

## Analyzing the Mediating effect of parental Behavior: A way forward to achieve sustainable education using the TPB approach

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### ABSTRACT

This study explores the influence of parental behavior on students' academic performance using TPB. The TPB background suggests that ATD, SNM (perceived social pressure), and PBC (belief in one's ability) influence individuals' intentions and behaviors. The study employed a survey method, with questionnaires distributed through various online platforms to students. A total of 206 valid responses were collected and analyzed using JMP Pro and structural equation modeling (SEM). The study found that SNM based on TPB positively related influence PBC ( $p > 0.001$ ) of the students' academic performance. The study interprets that the parents' career advice helps the students to feel independent which eventually to learn better. The study found that PBC based on TPB positive related influence BI ( $p > 0.0001$ ) of the students' academic performance. The study interprets that students' family income shows a positive impact on the intention of students to study when no one is watching. Also, it impacts their intention to acquire new skills through certifications.

**Keywords:** Sustainable education, Parental behavior, Theory of planned behaviour, Academic Performance, SEM.

### INTRODUCTION

Parental teaching behaviors during mealtime interactions with two-year-old children across diverse cultures (Brazil, Ecuador, Argentina, Germany, Japan). Analyzing 8520 teaching events, six common behaviors (prompts, abstract communication, demonstrations, choices, negative feedback) were identified, with varying frequencies across cultures. Rural parents emphasized prompts, while urban parents favored abstract communication and demonstrations, revealing cultural nuances in early childhood teaching practices (M.Koster et al, 2022). Among 513 Italian students, the behavior of parents related to career of students on the adaptability of the same, the issues in making decisions on career and satisfaction of life impacted by parents' involvement. The findings show that parental support has a beneficial direct and indirect impact on these outcomes through the mediation of occupational flexibility. However, Career decision-making challenges are positively correlated with parental meddling and low involvement. The findings underscore the crucial the importance of professional flexibility and family support in shaping students' career outcomes (A Parola et al, 2022). the interplay between child genotype, specifically dopaminergic polygenic composite, and maternal negative reactivity on the executive function of 135 36-month-old children. Results suggest a diathesis- stress interaction, revealing that children with higher polygenic composite scores exhibit poorer self-control when exposed to heightened maternal negative reactivity. The findings highlight the potential vulnerability of certain genotypes to parental behavior's negative impact on child outcomes (DM Vrantisidis et al, 2023). The strong emotion of fear may have a profound effect on how people behave. It might spur us to action to avert danger, but it can also result in avoidance and retreat. Fear can influence how pupils learn in the setting of education (Jackson, 2010). Students could be wary of their professors, fellow students, or other adults in power. Their anxiety may lead to individuals to avoiding speaking up in class, posing questions, or taking chances. It may make children prone to peer pressure (Immerwahr, 2000) and less motivated to push themselves intellectually. Understanding the factors that affect learning behavior of a student (Beltrán-Velasco et al, 2021) is critical in current educational environment, which keeps changing rapidly. The part that anxiety from authority plays in influencing academic experiences of a student is one such facet that has drawn attention. ATDs, beliefs, and subsequent behaviors of an individual can all be significantly impacted by the feeling of fear. The authority, like a teacher, classmate, or any authoritative figure, can have a substantial impact on learning behavior of a student in the setting of education (Turner et al, 2009). When a student is feeling afraid of someone, it can put pupil under psychological strain that has an impact on their ATDs, motivation, and overall learning results (Ajzen, 1991). When pupils are afraid in a classroom, it can cause a variety of reactions, such as worry, tension, and apprehension about class happenings (Kosten et al, 2013). The dismay of being judged, condemned, or mocked by others is one example of the many possible reasons of such a phobia. Motivation of a student to involve fully in the learning process might be hindered by the fear of someone disapproving or giving them a poor evaluation. The TPB gives a helpful understanding for comprehending the intricacies of dismay of someone and its effects on learning behavior of a student (Ajzen, 1991). TPB is a famous hypothesis that investigates the

association between intentions and actions of people. TPB provides insights into how anxiety of authority figures might affect students' learning intentions and behaviors by looking at the factors of ATD, SNM and PBC (Ajzen, 2002).

Fear of others has the probability to impact on ATDs of a student, regarding studying in a classroom setting. When students feel threatened or dread disapproving outcomes, their ATDs toward learning may change or become defensive (Stephan et al, 2015), leading to a drop in motivation, engagement, or even general academic performance. Additionally, students' SNM—the supposed societal pressure to comply to actions and expectations—can be impacted by their anxiety or rejection from any authority figure. Even if it conflicts with their own interests or preferences, students may feel distressed to live up to others' expectations (Ajzen, 1991). Awareness is how anxiety of authority figures disturbs learning behavior of students; it requires an awareness of PBC, another TPB component (Figueroa et al, 2013). When children feel dread, they may not feel in control of their academic performance. In the face of possible unfavorable outcomes, they might feel powerless, which can lower their confidence and self-efficacy (Zimmerman et al, 1981). As a result, children's capacity to take initiative to achieve their learning objectives may be hampered. This study seeks to examine the role anxiety from authority plays in influencing learning behavior of students by adopting a TPB approach (Ajzen, 1991). The goal of the study is to understand how anxiety from authority figures might impact learning intentions of student and subsequent actions by looking at the aspects of ATD, SNM and PBC. Findings from the study may guide educational strategies and interventions that try to address and lessen the detrimental effects of fear on educational experiences of students (Jackson, 2010).

## **2. LITERATURE REVIEW**

Operant conditioning theory suggests that reinforcement, such as reward or praise, increases the likelihood of a particular behavior being repeated. Praise can be an effective motivator because it allows teachers to selectively encourage specific behaviors (Aggarwal et al, 2010). However, rewards should be used sparingly and contingently on performance to avoid negative consequences. Theories regarding inspiration must consider the learners' age as well as the environment in which they learn language. Dörnyei (2005) Theory of MSS only gained partial assistance due to the inability to pinpoint the "ought to self" factor. Nonetheless, it was established that the concept of the "ideal self" existed. For every age group under investigation, "the ideal self" was a significant factor in motivating language acquisition. Parental involvement is influenced by language and teacher's ATDs. Academic language can be utilized in schools, and school personnel may not know how to communicate with parents who speak a different language (Deal et al, 2016). Parents lack clarity regarding academic curriculum and teachers must explain exactly what is expected from parents. Therefore, teachers' ATDs have a high influence on the level of involvement of parents. Parental involvement is influenced by socioeconomic factors, parent's educational background, income level, family structure and cultural differences. Higher socioeconomic class, educational attainment, and income levels are associated with more parental involvement in their children's schooling. (Pena et al, 2016). Siblings have an impact on learning confidence as well as social skills. They also have an impact on educational inclinations, job aspirations, and perceptions of school success and efficiency (Novozámská et al, 2015). Siblings can also have a big impact on formal schooling. An individual's educational and career path is significantly influenced by their primary socialization. Culture of an Institute has great influence on academic performance, meaning stronger culture leads to high-level performance and vice versa (Zaid et al, 2023). The favorable correlation is explained as institute plays an important role in creating a culture of society through their influence on basic assumptions, values, and beliefs of people. Positive reinforcement affects students' academic performance. It can be used to decrease students' deviance behavior (Salvy et al, 2004). When paired with another reinforcement or punishment, they work better than when they work alone. Reinforcement must be used to improve academic behavior.

## **3. THEORITICAL FRAMEWORK & HYPOTHESIS DEVELOPMENT**

Human behavior is explained and predicted by the TPB (Ajzen, 1991). TPB was devised by Icek Ajzen in the late 1980s and holds that ATD, SNM and PBC all influence people's behavior. These three elements have a major role in shaping a person's goals and actions that follow. We will examine each dimension in depth and consider how it relates to human behavior in this article.

### **3.1. Attitude (ATD)**

An individual's ATD is their overall assessment of how they have handled a specific conduct (Ajzen, 2002). According to psychologists, ATDs have social qualities and are progressively produced by conversations with other people and their surroundings (Al-Mamary et al, 2022).

Although ATDs are a major component determining BIs, they also interact with PBC and SNM. However, the precise processes involved differ based on the study's subject and setting (Ajzen, 2002). PBC and SNM may be differentially influenced by ATDs, according to the TPB conceptual structure. Furthermore, attitudinal relationship modification can strengthen the factor's explanatory power.

### 3.2. Subjective Norms (SNM)

TPB has been criticized for not considering how factors (ATD, SNM and PBC) interact with each other. This interaction was studied further as following. Effect of ATD and PBC & Effect of SNM and PBC on intention. PBC moderated the effects of ATD and SNM on intention. It can be derived that the stronger a person's PBC, the stronger the relationship between ATD and intention. Also, the weaker the relationship between SNM and intention. This conclusion suggests that TPB model should be modified to include interaction effects (Ajzen, 2002).

### 3.3 Perceived Behavioural Control (PBC)

The moderation of PBC in TPB. TPB is widely used to understand and predict human behavior, as BIs are the strongest predictors of behavior. Intentions are influenced by three main factors:

#### ATD Towards

the behavior. SNM (perceived social pressure to perform or avoid a behavior). PBC (one's belief about the ease or difficulty of performing a behavior). Eagly and Chaiken (1993) argue that PBC may moderate the effects of ATD and SNM on intentions. The strength of the relationship between ATD, SNM and intentions may depend on the level of PBC (La Barbera et al, 2020). Other researchers (Yzer, 2007) have found less support for the moderation of PBC as support against PBC moderating ATD and SNM is not strong enough. Maxwell (2003) argued that the small effect of PBC on intentions should not be overlooked, as these effects can be critically important in certain situations. In conclusion, more research is needed to clarify the role of PBC in TPB. Future studies should focus on developing better methods for detecting interactions and identifying moderator variables that can explain the variation in PBC and other TPB factors.

### 3.4. Behavioral Intention (BI)

The TRA is a social psychological theory aimed to predict and explain volitional behavior. It assumes that an individual's intention to carry out an action determines that action immediately. (La Barbera et al, 2020). Intentions are influenced by two factors: ATDs towards the behavior and SNM. The TRA is used to explain a range of behaviors, including voting, smoking, and exercise. The TRA has been widely supported by researchers as it has a few strengths like, it assumes that individuals act sensibly, considering the facts at hand and the effects of their choices. The theory is parsimonious, with only two determinants of intentions. The TRA has the following limitations. It does not consider all the variables that can impact intentions like the role of emotions, habits, and impulsivity. The theory is only applicable to volitional behaviors (behaviors that people can easily perform). The concept does not apply to behaviors over which people have little to no control; like involuntary bodily functions and behaviors dictated by situational factors.

## 4. HYPOTHESIS DEVELOPMENT

ATDs and social norms within these theories are crucial interpreters of intentions, reflecting the influence of parents' actions and values. The relationship between ATDs and SNM underscores the organized role of personal beliefs and influence in shaping BIs. Understanding parents' ATDs and the perceived social norms they carry is essential to predict and influence their children's intentions towards specific behaviors. ATD and SNM are key concepts in theory of planned behavior. ATD discusses an individual's evaluation of behavior (Cristea et al. 2016). SNM reflects an individual's insight of social pressure. A favorable association between ATD and SNM recommends that individuals with favorable ATDs towards a behavior are likely to perceive social support for engaging in such behavior. This increases their motivation to carry out the action.

H1: There is a favorable correlation between ATD and SNM

The influence of parental behavior on individuals' disposition towards academic performance, focusing on personal ATD and SNM. ATD echoes one's belief about engaging in academic performance, shaped by parents' actions and values. SNM measures perceived support from close ones, primarily predisposed by parental behaviors. A positive parental ATD towards undertaking creation and supportive SNM contribute to a stronger inclination towards academic performance, highlighting the pivotal role of parents in shaping individuals' career goals. A favorable association between SNM and PBC advocates that individuals who perceive social backing for a behavior are highly likely to believe in their ability to execute that behavior (Dinc et al, 2016). This, in turn, increases their emotional motivation to carry out the required actions.

H2: There is a favorable correlation between SNM and PBC

A positive correlation between PBC and BI recommends that individuals with stronger PBC are highly likely to have a strong intention to engage in a behavior. This is because their drive to engage in the action increases when they feel capable of performing it. (Porter et al, 2023).

H3: There is a favorable correlation between PBC and BI

A positive correlation between ATD and PBC recommends that individuals with stronger ATDs are highly likely to have

strong PBC (Dinc et al, 2016). This will strengthen their overall ATD to engage in the behavior.

H4: There is a favorable correlation between ATD and PBC

A positive correlation between SNM and BI recommends that individuals with stronger SNM are highly likely to have a strong BI (Park et al, 2000). This will strengthen their BI to engage in the behavior.

H5: There is a favorable correlation between SNM and BI

A positive correlation between ATD and BI recommends that individuals with favorable ATDs towards a behavior are likely to intend to perform that behavior (Ajzen et al, 2018). This relationship is validated by empirical research across many domains.

H6: There is a favorable correlation between ATD and BI

The implication of positive correlation between ATD and LO recommends that individuals with positive ATD towards a subject or learning activity are more likely to achieve better LOs (Kara et al, 2009).

H7: There is a favorable correlation between ATD and LO

A positive correlation between SNM and LO recommends that individuals who perceive strong

social support for academic pursuits are highly likely to achieve a better LO (Legault et al, 2006).

H8: There is a favorable correlation between SNM and LO

A positive correlation between PBC and LO (Phipps et al, 2013) recommends that individuals with a stronger belief in their ability to learn are highly likely to achieve better LOs.

H9: There is a favorable correlation between PBC and LO

A positive correlation between BI and LO (Wigfield et al, 2023) recommends that students who have a strong intention to engage in learning are highly likely to achieve better LOs.

H10: There is a favorable correlation between BI and LO

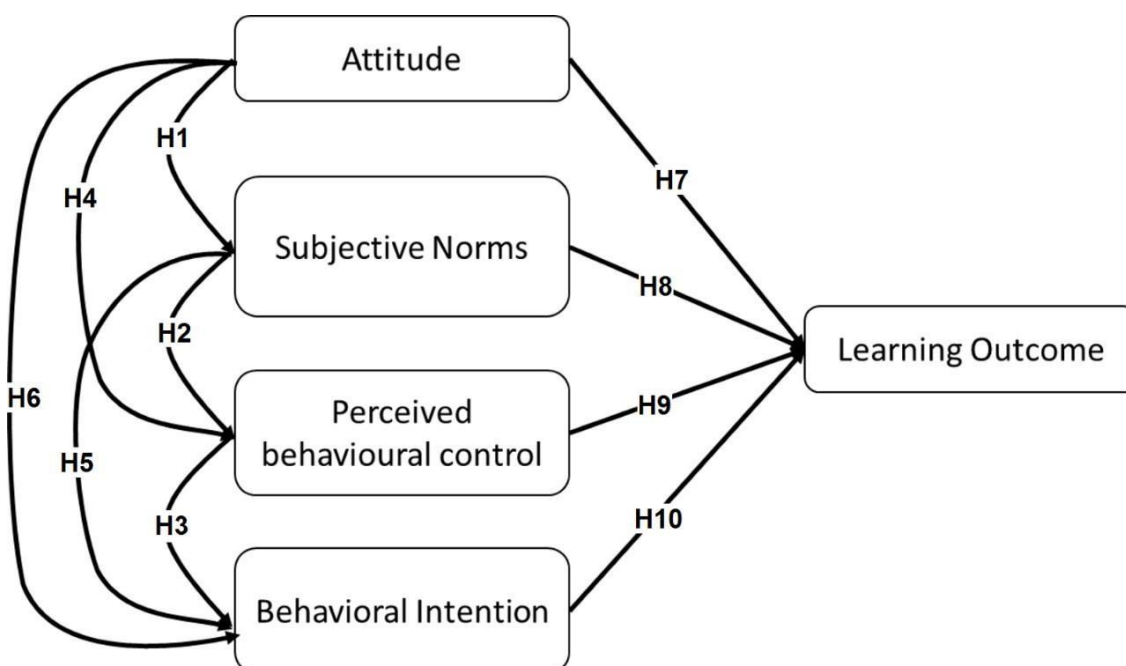


Figure 1: Hypothesis formulation flowchart

## 5. METHODOLOGY

The questionnaire approach has more external validity, greater practicality, and cheaper data collecting costs (Ramsey et al., 2005). A well-designed questionnaire may save money on collecting costs by being brief and easy to complete. In addition, questionnaires have the capacity to gather a lot of data quickly, which lowers the cost of data gathering.

SNM	SN1. My parents' career advice impacted my learning behavior SN2. The teacher's ATD inspired me to acquire the subject knowledge SN3. The culture of the institution allowed me to show my talent and creative work SN4. My siblings motivated me to perform academically	Watts et al (2001a) The Gatsby Foundation (2014)
PBC	PBC1. I think I'm an independent learner. I can learn better, when I feel independent PBC2. I think my parents are not aware of the curriculum of the institution PBC3. My parents' think that education is the responsibility of institution PBC4. I am worried about my family income which forces me to study well	Kristin D. Conklin (1998) John et al (2000)
BI	BI1. I intent to study when no one is watching BI2. I intent to attend my classes sincerely BI3. I intend to acquire new skills through certification BI4. I intend to be friends with career-oriented students	Mao-Ying et al (2021) Liz C. Wang et al (2016)

LO	LO1. I feel that my parents' involvement in the education inspired me to acquire new knowledge and skills LO2. My parents' frequent interaction motivated me to develop the skill set required for my career LO3. My parents helped me to choose the right career LO4. My parents motivated me to improve my academic performance	Komararaju et al(2010) Hynds et al (2010)
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The poll was created and carried out between October 25, 2023, and November 30, 2023, using a sample of participants chosen from various program participants. A total of 260 surveys were disseminated using links or QR codes on the well-known social media app WhatsApp. We eventually collected 206 genuine matching questionnaire sample data, with a valid answer rate of 90%, after matching and sorting, eliminating invalid questionnaires. In order to obtain as many accurate and legitimate answers as possible, the participants were assured that their personal privacy and security would be adequately protected, and the questionnaires were to be completed anonymously.

The data was collected using a convenience sampling method. Convenience sampling is frequently employed in research, especially in clinical and qualitative studies, due to its simplicity, cost-effectiveness, and efficiency. Participants in this non-probability sampling technique are chosen according to their availability in certain places. (SJ Stratton, 2021). Analytical work on data is done using JMP Pro and SEM in JMP Pro. It is under multivariate section.

Factors	Items	Source
ATD	A1. My parents feel uneasy to communicate with the faculty due to the language barrier. A2. My parents' positive reinforcement helped me to focus better on my studies A3. I think rewards or punishment from parents affected my learning intention A4. My learning intention kept changing with age	Ahmad et al(2021) Novitasari et al(2022)

*Table 1: Questions as per factors*

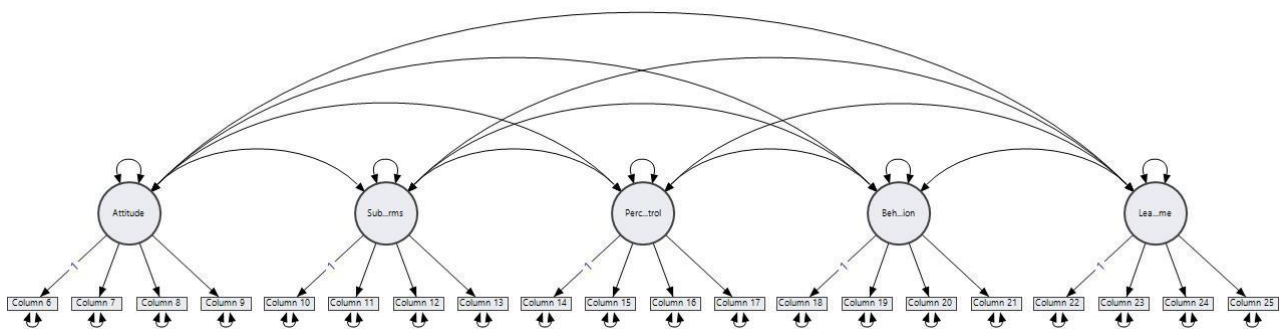


Figure 2: SEM Model

## 6. RESULTS AND DISCUSSION

Total (N = 206)		
Gender		
Male	115	55.8%
Female	91	44.2%
Age		
15-20	17	8.3%
20-25	166	80.6%
25-30	23	11.2%
Course		
High School	5	2.4%
Undergraduate	42	20.4%
Postgraduate	158	76.7%
Doctoral	1	0.5%
Nature of Institution		
Government	37	18%
Private	169	82%

Table 2: Demographic variables

The demographic data is survey participants (N = 206), revealing a diversified and inclusive sample. The research had a very equal gender distribution., with 55.8% male and 44.2% female participants. This gender parity reflects a conscious effort to ensure a fair and inclusive representation of both sexes in the survey. The age distribution showcases a broad spectrum, with the majority falling within the 20-25 age range (80.6%), demonstrating the inclusion of a significant segment of young adults. The participants' educational backgrounds vary widely, with 76.7% enrolled in postgraduate courses, indicating a focus on capturing insights from individuals pursuing advanced studies. Notably, the inclusion of participants from high school (2.4%) to doctoral level (0.5%) illustrates a commitment to representing students across different educational levels. The data also encompasses a mix of institutional affiliations, with 82% from private institutions and 18% from government institutions, emphasizing a diverse participant pool. This comprehensive approach to participant selection, encompassing

different educational levels, age groups, and institutional types, strengthens the generalizability of the survey findings and promotes gender equality, contributing to a well-rounded and representative dataset. Previous studies by Hair et al. (2017) have validated the use of JMP Pro- SEM in such cases. Since the JMP Pro-SEM technique enables the inclusion of formative measures, which are helpful for understanding the link between a concept and its observable effects, it was used to produce important estimates. (Krishnan et al, 2023)

## 6.1 Evaluation of the research model and its findings

The hypotheses were examined using JMP Pro through Figure 1 depicted the SEM Model approach and its findings. The specific coefficient results are shown in Figure 2.

In the results shown in Figure 1, ATD is not related to SNM ( $\beta = 0.801$ ,  $p > 0.1$ ), PBC ( $\beta = 0.887$ ,  $p < 0.01$ ), BI ( $\beta = 0.648$ ,  $p < 0.01$ ) and LO ( $\beta = 0.451$ ,  $p > 0.1$ ).

PBC ( $\beta = 0.52$ ,  $p > 0.001$ ), BI ( $\beta = 0.531$ ,  $p < 0.0001$ ) and LO ( $\beta = 0.471$ ,  $p > 0.001$ ) are positively related to SNM.

BI ( $\beta = 0.505$ ,  $p > 0.0001$ ) and LO ( $\beta = 0.772$ ,  $p < 0.0001$ ) are positively related to PBC.

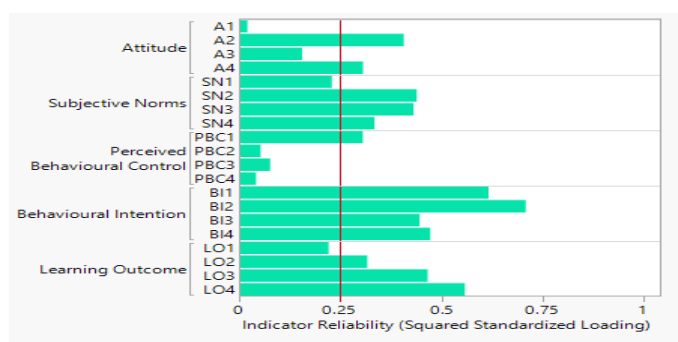
LO is positively related to BI ( $\beta = 0.459$ ,  $p < 0.0001$ ). So, H2, H3, H5, H8, H9, and H10 are validated and H1, H4, H6, and H7 are rejected.

Covariances	Estimate	Std Error	Wald Z	Prob> Z
ATD↔SNM	0.0899064	0.0550371	1.6335586	0.1024
ATD↔PBC	0.0958679	0.0580944	1.6502106	0.0989
ATD↔BI	0.0995216	0.0577606	1.7230004	0.0849
ATD↔LO	0.0448009	0.0288638	1.5521484	0.1206
SNM↔PBC	0.1702967	0.0552712	3.0811086	0.0021
SNM↔BI	0.2443426	0.0598854	4.0801691	<0.0001
SNM↔LO	0.13978	0.0426345	3.2785627	0.001
PBC↔BI	0.2261495	0.0614209	3.681966	0.0002
PBC↔LO	0.2231936	0.054298	4.1105324	<0.0001
BI↔LO	0.186578	0.0472011	3.9528316	<0.0001

Table 3: Parameters Estimates

The indicator reliability (Squared standardized loading) corresponds to each Latent variable is given in Figure 3.

Figure 3: Indicator Reliability (Squared Standardized Loading)





Indicator Reliability		
Latent Variable	Manifest Variable	Indicator Reliability
ATT	A1	0.0207
ATT	A2	0.407
ATT	A3	0.1559
ATT	A4	0.3064
SNB	SN1	0.2291
SNB	SN2	0.4391
SNB	SN3	0.431
SNB	SN4	0.3344
PBC	PBC1	0.3056
PBC	PBC2	0.0531
PBC	PBC3	0.0769
PBC	PBC4	0.0421
BI	BI1	0.6162
BI	BI2	0.7084
BI	BI3	0.4461
BI	BI4	0.4725
LO	LO1	0.2212
LO	LO2	0.3169
LO	LO3	0.4661
LO	LO4	0.5578

*Table 4: Indicator Reliability (Squared Standardized Loading)*

The research has following key findings. The study found that ATDs based on TPB does not related influence SNM ( $p > 0.1$ ) of the students' academic performance. The study interprets that the parents' uneasiness to communicate with faculty does not impact the career advice given by them which impacted student's learning behavior. The parent's positive reinforcement does not impact the student's willingness to show talent and creative work inculcate with culture of institution. The study found that ATD based on TPB does not related influence PBC ( $p < 0.01$ ) of the students' academic performance. The study interprets that rewards and punishments from parents do not impact the intention of students to attend the classes sincerely with full attention. Rather, the rewards and punishments distract the students from their actual goal of studies. The study found that SNM based on TPB positively related influence BI ( $p < 0.0001$ ) of the students' academic performance. The study interprets that teacher's positive ATD inspires the students to be friends with career-oriented students. The role of teachers is significant in students' choice of their friend's circle. The study found that ATDs based on TPB does not related influence BI ( $p < 0.1$ ) of the students' academic performance. The study interprets that the intention to acquire skills and certifications does not change with changing age. In a student's lifetime, their intention of learning skills is constant. The study found that ATDs based on TPB does not related influence LO ( $p > 0.1$ ) of the students' academic

performance. The study interprets that parents’ positive reinforcement does not impact on the right choice of career for students. The right choice of career impacted by their friend's circle, teacher’s involvement, and students’ personal goals. The studyfound that SNM based on TPB positively related influence LO ( $p > 0.001$ ) of the students’ academic performance. The study interprets that motivation by students’ siblings impacts the motivation to improve their academic performance. The siblings act as reference group dynamics for the students resulting in improvement of their academic performance. The study found that PBC based on TPB positively related influence LO ( $p < 0.0001$ ) of the students’ academic performance. The study interprets that students who are learning independently impact the LO resulting in motivation to develop the skill set required for their career. The study found that BI based on TPB positively relatedinfluence LO ( $p < 0.0001$ ) of the students’ academic performance. The study interprets that students who are intended to attend academic classes sincerely results in keeping them motivated to acquire new knowledge and skills. The student's studious nature results in positive LO and improves academicperformance.

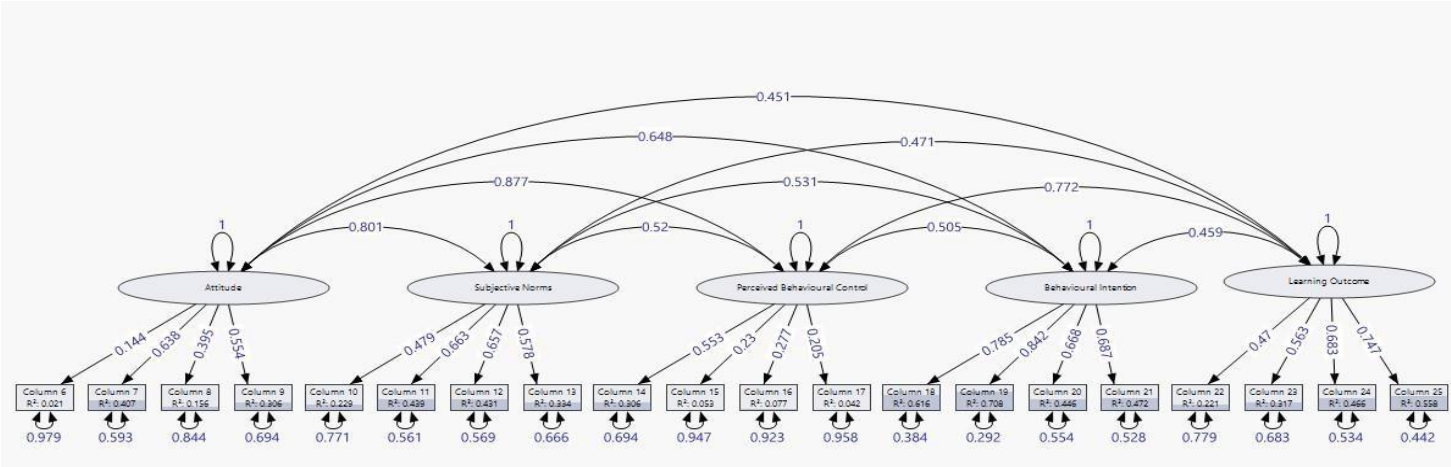


Figure 4: SEM Model – Results

6.2 Hypothesis testing results

Hypothesi s	Conten t	Result
H1	There is a favorable correlation between ATD and SNM	Not Validated

H2	There is a favorable correlation between SNM and PBC	Validated
H3	There is a favorable correlation between PBC and BI	Validated
H4	There is a favorable correlation between ATD and PBC	Not Validated
H5	There is a favorable correlation between SNM and BI	Validated
H6	There is a favorable correlation between ATD and BI	Not Validated
H7	There is a favorable correlation between ATD and LO	Not Validated
H8	There is a favorable correlation between SNM and LO	Validated
H9	There is a favorable correlation between PBC and LO	Validated
H10	There is a favorable correlation between BI and LO	Validated

*Table 5: Hypothesis results*

## 7. DISCUSSION & CONCLUSION

This study will contribute to the existing body of research on the role of parents in students' learning behavior which leads to students' academic performance. By using a TPB perspective, we will be able to examine how parental behavior influences students' intention to study, their PBC over studying, and their actual study behavior. The findings of this study will have important implications for educators. By understanding how parents can impact students' learning behavior, educators can develop interventions to help students manage their LO and achieve their academic goals. The reluctance of parents to engage with faculty members does not influence the career guidance they provide, which, in turn, affects a student's approach to learning. Positive reinforcement from parents has no bearing on a student's inclination to showcase talents or creative endeavors within the institutional culture. Test scores and age have a negative association. This suggests that older students typically have lower results, maybe because they are working while they study. Income and test results are positively correlated, which suggests that kids with affluent parents do better. Test scores and study hours had the biggest positive link. This emphasizes how crucial it is to set aside enough time for studying to achieve well academically (Ali et al, 2013). Another Research looked at the effects of family stress, communication, resources, and supervision on student achievement. Using statistical techniques to examine data, researchers discovered that communication had the biggest beneficial impact on academic achievement. While family stress had a detrimental influence, learning facilities and appropriate direction also had favorable impacts. While stress had a detrimental impact, communication turned out to be the most crucial element for student achievement. This implies that the secret to academic success is effective communication between instructors and students, most likely on assignments and expectations (Mushtaq et al, 2012). However, parental career advice does contribute to fostering a sense of independence in students, ultimately enhancing their learning experience. Family income has a positive correlation with a student's motivation to study independently and pursue additional skills through certifications. Contrary to expectations, rewards and punishments from parents do not impact a student's commitment to attending classes attentively; rather, they can serve as distractions from the primary academic goals. A teacher's positive ATD plays a crucial role in influencing students to form friendships with those who share career-oriented aspirations, highlighting the significant impact teachers have on students' social circles. The intention to acquire skills and certifications remains constant throughout a student's lifetime, unaffected by age-related changes. While parental positive reinforcement may not guide students toward the right career choice, the selection is heavily influenced by their friend circle, teacher involvement, and personal goals. Siblings act as reference groups, motivating students to enhance their academic performance. Independent learning significantly influences a student's skill development for their chosen career. Those intending to attend academic classes diligently are more motivated to acquire new knowledge and skills. A studious nature among students leads to positive LOs, thereby improving overall academic performance. In summary, parental behavior, teacher influence, and student personal goals play pivotal roles in shaping academic choices, while familial dynamics and individual motivation contribute to improved academic performance.

## 8. LIMITATIONS OF THE STUDY

A study with 206 participants may not fully capture the variety of demographics and habits, even though that number is suitable for other investigations. It might limit how broadly the results can be applied. Research participants' preferences may be influenced by parenting due to self-selection bias. This could affect the results' external validity. Convenience samples and focused populations are frequently used in surveys, which may not accurately represent the larger population that we

are trying to understand. Results that are skewed and inaccurately generalized may arise from this. Non-response bias is introduced by incomplete surveys. The results could be skewed by participants who do not answer, as they may differ systematically from those who do. It is possible for questions to be misunderstood and provide false answers. Additional factors that can skew statistics include ambiguous phrasing, social desirability bias, and memory lapses. Data collection issues, such as non-response or incomplete surveys, can have an impact on the quality of the data and the validity of the study. Correlations between variables are frequently seen in surveys, but they do not indicate causality. To establish cause- and-effect linkages, more research is required. It is not advisable to apply findings from certain populations or circumstances directly to larger groups without taking potential differences into account. Unintentionally interpreting data in a way that supports their preconceived notions can cause researchers to ignore contradictory evidence.

## 9. FUTURE SCOPE OF THE STUDY

Understanding the influence of parental behavior on student academic performance is crucial for developing effective interventions and fostering student success. While our research employing the TPB offers valuable insights, the future holds exciting possibilities to delve deeper and expand our knowledge in this area. When we discuss Specificity in Parental Behaviors to classify parental actions like educational support, communication, or monitoring activities. This lets for a deeply nuanced understanding of how diverse behaviors differentially impact performance. Behavior pattern of parents and their effectiveness may vary across cultures. We can understand how the TPB framework can be used better depending on different cultural contexts; this can improve representation of influence parents possess. The influence of explicit behavior of parents may vary depending on the student's age and stage of development. We can examine how the TPB model should be attuned to reflect changes in context. Consider factors for individual student like personality, intrinsic motivation, or socio-economic background along with behavior of their parents. This will offer a holistic explanation of reasons behind student's academic performance. We can explore factors that facilitate the relationship between behavior of parents and performance of student, like student self-efficacy and study habits. We can detect variables that affect this relationship, like support of teachers and influences of peers. We can conduct studies to track the active interplay between behavior of parents, behavior of student, and their academic performance over a longer period. This can expose long-term effect and recognize critical elements of influence. We can study how experiences of parents with education and their own academic performance may influence their present behavior as parents and its impact on their children's performance. Based on research results, we can propose interventions targeting definite behavior patterns of parents; recognized as influential. This can be done through workshops, online resources, or school-based programs. We can thoroughly evaluate the efficiency of suggested interventions on both behavior of parents and academic performance of students. A feedback loops can enhance interventions and ensure real-world impact. We can analyze larger datasets of student and behavior patterns of parents as data points to understand or predict student's academic performance.

## REFERENCES

- Aggarwal, J. C. (2010). *Essentials of educational psychology*. Vikas Publishing House.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In *Action control: From cognition to behavior* (pp. 11-39). Berlin, Heidelberg: Springer Berlin Heidelberg.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Ajzen, I. (2002). Constructing a TPB questionnaire: Conceptual and methodological considerations. Ajzen, I., Fishbein, M., Lohmann, S., & Albarracín, D. (2018). The influence of ATDs on behavior. *The handbook of ATDs, volume 1: Basic principles*, 197-255.
- Al-Mamary, Y. H. S., & Alraja, M. M. (2022). Understanding entrepreneurship intention and behavior in the light of TPB model from the digital entrepreneurship perspective. *International Journal of Information Management Data Insights*, 2(2), 100106.
- Ali, S., Haider, Z., Munir, F., Khan, H., & Ahmed, A. (2013). Factors contributing to the students academic performance: A case study of Islamia University Sub-Campus. *American journal of educational research*, 1(8), 283-289.
- Barua, P. (2013). The moderating role of PBC: The literature criticism and methodological considerations. *International Journal of Business and Social Science*, 4(10).
- Beltrán-Velasco, A. I., Donoso-González, M., & Clemente-Suárez, V. J. (2021). Analysis of perceptual, psychological, and behavioral factors that affect the academic performance of education university students. *Physiology & Behavior*, 238, 113497.
- Conklin, K. D. (1998). *Federal Tuition Tax Credits and State Higher Education Policy: A Guide for State Policy Makers*.
- Cristea, M., & Gheorghiu, A. (2016). ATD, PBC, and intention to adopt risky behaviors. *Transportation research part F: traffic psychology and behaviour*, 43, 157-165.
- Deal, T. E., & Peterson, K. D. (2016). *Shaping school culture*. John Wiley & Sons.
- Dinc, M. S., & Budic, S. (2016). The impact of personal ATD, SNM, and perceived behavioural control on

- entrepreneurial intentions of women. *Eurasian Journal of Business and Economics*, 9(17), 23-35.
- Dörnyei, Z. (1990). Conceptualizing motivation in foreign- language learning. *Language learning*, 40(1), 45-78.
  - Figueroa, L. (2013). Teachers' awareness and skills in addressing students with anxiety symptoms. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). Sage Publications Inc.
  - Hall, K., & Cook, M. (2011). *The power of validation: Arming your child against bullying, peer pressure, addiction, self-harm, and out-of-control emotions*. New Harbinger Publications.
  - Holman, J. (2014). *Good career guidance*. The Gatsby Charitable Foundation, London.
  - Hynds, A., & McDonald, L. (2010). Motivating teachers to improve learning for culturally diverse students in New Zealand: Promoting Māori and Pacific Islands student achievement. *Professional development in education*, 36(3), 525-540.
  - Immerwahr, J. (2000). *Great Expectations: How the Public and Parents--White, African American and Hispanic--View Higher Education*.
  - Jackson, C. (2010). Fear in education. *Educational Review*, 62(1), 39-52.
  - Kara, A. (2009). The effect of a 'learning theories' unit on students' ATDs toward learning. *Australian journal of teacher education*, 34(3), 100-113.
  - Komarraju, M., Musulkin, S., & Bhattacharya, G. (2010). Role of student-faculty interactions in developing college students' academic self-concept, motivation, and achievement. *Journal of college student development*, 51(3), 332-342.
  - Kosten, P. A., Scheier, L. M., & Grenard, J. L. (2013). Latent class analysis of peer conformity: Who is yielding to pressure and why?. *Youth & Society*, 45(4), 565-590.
  - Krishnan, R., Jenefa, L., Kandasamy, L., Thangarasu, G., & Vel, R. (2023, August). Impact of AI Powered Resources on Students Performance. In *2023 Second International Conference On Smart Technologies For Smart Nation (SmartTechCon)* (pp. 720-724). IEEE.
  - Kusumawati, M. D., Fauziddin, M., & Ananda, R. (2023). The Impact of Reward and Punishment on the Extrinsic Motivation of Elementary School Students. *AL-ISHLAH: Jurnal Pendidikan*, 15(1), 183-192.
  - La Barbera, F., & Ajzen, I. (2020). Control interactions in the theory of planned behavior: Rethinking the role of SNM. *Europe's Journal of Psychology*, 16(3), 401.
  - Legault, L., Green-Demers, I., & Pelletier, L. (2006). Why do high school students lack motivation in the classroom? Toward an understanding of academic amotivation and the role of social support. *Journal of educational psychology*, 98(3), 567.
  - Liu, Y. L., Jhang, J. P., Hsiao, C. K., Tsai, T. H., & Wang, I. J. (2022). Influence of parental behavior on myopic genetic behaviors and risk of myopia: analysis of nationwide survey data in children aged 3 to 18 years. *BMC Public Health*, 22(1), 1637.
  - Mushtaq, I., & Khan, S. N. (2012). Factors affecting students' academic performance. *Global journal of management and business research*, 12(9), 17-22.
  - Novitasari, Y., & Fauziddin, M. (2022). Analysis of Digital Literacy of Educators in Early Childhood Education. *Journal of Obsession: Journal of Early Childhood Education*, 6(4), 3570-3577. <https://doi.org/https://doi.org/10.31004/obsession.v6i4.2333>.
  - Novozámská, M. (2015). Charakteristika dítěte předškolního věku. *Začínáme učit češtinu pro děti-cizince*, 22.
  - Park, H. S. (2000). Relationships among ATDs and SNM: Testing the TRA across cultures. *Communication studies*, 51(2), 162.
  - Parola, A., & Marcionetti, J. (2022). Career decision-making difficulties and life satisfaction: The role of career-related parental behaviors and career adaptability. *Journal of Career Development*, 49(4), 831-845.
  - Pena, D. C. (2000). Parent involvement: Influencing factors and implications. *The Journal of Educational Research*, 42-54.
  - Phipps, S. T., Prieto, L. C., & Ndinguri, E. N. (2013). Teaching an old dog new tricks: Investigating how age, ability, and self efficacy influence intentions to learn and learning among participants in adult education. *Academy of Educational Leadership Journal*, 17(1), 13.
  - Porter, L. W., Bigley, G. A., & Steers, R. M. (2003). *Motivation and work behavior*.
  - Ramsey, S., Willke, R., Briggs, A., Brown, R., Buxton, M., Chawla, A., ... & Reed, S. (2005). *Good research practices for cost-effectiveness analysis alongside clinical trials: the ISPOR RCT-CEA Task Force report*. *Value in health*, 8(5), 521-533.
  - Salvy, S. J., Mulick, J. A., Butter, E., Bartlett, R. K., & Linscheid, T. R. (2004). Contingent electric shock (SIBIS) and a conditioned punisher eliminate severe head banging in a preschool child. *Behavioral Interventions: Theory & Practice in Residential & Community-Based Clinical Programs*, 19(2), 59-72.
  - Stephan, W. G., Ybarra, O., & Rios, K. (2015). Intergroup threat theory. In *Handbook of prejudice, stereotyping,*

- and discrimination (pp. 255-278). Psychology Press.
- Stratton, S. J. (2021). Population research: convenience sampling strategies. *Prehospital and disaster Medicine*, 36(4), 373-374.
  - Turner, E. A., Chandler, M., & Heffer, R. W. (2009). The influence of parenting styles, achievement motivation, and self-efficacy on academic performance in college students. *Journal of college student development*, 50(3), 337-346.
  - Vratsidis, D. M., Clark, C. A., Volk, A., Wakschlag, L. S., Espy, K. A., & Wiebe, S. A. (2023). Exploring the interplay of dopaminergic genotype and parental behavior in relation to executive function in early childhood. *Development and psychopathology*, 35(3), 1147-1158.
  - Wang, L. C., Gault, J., Christ, P., & Diggin, P. A. (2016). Individual ATDs and social influences on collegestudents' intent to participate in study abroad programs. *Journal of Marketing for Higher Education*, 26(1), 103-128.
  - Watts, A. G. (2001). Career guidance and social exclusion: a cautionary tale. *British Journal of Guidance & Counselling*, 29(2), 157-176.
  - Wigfield, A. (2023). The role of children's achievement values in the self-regulation of their LOs. In *Self-regulation of learning and performance* (pp. 101-124). Routledge.
  - Wu, M. Y., Zhai, J., Wall, G., & Li, Q. C. (2021). Understanding international students' motivations to pursue higher education in mainland China. *Educational Review*, 73(5), 580-596.
  - Zaid, M. I., & Atshan, N. A. (2023). The Impact of University Culture on Academic Performance: Knowledge Management as a Mediating Variable. *Journal of Asian Multicultural Research for Economy and Management Study*, 4(1), 10-24.
  - Zimmerman, B. J., & Ringle, J. (1981). Effects of model persistence and statements of confidence on children's self-efficacy and problem solving. *Journal of Educational Psychology*, 73(4), 485.