

Article

An Empirical Analysis and Strategy Research on the Transformation of Underachieving Students from the Perspective of Educational Psychological Effects — Taking the "Broken Windows Effect" and "Hawthorne Effect" as Examples

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Abstract: The presence of underachieving students remains an inescapable challenge in educational practice. The psychological concepts of the Broken Windows Effect and the Hawthorne Effect provide critical theoretical frameworks for transforming such students. This study constructs a practical pathway for student improvement from dual perspectives — students and teachers — by integrating the temporal characteristics of educational processes. Empirical case analyses validate that teachers must adopt a dual-strategy approach. First, they should establish a defense mechanism against the Broken Windows Effect through reinforced routine management to disrupt the transmission chain of negative behaviors, while maintaining educational commitment to avoid abandoning transformation efforts due to cognitive biases. Second, they should implement personalized interventions based on the Hawthorne Effect, such as refining expectation goals and enhancing self-efficacy, to build a positive motivational system. Additionally, transformation objectives should be decomposed following Vygotsky's Zone of Proximal Development theory, leveraging phased success experiences to strengthen behavioral change motivation, while employing the art of "pedagogical restraint" to mitigate the negative impacts of the satiation effect. Strategic application of psychological effect theories can effectively facilitate the transformation of underperforming students, realizing the educational vision of "sculpting seemingly rotten wood and polishing stubborn stones".

Keywords: underachieving students' transformation; Broken Windows Effect; Hawthorne Effect; educational incentive

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1. Introduction

Sukhomlinsky viewed students through a developmental lens, referring to those who temporarily lag behind their peers academically or face learning challenges as "underachieving students". He described the work of educating these students as "the most challenging nut to crack" for teachers, noting their progress in "perceiving, comprehending, and memorizing the studied material" is "extremely difficult and slow". In Sukhomlinsky's framework, underachieving students are categorized into three groups: those with undiscovered talents, those whose cognitive engagement remains unactivated, and those whose motivation to learn has not been awakened [1].

The underachieving students discussed in this study refer to those who exhibit deviations or difficulties in moral, intellectual, and psychological domains, resulting in lagging behind their peers in academic performance, behavioral patterns, and psychological development. Some demonstrate poor compliance with school regulations and inadequate behavioral habits; others have unclear academic goals along with deficiencies in perseverance and confidence toward learning; additionally, some resist cooperating with home-

room teachers and frequently engage in conflicts with educators. These behaviors collectively pose significant challenges to classroom management practices. In educational reality, prevalent approaches such as corporal punishment-based education, threat-oriented instruction, and educational marginalization represent neither appropriate forms of pedagogy nor attitudes befitting an educator. Consequently, transforming underachieving students remains a persistent challenge within homeroom teachers' professional responsibilities [2].

Psychological effects refer to systematic patterns and laws in social psychology that manifest as causal or chain reactions where the behaviors or actions of certain individuals or objects trigger corresponding changes in others. These effects possess both positive and negative aspects. If educators systematically follow the laws of students' physical and mental development, correctly recognize psychological phenomena, skillfully apply educational psychology principles to harness beneficial effects while avoiding detrimental ones, they can effectively facilitate the transformation of underachieving students [3]. This paper intends to use the Broken Windows Effect and Hawthorne Effect from psychological research as analytical entry points to explore how these two specific effects can be utilized to improve the management and transformation of underachieving students.

2. Mitigating the "Broken Windows Effect" and Strengthening Preventive Mechanisms

The "Broken Windows Effect" originates from an experiment conducted by Philip Zimbardo, a psychologist at Stanford University in 1969. It describes the phenomenon where, if a single broken window in a building remains unrepaired for an extended period, it implicitly encourages others to break more windows [4].

This effect implies that any form of negative phenomenon constantly transmits implicit messages to the external environment. If such phenomena are not promptly addressed but instead tolerated, these messages will further accelerate the unlimited expansion of the negative phenomenon, ultimately prompting more individuals to imitate it. Therefore, we must remain highly vigilant toward those behaviors that appear accidental, individual, and minor. If these behaviors are ignored, overlooked, responded to sluggishly, or inadequately corrected, they will encourage more people to "break more windows", potentially leading to serious negative consequences akin to the proverbial warning: A small leak will sink a great ship [5].

Case: Student A, an underachieving student ranked at the bottom of the class academically, initially adhered to basic school regulations by avoiding tardiness and early departures. Later, Student A developed romantic feelings for a top-performing "academic star" in the class but received no reciprocal response. After expressing affection through a heartfelt love letter — which was subsequently handed to the homeroom teacher — Student A faced severe reprimands from the teacher and parental involvement. Amid peer ridicule, Student A experienced profound humiliation, leading to a significant decline in academic efforts. This manifested in classroom sleeping behaviors, followed by escalating issues such as tardiness, absenteeism, and a growing pattern of self-destructive habits. Over time, Student A's behavioral decline sharply contrasted with his previously compliant conduct.

Analysis & Reflection: In this case, the emotional setback of unrequited love significantly impacted Student A. When confronted with compounded pressures from school, family, and peers, he first exhibited deviant behavior — sleeping in class. However, the homeroom teacher failed to implement timely and decisive interventions, dismissing the behavior as an accidental, isolated, or minor misconduct warranting no attention. This inaction catalyzed a cascade of escalating negative behaviors and phenomena. Had the homeroom teacher promptly addressed Student A's initial issues — unrequited romantic attachment and classroom sleeping — the "Broken Windows Effect" could have been effectively prevented.

2.1. Students' Proactive Window: Routine Management as a Preventive Framework

In a classroom setting, most "broken windows" behaviors — such as minor misconduct in class (e.g., fidgeting, plagiarism) — are often initiated by underachieving students. Teachers must fully recognize these behaviors and implement timely interventions. For instance, if a student is caught plagiarizing, the teacher should immediately address the issue. This serves two purposes: first, to "repair the first broken window" for the student, preventing recurrent violations; second, to act as a deterrent for other underachieving students, discouraging them from committing similar acts. However, if such behaviors are tolerated, it equates to enabling underachieving students to break their "first window" and even encouraging further damage. This approach inevitably pushes these students into an irreversible downward spiral. Therefore, teachers must maintain vigilant monitoring of underachieving students' initial transgressions across all domains and intervene promptly to "repair" them — no complacency is permissible. Considering the psychological immaturity of elementary school students, teachers should consistently observe their behaviors and emphasize education, repeatedly conveying that they must not be the ones to break the "first window" (whether once or repeatedly), but rather strive to become the ones who repair it.

2.2. Teachers' Nurturing Window: Sustaining Educational Commitment Amid Cognitive Challenges

Beyond managing students' vigilance against the Broken Windows Effect, teachers themselves must never break their own "first window" — that is, they must never abandon hope or courage in educating every underachieving student. Whether dealing with students from dysfunctional families, those with personal challenges, those struggling academically, or those with moral deficiencies, teachers should adopt a human-centered approach, using compassion to inspire educational growth. They must instill sufficient confidence and enthusiasm in these students, thereby reducing the likelihood of their "first window" breaking.

Some teachers privately reprimand underachieving students but later use their behaviors as public examples in class, turning these students into cautionary tales. This practice risks triggering a Broken Windows Effect, undermining subsequent educational efforts.

3. Exploring the "Hawthorne Effect" and Optimizing Attention Strategies

The "Hawthorne Effect" originated from the "Interviewing Experiments" conducted at the Hawthorne Works factory in Chicago (1924-1932). To improve workplace efficiency, researchers conducted over 20,000 interviews with workers over two years, allowing them to freely express grievances and record their suggestions. Social psychologists later defined this phenomenon — where individuals alter their behavior upon realizing they are being observed — as the Hawthorne Effect [6]. In educational contexts, strategically utilizing this effect through sustained, purposeful attention toward underachieving students constitutes a critical strategy for their academic and behavioral transformation.

Case: Student D exhibited persistent disengagement from learning, frequently arriving late, leaving early, neglecting assigned homework, and sleeping during classes. When a new teacher approached him with simple gestures of care — greeting him and asking about his meals — Student D demonstrated dramatic behavioral improvements within days, showing newfound attentiveness in class.

Analysis & Reflection: In this case, Student D generally felt internally marginalized within the class — disparaged by peers and overlooked by teachers. Receiving attention and care from the new teacher shocked him with gratitude and completely altered his mindset. When underachieving students are given focused attention and made to feel its significance, it generates positive psychological reinforcement, creating remarkable motivational effects. This attention positively influenced Student D's academic emotions and

mental state, activated his intrinsic drive for progress, unlocked greater learning potential, and significantly enhanced his confidence and initiative. In this case, the full application of the "Hawthorne Effect" demonstrated its powerful role in transforming underachieving students into academically improved learners.

3.1. Precision Anchoring: Personalized Interventions Through Staged Success Experiences

Reasonable expectations can only promote the development of underachieving students. We cannot expect every underachiever to achieve sudden academic progress or have their negative behaviors disappear quickly under teachers' attention and efforts. Since underachieving students vary in circumstances, teachers must set reasonable expectations based on individual realities, tailoring them to each student's unique situation. Expectations can also be broken into specific stages and concrete projects. For example, teachers may expect an underachieving student to focus on listening attentively for ten minutes per class, maintain this effort for three to four days a week, complete one specific assignment independently and seriously, score slightly higher on each quiz, or gradually reduce classroom drowsiness or talking week by week. Rather than merely expecting them to improve by X points in mid-term/final exams, move up Y rankings, or stop speaking/sleeping in class, small and immediate concrete expectations are more readily accepted and acted upon by students. These expectations help underachievers establish clear goals for effort and make teachers' attention targeted, practical, and visually measurable.

3.2. Internal Engine: Enhancing Self-Efficacy via Attentional Reframing

Underachieving students often have low self-efficacy, doubting their potential for academic success. They believe they lack learning ability, resilience against setbacks, confidence, patience, and perseverance. When facing difficulties, they easily retreat. This explains why some underachievers perform well initially when receiving attention but become discouraged if their efforts temporarily fail to improve grades, eventually giving up entirely. To enhance their self-efficacy, teachers should first assign appropriately challenging tasks based on their foundational abilities and provide frequent formative feedback and rewards. This allows them to accumulate successful experiences and sustain motivation. Second, teachers must guide positive attribution for failure: when failures occur, attribute them to temporary factors like insufficient effort, poor luck, lack of attention, or suboptimal condition, rather than stable factors like low ability or overly difficult exams. Additionally, teachers should provide suitable role models. High-achieving students may be unsuitable as models for underachievers, as this can increase pressure and undermine confidence in some cases. Peer-level models are more appropriate — teachers should identify underachievers with similar starting points but positive attitudes or invite former underachievers who successfully transformed academically to share their experiences. Such peer-based inspiration greatly motivates underachieving students.

4. Conclusion

Beyond the "Broken Windows Effect" and "Hawthorne Effect", other psychological phenomena like the "Overjustification Effect" and "Foot-in-the-Door Effect" also influence the transformation of underachieving students. In reality, many underachievers struggle with insufficient academic perseverance, unclear goals, and low confidence, which severely impact their academic performance. To stimulate motivation and goal-setting in underachievers, teachers must consider these students' receptivity when setting learning requirements, ensuring tasks fall within their "Zone of Proximal Development" (ZPD). Simultaneously, teachers should help underachievers establish hierarchical goals by breaking ultimate objectives into smaller sub-goals and long-term aspirations into short-term milestones. This allows underachievers to build confidence step-by-step through completing sub-tasks. Such an approach helps them experience the joy of achievement,

reinforces their success, and ignites their drive for change. At this stage, if teachers can timely introduce new goals, underachievers are more likely to accept them. Properly applying spiritual rewards can motivate individuals to pursue higher-level goals; therefore, the principle of encouragement must be integrated into the education of underachievers. Teachers should overcome achievement motivation deficits caused by fear of success and effectively stimulate these students' aspirations, offering them renewed hope [7].

The transformation of underachievers is a cyclical process. When facing recurring setbacks, teachers may develop frustration ("hate iron for not becoming steel") and resort to counterproductive methods like repeatedly exposing students' past mistakes to provoke behavioral change. Some teachers, after private criticism, reiterate these students' behaviors as negative examples in class, using them as cautionary tales through repetitive condemnation. Such practices hinder subsequent educational efforts.

In truth, transforming underachievers is a prolonged process. During this journey, teachers must prioritize pedagogical strategies over mere repetition and nagging. At times, silence in certain situations serves as implicit criticism and education. Therefore, teachers should employ appropriate pauses during the transformation process. This strategic use of silence constitutes an art of teaching.

In summary, transforming underachievers remains a critical and challenging aspect of educational work. As educators, we need to apply techniques and methods to enhance the efficiency and effectiveness of such transformations. Teachers should conduct accurate psychological analyses and attributions for underachievers, providing targeted guidance to address their specific mental challenges rather than resorting to simplistic "forceful measures", which could further harm their physical and psychological well-being and hinder their intellectual potential. By reasonably leveraging psychological effects, unexpected positive outcomes may emerge. Eliminating the Stereotype Effect, fostering a Chain Effect in learning environments, cultivating a sense of unity between teachers and students, and applying the South Wind Effect — a gentle and supportive educational approach — all these strategies amplify results while avoiding negative impacts [8]. Whether preventing the "Broken Windows Effect" or emphasizing the "Hawthorne Effect", we must believe that even rotten wood can be sculpted, stubborn stones can be polished, and young minds can be molded. Those who lag behind are not condemned to stay behind — with effort, they too can progress.

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