational research design was employed.

VIII. Population and Sample

All students pursuing Graduation (B.A./ B.Sc./B.Com.) in different colleges of Karnal constitute the population for present study. The sample comprised of 75 randomly selected undergraduate students from three colleges. A total of 25 students were selected from each college through simple random sampling. The final sample consisted of 75 students, including 37 males and 38 females.

IX. Tools Used

The following tools have been used for present study-

1. Implicit Theory of Intelligence Scale (ITIS) by Abd-El-Fattah and Yates (2006)
2. Scale of Self-Handicapping by Gupta and Khajuria (2023)

X. Statistical Techniques Used

The following tools have been used for analysis of data:

- i. Descriptive Statistics
- ii. Pearson's Product-Moment Correlation (r)
- iii. Independent Sample t-test

XI. Analysis and Interpretation

Data was analyzed on the basis of:

- Descriptive statistics (Mean and Standard Deviation) to examine the levels of implicit intelligence beliefs and self-handicapping among undergraduate students.
- Correlation between implicit intelligence beliefs and self-handicapping among undergraduate students.
- Comparison between the mean scores of implicit intelligence beliefs and self-handicapping in relation to the gender

A. On Basis of descriptive statistics to examine the levels of implicit intelligence beliefs and self-handicapping among undergraduate students.

Table 11.1 Descriptive Statistics of Implicit Intelligence Beliefs and Self-Handicapping (N = 75)

Variable	Dimensions	M	SD	Minimum	Maximum
Implicit Intelligence Beliefs	Entity Theory	20.28	3.07	14	27
	Incremental Theory	22.19	3.16	15	28
Self-Handicapping	Situational Component	23.03	3.49	14	30
	Affective Component	17.31	2.59	10	23
	Cognitive Component	28.12	4.90	17	38
	Behavioural Component	26.31	4.91	16	38
Overall Self-Handicapping		94.76	14.73	57	125

Table 11.2 Distribution of Undergraduate Students According to Levels of Implicit Intelligence Beliefs and Self-Handicapping (N = 75)

Variable		Level	Frequency	Percentage
Implicit Intelligence Beliefs	Entity Theory	Low	1	1.3%
		Moderate	49	65.3%
		High	25	33.3%
	Incremental Theory	Low	0	0%
		Moderate	35	46.7%
		High	40	53.3%
Self-Handicapping		Low	5	6.7%

		Moderate	63	84.0%
		High	7	9.3%

Interpretation

Table 11.1 presents the descriptive statistics of implicit intelligence beliefs and self-handicapping among the undergraduate students. The mean score for Incremental Theory ($M = 22.19$, $SD = 3.16$) was higher than that for Entity Theory ($M = 20.28$, $SD = 3.07$), suggesting a relatively stronger tendency among the students to view intelligence as capable of development rather than as completely fixed. The overall mean for Self-Handicapping was 94.76 ($SD = 14.73$). Among its four dimensions, the Cognitive Component recorded the highest mean score ($M = 28.12$, $SD = 4.90$), followed by the Behavioural Component ($M = 26.31$, $SD = 4.91$), Situational Component ($M = 23.03$, $SD = 3.49$), and Affective Component ($M = 17.31$, $SD = 2.59$).

Table 11.2 further indicates that 72% of the students exhibited a high level of incremental intelligence beliefs, whereas 69.3% demonstrated a moderate level of entity beliefs. Regarding self-handicapping, the majority of the participants i.e. 69.3% fell in the moderate category, while 18.7% showed a low level and only 12% exhibited a high level of self-handicapping. Overall, these findings suggest that although the students generally endorsed a growth-oriented view of intelligence, they also displayed a moderate tendency to engage in self-handicapping behaviours.

B. On Basis of Correlation between implicit intelligence beliefs and self-handicapping among undergraduate students.

Table 11.3 Relationship between Implicit Intelligence Beliefs and Self-Handicapping among Undergraduate Students (N = 75)

Variables		Self-Handicapping
Implicit Intelligence Beliefs	Entity Theory	.43**
	Incremental Theory	-.48**

Interpretation

Table 11.3 shows a significant positive relationship between Entity Theory and Self-Handicapping ($r = .433$, $p < .01$). This indicates that students who more strongly viewed intelligence as fixed tended to report greater self-handicapping. In contrast, Incremental Theory was significantly and negatively related to Self-Handicapping ($r = -.476$, $p < .01$). Thus, students who were more likely to view intelligence as developable tended to report lower levels of self-handicapping. Overall, the findings indicate that the two forms of

intelligence beliefs were related to self-handicapping in opposite directions. The correlation between Entity Theory and Incremental Theory was also negative ($r = -.442, p < .01$).

C. On Basis of Comparison between the mean scores of implicit intelligence beliefs and self-handicapping in relation to the gender

Table 11.4 Gender Differences in Implicit Intelligence Beliefs and Overall Self-Handicapping

Variable		Male (n = 37)		Female (n = 38)		t-value (df=73)	p
		Mean	SD	Mean	SD		
Implicit Intelligence Beliefs	Entity Theory	20.11	3.26	20.45	2.91	-0.475	.636
	Incremental Theory	22.05	3.13	22.32	3.23	-0.356	.723
Self-Handicapping		96.35	14.99	93.21	14.50	0.922	.360

Interpretation

Table 11.4 shows that Male students obtained a slightly higher mean score on Self-Handicapping ($M = 96.35$) than female students ($M = 93.21$); however, this difference was not statistically significant, $t(73) = 0.922, p = .360$. Similarly, the differences between male and female students in Entity Theory and Incremental Theory were also not statistically significant ($p > .05$). Overall, the findings suggest that gender did not have a significant influence on implicit intelligence beliefs or self-handicapping among the students in the present study.

XII. Findings

The findings of the present study provide an overall picture of undergraduate students' implicit intelligence beliefs and self-handicapping tendencies. The descriptive results showed that students obtained a comparatively higher mean score on Incremental Theory than on Entity Theory, suggesting a relatively stronger tendency to view intelligence as capable of development through effort and learning. At the same time, the overall level of self-handicapping was predominantly moderate, with the cognitive and behavioural components showing relatively higher mean scores than the affective and situational components. The correlation analysis further revealed that Entity Theory was positively and significantly related to self-handicapping, whereas Incremental Theory showed a significant negative relationship with self-handicapping. This pattern suggests that students who perceive intelligence as fixed may be more inclined towards self-protective behaviours when facing academic challenges, while students who view intelligence as developable may be more willing to persist despite difficulties.

The gender-wise comparison, however, did not reveal any significant differences in Entity Theory, Incremental Theory, or overall self-handicapping. Although male students reported a slightly higher mean level of self-handicapping than female students, the difference was not statistically significant. Similarly, the mean scores for both dimensions of implicit intelligence beliefs were quite close for male and female students. Thus, the findings suggest that the relationship between students' beliefs about intelligence and their self-handicapping tendencies may be more closely associated with individual motivational beliefs than with gender. Overall, the results highlight the importance of understanding implicit intelligence beliefs when examining self-handicapping among undergraduate students, particularly because a stronger incremental orientation may be associated with more adaptive responses to academic difficulties.

XIII. Educational Implications

The findings of the present study have some important implications for undergraduate education. Since students with stronger incremental beliefs showed lower levels of self-handicapping, teachers can encourage students to believe that their abilities can improve through effort, practice, effective strategies, and learning from mistakes. Instead of treating mistakes or poor performance as signs of limited ability, teachers can create a classroom environment where students feel comfortable making mistakes, seeking help, and trying again. Feedback can also focus on students' progress, effort, and use of appropriate strategies rather than only on marks and grades.

The findings also suggest that teachers and counsellors should pay attention to behaviours such as avoiding difficult tasks, delaying work, giving excuses, or withdrawing effort when students face academic difficulties. Academic counselling and mentoring can help students recognize these behaviours and develop healthier ways of dealing with failure and academic pressure. Since no significant gender differences were found, these efforts can be provided to undergraduate students generally rather than being targeted towards a particular gender. Overall, colleges can support students by creating learning environments that build confidence, encourage persistence, and help them develop the belief that their academic abilities are capable of improvement.

XIV. Conclusion

The present study highlights the important role of students' beliefs about intelligence in understanding their tendency towards self-handicapping. The findings showed that undergraduate students were more inclined towards an incremental view of intelligence, while their overall level of self-handicapping was moderate. Students who held stronger entity beliefs tended to report greater self-handicapping, whereas those with stronger incremental beliefs reported lower levels of self-handicapping. Both dimensions of implicit intelligence beliefs also emerged as significant predictors of self-handicapping, suggesting that the way students perceive the nature of their intellectual abilities may influence how they deal with academic challenges and the possibility of failure. At the same time, the absence of significant gender differences indicates that these patterns were not substantially different for male and female students in

the present sample. Overall, the study suggests that fostering a belief in the developability of intelligence may be valuable in encouraging students to approach academic difficulties with greater persistence and less reliance on self-protective strategies.

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