No Best Prize, But a Better Way: Exploring the Primary Prevention Application of Rewards in School-Wide Positive Behavior Support (SWPBS) Programs

Yi-Jen Karen Yu[1], Shih-Tseng Tina Huang[1,2], Gary Chon-Wen Shyi[1,2], and Shu-Ping Gong[1,3]

A variety of behavioral measures have been adopted and demonstrated to affect students' academic performance and learning behaviors in educational settings. Among them, verbal praise has been deemed as the dominant and effective type of reinforcement in the literature, whereas tangible rewards have been regarded as the controversial type compared to verbal praise. After reviewing the evidence of tangible rewards for their positive behavioral impact, we propose the alternative of combined deployment of the two most widely used forms of reward and argue how the combined use might yield even greater synergetic outcomes. Specifically, we suggest four guidelines to follow and set up the tangible reward as the external goal for students to achieve and the verbal praise as the connector between the external goal, their inner motivation, and effort. These not only provide a goal to strive for and enhance inner confidence, but also empower students to feel that their future is determined by themselves. Several possible advantages could arise from such deployment of combined rewards. Not only the combined rewards might take less time to produce their joint effects, but better support proper behaviors. In addition to providing another model to get praise, the combined rewards could offer greater feasibility in dealing with children's serious problems in educational settings. These suggestions may provide frontline teachers with strategies to promote more effective primary prevention of students' positive behaviors.

Keywords: verbal praise for effort, tangible rewards, the effect of combination, primary prevention

[1] PhD Program in Cognitive Sciences, National Chung Cheng University

[2] Department of Psychology, National Chung Cheng University

[3] Department of Foreign Languages, National Chiayi University

Corresponding author:

Yi-Jen Karen Yu, PhD Program in Cognitive Sciences, National Chung Cheng University. Email: yijen718@ms43.hinet.net

Verbal praise and tangible rewards are the prevalent types of reinforcement in our lives and their benefits and harms have been discussed extensively in the past (Carton, 1996; Chen & Wu, 2010; Deci & Ryan, 2008). In general, both types of reward are thought to provide positive feedback to enhance students' abilities, confidence, and performance (Droe, 2012; Hoffmann et al., 2009; Morris & Zentall, 2014; van der Mars, 1989). Moreover, they are deemed as the crucial elements of classroom management to regulate students' behaviors and induce effective learning (Chalk & Bizo, 2007; Skinner et al., 2005). In educational settings, verbal praise and tangible rewards are the prevalent methods for encouraging and promoting students' performance. Hoffmann et al. (2009), and Floress and Beschta (2018) have shown that the frequency of these two rewards was high in schools, and tangible rewards were used more with younger students, such as snacks or stickers.

Although verbal praise has helped children learn to face failures and challenges, not all verbal praises could exert the same positive influence (Brummelman et al., 2014; Droe, 2012; Skinner et al., 2005). Some studies have shown that praise for process and effort was superior to praise for ability and intelligence (Brummelman et al., 2014; Droe, 2012; Zarrinabadi & Rahimi, 2021). The praise effect for special behavior was greater than the general praise as well (Chalk & Bizo, 2007; Floress & Beschta, 2018). Moreover, the effect of verbal praise would be complicated generally with students' growth because of other deliberations that went into verbal praise. For instance, the implicit meaning behind praising students to promote abilities was that through mastered abilities, they could get the opportunity to obtain a better future (Bilouk, 2015; Takahashi, 2018), or compliments given to standouts were just another validation of their abilities, not for the performance in hand (Su & Wang, 2012).

Compared to verbal praise, some researchers took tangible rewards as a detriment to intrinsic motivation because the performance was not from other people's approval but from nonhuman items (Deci et al., 1975; Deci & Ryan, 2008; Ryan & Deci, 1996). The value of their performance is easily deemed merely by a commodity, not by others' identification. Nevertheless, some researchers proposed different opinions that tangible rewards could have a similar positive effect under well-designed conditions (Cameron, 2001; Eisenberger & Cameron, 1996), for example, tangible rewards should be separated into "completion," "nearly perfect" or "perfect" (Saraswati et al., 2020). From the reward-receivers' side, some self-reports showed that autonomy and competence have risen through tangible rewards (Hoffmann et al., 2009; Jiang et al., 2021). Students also thought some outward tangible rewards were beneficial to their learning motivation, including younger students (Margolang et al., 2019; Saraswati et al., 2020) and undergraduate school students (Bilouk, 2015; Dannan, 2020; McClurg & Morris, 2014). Besides, the trait belongs to tangible rewards would be various, like activities (Ferriz-Valero et al., 2020; McClurg & Morris, 2014; Skinner et al., 2005), privileges, extra time or points (Hoffmann et al., 2009; McClurg & Morris, 2014) which are perceptual experiences beyond verbal words or obtained advantages instead of concrete objects only.

Both types of rewards can promote students' motivation, behaviors, and performance; however, each type has its own strengths and weaknesses. For example, the timing of verbal praise to effect tends to be unpredictable (Eisenberger & Cameron, 1996), but verbal praise is from people's judgment, representing social recognition. So it can be linked to the inner values of mankind easily, such as confidence could be built by the performance recognized through others' praise, meanwhile from the society. And that kind of advantage is hardly obtained by tangible rewards. On the other hand, tangible rewards can make motivation transfer to action more quickly and be implemented with a variety of study duration, ranging from one-off activity (Eisenberger et al., 1999; Houlfort et al., 2002; Jiang et al., 2021) to months (Bica et al., 2016; Bilouk, 2015; Dannan, 2020; Ferriz-Valero et al., 2020). Thus, we tried to figure out some guidelines and a process to integrate the advantages of the two rewards, avoiding their shortcomings, and leading out a more well-rounded method. To be frank, the combination of two rewards has been operated, but people usually focus on only one's effect of them. For example, studies designed to deal with serious issues and problems encountered in schools have employed both verbal praise and tangible rewards simultaneously. However,

rewards were usually administered in different contexts, such as programs for modifying students' improper behaviors (Metzler et al., 2001; Mueller & Nkosi, 2007; Wolfe et al., 2003). Except for verbal praise, coupons, tickets, and even honor recognition systems among schools and communities were administered (Metzler et al., 2001) and the program got a successful result. The treatments of combined rewards were effective not only for general students but also for students with special issues, such as students with self-injurious thoughts (Durand & Crimmins, 1988) or with IDD (Frank-Crawford et al., 2018).

The issues that could be handled by a single reward effectively, either verbal praise or tangible rewards, were usually without immediate danger or of a rather mild nature such as learning motivation (Bilouk, 2015; Corpus et al., 2006; Droe, 2012), expected behavior (Chalk & Bizo, 2007; McClurg & Morris, 2014; van der Mars, 1989) or academic performance (Bilouk, 2015; Chalk & Bizo, 2007; Droe, 2012; McCurdy et al., 2008). However, some issues with severe or complicated problems need more powerful intervention and to be solved in a short time like students' disruptive behaviors or emotional problems (Durand & Crimmins, 1988; Hu et al., 2022; Wolfe et al., 2003). It might be conceivable to focus on combining advantages from both types of reward in order to generate greater effects and would be flexible enough to deal with the problems, from simple to complicated, and could be designed to examine results within a limited period of time. For this reason, we aim to figure out the proper steps to take so that the two forms of reward can be adopted flexibly as a feasible method to tackle various issues in educational settings.

In what follows, we shall first discuss in detail the effects of verbal praise, followed by those of tangible rewards. We will then discuss the prospect and feasibility of combining the two most prominent forms in educational settings and point out the promise that their combination may deliver a wider scope of application and optimized results in educational settings.

Effects of Verbal Praise

Verbal praise typically consists of feedback using positive remarks such as phrases and words (Gable et al., 2009). In school settings, verbal praise has been a popular form of positive feedback (Chalk & Bizo, 2007; Craft, 1998). Although some researchers argued that using praise can have a negative impact on students because it merely flatters students, most educators used it in schools and found it was effective in leading to positive outcomes (Gable et al., 2009; Henderlong & Lepper, 2002).

Droe (2012), for example, found students' esteem and confidence could be enhanced by verbal praise, especially by focusing on praising their efforts. Brummelman et al. (2014) showed evidence that praise of the process would decrease children's feelings of being ashamed or afraid of failure. The positive effect of verbal praise also has been proven to strengthen motivations to study and to read (Chen & Wu, 2010; Corpus et al., 2006). Furthermore, students would take praise to confirm their devoted effort and the feeling of pay-off would make them willing to invest more time and effort (Droe, 2012; Henderlong & Lepper, 2002; Morris & Zentall, 2014; Su & Wang, 2012).

In their study of German students' writing performance, Grünke et al. (2018) found that verbal praise had a significant positive effect on students' motivation and writing skills, especially for those who were low achievers. Other studies found evidence showing that verbal praise not only improves students' academic achievement but also their abilities, such as mathematics and music performance (Chalk & Bizo, 2007; Droe, 2012). van der Mar (1989) designed class sessions and demonstrated the reduction of students' distracting behaviors with verbal praise. On the other hand, Chalk and Bizo (2007) were able to increase students' on-task behaviors and learning attitudes through verbal praise. Furthermore, students' daily behaviors, such as peer interactions in the classroom, were able to be rule-abiding, and they would choose their follow-up behaviors based on an adult's or a peer's praise (Skinner et al., 2005). When students could elevate their esteem or recognition from their classmates through praise, they would be more willing to pay attention to the praise-givers (Murry, 2015; Skinner et al., 2005). For teachers in the classroom, therefore, providing verbal praise and feedback to desirable behaviors can be a low-effort and low-cost strategy

endowed with a high probability of success for classroom management (Chalk & Bizo, 2007; Grünke et al., 2018).

It's also worth pointing out that praise for specific behavior is more effective than general praise. For example, when children were clearly informed that the on-task behavior would earn verbal praise, the proper behavior would be formed faster than the general praise (Chalk & Bizo, 2007). Specifically, the students were more open to challenges (Hoffmann et al., 2009; Sidin, 2020) and students' speed to settle down for work was shortened (Chalk & Bizo, 2007). Moreover, even the non-targeted children might sometimes exhibit the expected behavior (van der Mars, 1989), and the spilled-over effects would develop at the same time when target students were encouraged.

Effects of Tangible Rewards

Tangible rewards are often regarded as a controversial means for enhancing motivation. Some studies argued that tangible rewards were negative to studying motivation because the performance was not induced by intrinsic motivation but by external rewards. Because of that, the real motivation to study would be decreased, and students' inner values might be tied up with tangible rewards (Deci & Ryan, 2008; Ryan & Deci, 1996). However, are tangible rewards detrimental? As pointed out by Eisenberg and his colleagues (Eisenberger & Cameron, 1996; Eisenberger et al., 1999), tangible rewards might have some negative influences on motivation, but only under certain conditions that could be controlled or altered relatively easily, such as avoiding taking tangible rewards to represent the final performance and personal values. Besides, don't make all performances get the same rewards, instead different performances shall be relative to corresponding prizes.

Tangible rewards typically are identified in terms of small objects such as stickers, snacks, points, tokens, stamps, stationery, money, toys, etc. (Bica et al., 2016; Cahya et al., 2018; Frank-Crawford et al., 2018; Hoffmann et al., 2009). However, tangible rewards are not limited to physical prizes and can be in a variety of forms such as ability credentials (Bilouk, 2015; Dannan, 2020), concrete activities, privileges (Durand & Crimmins, 1988; Metzler et al., 2001; Skinner et al., 2005), or merely the enjoyment of playing games (Grubliauskiene et al., 2012; McClurg & Morris, 2014).

Ntoumanis and Blaymires (2003) argued that school-age students are in the phase of developing abilities, and they must acquire those abilities regardless of whether they are motivated to do so. An intriguing reward can be important because it would at least be the first successful step leading to action (Hidi, 2015; Margolang et al., 2019). Apart from verbal praise, offering tangible rewards is a predominant and common means to increase students' motivation and performance in schools (Hoffmann et al., 2009). Both teachers and students have agreed on the positive effect of tangible rewards on motivation and performance (Margolang et al., 2019; Saraswati et al., 2020). For example, students have shown more courage to express opinions or be more active in joining activities in classrooms (Hoffmann et al., 2009; Sidin, 2020). Saraswati et al. (2020) have clearly presented evidence indicating that tangible rewards should be different according to students' level of performance, such as perfect, nearly perfect, or completion only, which in turn can improve their motivations.

In addition to elevating academic motivation and performance (Cahya et al., 2018; Floress & Beschta, 2018; Hoffmann et al., 2009), a well-designed reward system can evoke students' motivation and performance and even produce greater creativity. For example, Eisenberger and Armeli (1997) found that a large reward would lead to the greatest novel performance, compared to the small-reward and no-reward conditions. Moreover, tangible rewards could develop a positive influence on behaviors. For instance, Clair et al. (2018) used points as tangible rewards to encourage positive behaviors from students in their Positive Plus Program and showed that students' disruptive behaviors were effectively reduced and improved. In Belgium and the United States, instructors used various tangible rewards to enhance the chance for students

to choose healthy foods (Bica et al., 2016; Grubliauskiene et al., 2012). Finally, Ahn et al. (2019) found that students could develop strategies to "beat the system" when the rewards shifted from pure physical education intervention to earning points which represented tangible rewards.

Combining Verbal Praise and Tangible Rewards: A New Direction and a Better Strategy

Both verbal praise and tangible rewards play important roles in enhancing inner values and abilities; however, not all verbal praises have a positive effect. For example, the praise for effort or working process has been shown to help students face frustration and failure and boost their morale to embark on the challenge of difficult tasks (Brummelman et al., 2014; van der Mars, 1989; Zarrinabadi & Rahimi, 2021). In contrast, verbal praise for intelligence or person might impede learning in the future (Brummelman et al., 2014; Droe, 2012; Zarrinabadi & Rahimi, 2021).

According to the cognitive evaluation theory and the self-determination theory (Deci & Ryan, 2000, 2008), only people who feel competent, and autonomous, and maintain a constructive and meaningful relationship with others, can have their intrinsic motivation promoted and proven beneficial. Indeed, verbal praise is considered an effective and popular form of reinforcement; however, the time to detect changes in natural circumstances is fluid and hence unpredictable. On the other hand, tangible rewards take a shorter time for students to perform the task because they could jump-start their motivation to exhibit outward (Eisenberger & Cameron, 1996). In addition, a proper tangible reward that desires to generate an effective outcome within a limited time can be critical because an intriguing reward attracts students' attention and makes them decide to try (Hidi, 2015; Margolang et al., 2019).

Although tangible rewards are suspected to the advantages, it is worth emphasizing that tangible rewards can be positive incentives when they are well-designed (Cameron, 2001; Eisenberger & Cameron, 1996). Moreover, adding a dimension that is beneficial to prove one's worth would be feasible (Brummelman, 2014; Corpus et al., 2006; Droe, 2012) because when effort can gain others' approval and praise, in turn, confidence can be promoted (Gable et al., 2009; Henderlong & Lepper, 2002). The rewarding levels proposed by Saraswati et al. (2020), were completion, nearly perfect, and perfect, where "completion" refers to "effort." For this reason, the reward system can consist of achievement and effort, corresponding to relative outcomes respectively. In the achievement part, for example, getting a score of 60 points can gain a base reward, and the reward can be better while the achievement obtains a higher level. In the effort part, encouraging students to finish is the priority, and the completion of 30- 50 percent can be taken as the baseline of the assignment. Different completion would get relative rewards, no matter whether the answer is right or wrong. Thus, students can receive both rewards for achievement and effort after finishing a task.

There can be little doubt that verbal praise and tangible rewards have different advantages and disadvantages, and neither is perfect. Stajkovic and Luthans (2003) found that the simultaneous use of different rewards produced a synergistic effect greater than the sum of individual rewards. Schultz et al. (1998) suggested that diverse rewards could serve distinct functions, and a cooperative approach was able to optimize learning performance. Therefore, it might be worthwhile to consider another alternative and figure out the feasible rewards and effective methods under different circumstances, instead of dwelling upon comparing their respective benefits and costs. By incorporating tangible rewards as part of an integrated package to promote motivation, we may be able to intervene and facilitate changes more effectively. In fact, these two different kinds of rewards are employed to accomplish the same expected goal in our lives; however, our focus usually has been on the effect of only one kind while neglecting that of the other, as exemplified in the studies by Mueller and Nkosi (2007) and Wolfe et al. (2003). For example, the therapist promoted a student's behavior, who was with mental retardation and autism, and the potato chips were taken as accessible rewards, however, the demanding or praise was still used by verbal and gestural feedback (Mueller & Nkosi, 2007). In the other study by Wolfe et al. (2003), adolescents with emotional and behavioral disorders could keep their behavior more stable through cooperative games

and the token economy program, but in the interaction with peers and instructors, verbal praise played the roles of modeling, strengthening, and encouragement. In their studies, they presented evidence for the impact of the manipulated tangible rewards, but verbal praise was kept as the basic element of teacher-student interactions. Although verbal praise was only mentioned in the background, the effects of the two rewards should have jointly influenced the outcome they reported. On the other hand, some larger programs inclusive of schools and communities blended the two kinds of rewards and found successful outcomes (Bica et al., 2016; Metzler et al., 2001), and other programs needed to show the effect within the limited time administered the two kinds of rewards together for assisting students with emotional problems or special needs (Doyle et al., 1996; Durand & Crimmins, 1988; Wolfe et al., 2003). Therefore, the two kinds of rewards—verbal praise and tangible rewards—ought to be blended or combined in the same reward package for administration explicitly, a theme that might have been ignored for a long time.

Blending Verbal Praise and Tangible Rewards

To increase the effectiveness of rewards combination, the actual administration should be flexible in accordance with the specific context. Nevertheless, based on the previous literature, we still could outline the process such as Figure 1. Teachers can set up tangible rewards as part of students' integrated motivation and give verbal praise in the process, to connect the children's efforts and performances that would lead to the corresponding tangible rewards, and the tangible rewards, in turn, would enhance their inner abilities and values (Cameron, 2001; Cameron & Pierce, 1996).

Thus, two parts can be designed in a tangible reward system, achievement and effort. One part is the objective result, and the other one is a factor that can be controlled by themselves and prove their values as well. When the two kinds of praise can be integrated into students' motivation, tangible rewards become the facilitators, conducting the goal behavior. During the process, verbal praise must link students' effort, rewards, and motivation. Praise for process and effort can be made more often to intensify the bonding because the effort in the work process can be lauded instantly and unlimitedly when it is identified. Doing so, not only strengthens the relationship bonding of the three parts but also increases students' confidence via effort-praising in the process frequently. The importance of the learning process was also pointed out by Huang and Cherng (2021) because the cognition of learning mood impacted students' learning motivation and even could predict the subsequent academic engagement.

Figure 1
The Process and Configuration of the Two Rewards
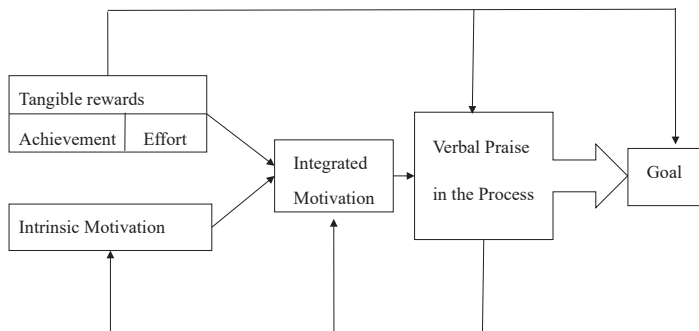
Therefore, a set of four guidelines can be followed: First, setting up tangible rewards that can attract students (Hidi, 2015; Margolang et al., 2019). Second, different levels of achievement and effort should relate to the corresponding rewards properly (Eisenberger & Cameron, 1996, Saraswati et al., 2020). Third,

the praise-giver should use verbal praise properly to connect the performance with children's efforts that belong to inner values (Brummelman et al., 2014; Droe, 2012; Zarrinabadi & Rahimi, 2021). Finally, the praise-giver should focus on children's work process and effort and praise them frequently, which will help strengthen the connection and motivation (Chalk & Bizo, 2007; Skinner et al., 2005). Using these guidelines, the combination of two rewards may become more well-rounded and effective and lead to a greater effect.

Optimizing the application

Verbal praise and tangible rewards should be included in the same package of rewards. Nonetheless, their combination should not be fixed and instead should be adjusted. In accordance with some studies from kindergarten, and elementary school (Floress & Beschta, 2018; Hoffmann et al.,2009) to undergraduate school students (Ferriz-Valero et al., 2020; Jiang et al., 2021; McClurg & Morris, 2014), we found the effective rewards were different, and the tendency was from small items to activities or monetary ones. Besides, when the goals needed students to endeavor more, compared to their ordinary life, the rewards were special such as books, coupons, or privileges (Bica et al.,2016; Jiang et al., 2021; Metzler et al., 2001). In addition to this, not only Henderlong and Lepper (2002) but also Jiang et al. (2021) mentioned that the reward results have been impacted by personal factors. Thus, taking these into considerations not only would help develop clear arrangements but also lead to better and more effective outcomes.

Adjustment with Age

People's abilities and needs will expand wider with growth, so that the words and tangible rewards we choose would be apt, and the forms would be from childish to varied with age. For example, rewards for younger students can be snacks or stickers and the phrases we use shall be brief. However, for elder students, monetary rewards or activities may be more attractive and they can understand more meanings we implied under literal praise. According to Vygotsky's theory on cognitive development, children's language abilities generally improve with growth and interaction with the world surrounding them (Hausfather, 1996; Rowe & Wertsch, 2002). As they grow up, children learn to understand more complex texts, including the implied meanings underneath the literal ones. At the same time, children's cognitive and language abilities are tools to learn and interact with other people and understand society at large (Carey et al., 2015; Hausfather, 1996). With the increased influence of literacy, culture, and social interactions, children's cognitive systems will interpret the accepted meanings, converting them into beneficial or detrimental feedback (Henderlong & Lepper, 2002) or reacting to the perlocutionary force (Válková, 2013). Morris and Zentall (2014) have demonstrated that kindergarten children can understand verbal praise; however, they might misunderstand or interpret the meaning of the praise in their own ways. It doesn't mean that verbal praise is not important for children at this young age, but the meaning of the praise might be blurred due to their limited language capabilities. Hence brief and unambiguous verbal praise can go a long way and generate more obvious effects. For older students or adults, verbal praise sometimes is not a simple compliment, but more meanings can be hidden under literal usage which might not be expressed straightforwardly (Henderlong & Lepper, 2002; Válková, 2013). For example, students in Rwanda and Algeria could get more resources and opportunities for future life relying on better abilities, and this implication was hidden in the praise used to promote abilities at that time (Bilouk, 2015; Takahashi, 2018). Peng (2021) also disclosed that junior students' self-efficacy and academic performance were impacted not only by normative praise or valuation but also by multiple-referential feedback because they would accept different feedback to judge comprehensively.

Besides, the rewards that we care for will change from those appealing to younger children to those that are more practical and are able to count as benefits, because the domain of our living environment will expand, extending from families to the broader society gradually. Tangible rewards for younger children

typically comprise a variety of small objects such as stickers, snacks, points, tokens, stamps, stationery, money, toys, etc. (Bica et al., 2016; Cahya et al., 2018; Doyle et al., 1996; Frank-Crawford et al., 2018; Hoffmann et al., 2009). For older students or young adults, however, monetary rewards from real money are more attractive (Eisenberger et al., 1999; Jiang et al., 2021). Several studies have shown activities or privileges such as holding a party, listening to music, or more computer time can also serve as effective rewards for older students (Durand & Crimmins, 1988; Metzler et al., 2001; Skinner et al., 2005). Or they may want to obtain the rewards just for their entertainment values (Grubliauskiene et al., 2012; McClurg & Morris, 2014). Moreover, gaining peer recognition and/or social status among peers is sometimes preferred (Bilouk, 2015; Dannan, 2020). The certificate of ability or opportunities to enhance achievement that are beneficial to their future also have transformed into influential forms of tangible rewards (Bilouk, 2015; Dannan, 2020; Hill, 2001; McClurg & Morris, 2014).

Adjustment with Goals and Functions

Different goals need proper rewards separately, such as different configurations of verbal praise and tangible rewards. For behavior-conducting, verbal praise and tangible rewards may be operated together. For fulfillment-seeking, language may be more effective. If extra effort is needed, valuable prizes are more attractive, such as bonuses and vouchers for competition.

During childhood, basic abilities, moral rules, and character development are important issues and children must learn and acquire them through experiences, regardless of whether they like it or not (Kohlberg & Hersh, 1977; Maree, 2021; Ntoumanis & Blaymires, 2003). Verbal praise is important for children (Brummelman et al., 2014) because it can help cultivate children's inner ability, increase their confidence, and elevate their persistence (Henderlong & Lepper, 2002; van der Mars, 1989). As studies on motivation and behaviors have clearly demonstrated, most children would not modify their behaviors spontaneously unless they are required to. Therefore, if we can allure their interest at the beginning then the opportunity for intervention can be effectively created. Praise, encouragement, and rewards are important tools for improving children's motivation and behaviors (Cahya et al., 2018; Chalk & Bizo, 2007; Henderlong & Lepper, 2002; Margolang et al., 2019; Metzler et al., 2001; Skinner et al., 2005).

With growth, the influence of literacy on children increases gradually. Válková (2013) argued that the potential function of language is broader than the literal meaning, where even the effect of praise can be amplified above and beyond what is literally conveyed. According to Maslow's hierarchical theory of motivation, after satisfying basic biological and physiological needs, people seek self-fulfillment (Taormina & Gao, 2013). Confidence, persistence, or self-assessment which belong to self-perceived competence can be elevated using verbal praise (Grünke et al., 2018; Henderlong & Lepper, 2002; van der Mars, 1989). Obtaining higher achievement (Dannan, 2020; Droe, 2012), challenging more difficult tasks (Grünke et al., 2018; Jiang et al., 2021; van der Mars, 1989), and facing tougher circumstances (Brummelman et al., 2014; Henderlong & Lepper, 2002) can all become designated goals under the complex interaction between literacy and culture (Henderlong & Lepper, 2002; Morton et al., 2020; Válková, 2013). When tangible rewards are integrated into promoting motivation and become the driving force to work harder, instead of using the final achievement as the only judgment of effort and performance, the motivation and effort would increase because the process and achievement are evaluated and appreciated separately. Cameron (2001) and Cameron and Pierce (1996) contended that by avoiding using tangible rewards to represent the final performance and personal values, the positive effect of tangible rewards would stand out by itself, enhancing students' abilities and elevating their values as well.

When novel ideas and creative behaviors are concerned, tangible rewards can generate a significant impact. Eisenberger et al. (1999), for example, showed that students were more willing to try novel objects or tasks even if they already knew about the rewards. However, if the attempt was not intriguing enough or just an ordinary one, the impact of the tangible rewards was reduced, similar to the non-reward condition.

Eisenberger and Armeli (1997) found that a large reward can lead to the greatest novel performance, compared to the small-reward and no-reward conditions. In addition, they pointed out that the reward for creative performance increased originality in students' subsequent drawings. The ineffective reward might draw students' attention initially and may even cultivate secondary or other benefits, but hardly propels them to achieve the goals teachers anticipated.

Adjustment with Individual Differences

Praise-giving is not simply a one-way transmission, but a complex cognitive process that entails the context and potential but less transparent meaning (Henderlong & Lepper, 2002; Morton et al., 2020; Válková, 2013). Objective praise and rewards generate different effectiveness due to subjective explanation. Therefore, it is conceivable that some factors can mediate the outcome of praise, such as the characters and personalities of the receivers (Jiang et al., 2021; Weaver et al., 2004).

Tangible rewards appear to have a greater impact on students with lower self-esteem, lower ability, or lower achievement. In their study, Jiang et al. (2021) showed that tangible rewards had a significant impact on students with low autonomy. Margolang et al. (2019) and Cahya et al. (2018) also found a relationship between the performance of students with weaker motivation and tangible rewards. But for standouts, praise might be just a self-affirmation (Su & Wang, 2012; Houlfort et al., 2002). Such findings point out the important consideration where the application of tangible rewards should be careful because students with high ability might take the rewards as self-encouragement and confirm their abilities. In contrast, tangible rewards might become a double-edged sword for those with lower self-esteem because they are prone to stop motivating themselves and verify them even more valueless after the cessation of tangible rewards. Thus, the configuration of a tangible reward system shall consist of achievement and effort. For example, the exam outcome can be rewarded by different completion regardless of being correct or wrong answers to encourage students' effort-taking. Meanwhile, the achievement part can be rewarded by different grades. In this way, even though it is hard for low-ability students to get rewards for their achievements, they still can be lauded through effort. The ultimate aim is to build their inner confidence and motivation, decreasing reliance on extrinsic incentives gradually.

Effects of Rewards Combination

Verbal praise has been proven to have a positive effect, elevating students' inner qualities such as confidence, persistence, or self-assessment (Grünke et al., 2018; Henderlong & Lepper, 2002; van der Mars, 1989). When tangible rewards were arranged in such a manner that different performances would receive respective rewards, their positive effects were similar to those derived from verbal praise (Cahya et al., 2018; Eisenberger & Cameron, 1996).

Compared to verbal praise, tangible rewards are used when students only have a shorter time to perform the assigned tasks (Cameron & Pierce, 1996). Some studies have shown that effective tangible rewards help keep students active and more willing to respond. Qualitative research from Cahya et al. (2018) mentioned teachers found students' motivation was pretty high at the beginning of teaching with tangible rewards, nevertheless, it declined without other interventions. Skinner et al. (2005) proposed when an assignment was divided into many discrete tasks, tangible rewards could become the reinforcer instantly and encouraged students to increase their completion rates. Thus, when the issue at hand is to examine the outcome of treatment or intervention within a limited time, then tangible rewards are feasible. However, in cases where problems we deal with are complicated, such as disruptive behaviors in the classroom, and the treatment needs to consider both internal and external issues, then the combined rewards could be an effective means of intervention. According to Stajkovic and Luthans (2003), the synergy between positive feedback and tangible rewards had greater effect than the sum of the individual rewards. This finding is similar to suggestions of Schultz et al. (1998), who proposed that the cooperative method not only

served different functions but also optimized the outcome. Specifically, verbal praise could improve inner capabilities while tangible rewards would be able to produce faster external changes, then serious problems might be prevented from becoming worse, and even be ameliorated in a short duration. To sum up, several advantages may be gained in rewards combination: First, it would take less time for the combined rewards to produce their effects. Second, in addition to better managing typical behaviors, the combined rewards can offer an improved chance of success in dealing with children's serious problems in educational settings. Moreover, it proves another way to gain praise apart from excellent achievement.

Effects Can Emerge within a Limited Time Frame

If we use verbal praise as the sole reward to improve students' motivation or performance amidst natural interactions, the exact timing for the effect to emerge can vary and be difficult to predict (Eisenberger & Cameron, 1996). We can observe the effect of verbal praise only when some event takes place and people react to it, which would then offer us the window of opportunity to check whether students' behaviors have changed or been promoted. In other words, it is hard to confirm or predict the effect of verbal praise in natural settings. In contrast, tangible rewards could be facilitators to increase or convert motivation into deeds more readily (Hidi, 2015; Sidin, 2020). For example, the offer of tangible rewards can make students more courageous and active in expressing their opinions during study sessions (Cahya et al., 2018; McCurdy et al., 2008; Skinner et al., 2005). The function and presence of variables within a limited time frame, from immediate reaction (Skinner et al., 2005) to weeks (Wolfe et al., 2003), instead of waiting for the consequence to occur naturally across the circumstances.

Effects Are Multi-Faceted

Verbal praise can build and raise confidence (Chalk & Bizo, 2007; Grünke et al., 2018) and perceived capability (Droe, 2012; Lekwa et al., 2019), its effects need time to ferment (Eisenberger & Cameron, 1996), however, serious troublesome situations cannot wait, like issues of emotional behaviors (Metzler et al., 2001; Mueller & Nkosi, 2007), disruptive behaviors (Browne, 2013; Hu et al., 2022), or self-harming behaviors (Durand & Crimmins, 1988), each can pose a serious problem, not only interfering the pedagogical process in the classroom but also threatening the safety of other students in the same setting. It's difficult for verbal praise as the only form of reward to show its effects within a short period. That is why we need a more powerful intervention to turn things around on short notice. The combination of verbal praise and tangible rewards would increase inner abilities and facilitate external performance both immediately and over the longer term. From increasing the inner motivation, adding the willingness, and then confirming the behaviors, the virtuous cycle can consolidate the process and strengthen the connection between the rewards and target behaviors, leading to the accumulated effect. For this reason, the reward combination may be a more desirable alternative and a better strategy for changing and modifying students' behaviors.

Effects Can Provide Another Successful Model

Furthermore, the reward combination also provides a pathway to access another kind of success that does not belong to the achievement only (Cahya et al., 2018; McCurdy et al., 2008). Students could still succeed through their effort or the process of hard work instead of excellent performance. For instance, while those with outstanding performance would be awarded with prizes or honors for their achievements, other students could also have chances to receive rewards and be honored for their efforts (Craft, 1998; Skinner et al., 2005). Houlfort et al. (2002) also proposed that rewards for students were like metaphors because their effort implied a controlled future and they found students' perceived competence would be increased. Therefore, an improvement from all students of the entire class might become achievable and

observable in a short period via the combination of rewards.

Summary and Conclusion

Although verbal praise might comprise only a phrase or few words, it may provide positive feedback to students and foster the energy to nourish their inner values and strengthen their confidence and persistence (Droe, 2012; Henderlong & Lepper, 2002) or repair the perceived competence that was damaged (Grünke et al., 2018; Zarrinabadi & Rahimi, 2021). Furthermore, students' motivation for studying and academic capability can be increased through verbal praise (Deci & Ryan, 2008; Grünke et al., 2018; Murry, 2015; Ryan & Deci, 1996). Finally, as demonstrated by Chalk and Bizo (2007) and van der Mars (1989), verbal praise can motivate students to modify their behaviors, and even the atmosphere of the entire classroom becomes better as a result of the presence of verbal praise (Chalk & Bizo, 2007).

Verbal praise has been shown to benefit children. In particular, the praise for process and effort leads to better results than the praise for ability and intelligence (Brummelman et al., 2014; Droe, 2012; Zarrinabadi & Rahimi, 2021). Moreover, the praise for process and effort can be made more frequently than for the final performance, because the effort in the work process can manifest itself without much constraint and hence receptible to praise when it is identified. On the other hand, praise for the final performance can happen only once, just for honor and achievement at the moment of completion. Therefore, frequent praise for process and effort can strengthen their connection to the outcome.

Tangible rewards are usually defined in terms of concrete prizes, hence constitute extrinsic motivation. However, tangible rewards can also lead to positive effects when they are designed well (Eisenberger & Cameron, 1996). The forms of tangible rewards should be flexible, varying from concrete objects, such as stickers, snacks, tokens, etc. (Bica et al., 2016; Cahya et al., 2018; Doyle et al., 1996; Frank-Crawford et al., 2018; Hoffmann et al., 2009) to activities or privileges (Durand & Crimmins, 1988; Metzler et al., 2001; Skinner et al., 2005), or just for the opportunity of being entertained (Grubliauskiene et al., 2012; McClurg & Morris, 2014). According to the self-determination theory, people would integrate extrinsic factors and take into consideration the information they receive, internalizing them to form integrated motivation (Deci & Ryan, 2000; Gagné & Deci, 2005). Rewards are without a doubt beneficial to influence students' performance and to become a part of integrated motivation leading to students' expression. But more than this, the rewards need to be conjunctive with effort, not with achievement merely. By that, the rewards via effort can increase inner motivation reversely because the effort is able to earn social recognition, meanwhile and represent a future within their control (Houlfort et al., 2002) Just as Deci and Ryan (2000, 2008) proposed that it is beneficial to intrinsic motivation when people feel capable, autonomous, and maintain a meaningful relationship with others. Although integrated motivation is different from intrinsic motivation, it is at least partially derived from an actor's inner values and motivation. When tangible rewards become part of the integrated motivation, educators may have the opportunity to intervene.

Verbal praise can satisfy immediate psychological needs; however, predicting the timing of long-term behavior change and solidification might be challenging, and that's why it needs a facilitator. By contrast, tangible rewards operate like a final goal , praising after the expected behaviors, showing explicitly that there is something unknown linking behaviors and reinforcement and pushing them forward. Therefore, combining and incorporating these two types of rewards in the same treatment may be the solution for effective classroom management. That is, the tangible reward is the goal, and the verbal praise serves as the connecting link between the reward, inner value, and effort. Furthermore, tangible rewards would strengthen motivation and willingness at the same time, converting them into actions more rapidly and effectively (Eisenberger & Cameron, 1996). Therefore, the combination of the two types of rewards can be employed to examine the effect of manipulated variables more efficiently within the limited time frame because the changes would be guided by the process of obtaining rewards rather than waiting for them to

happen spontaneously.

　　Another benefit of the combined rewards is to increase the effectiveness in the promotion of inner capabilities and improvement of external performance simultaneously. Some classroom issues such as severe emotional or behavioral problems (Wolfe et al., 2003), self-injurious thoughts and behaviors (Durand & Crimmins, 1988), or violent deeds (Metzler et al., 2001; Mueller & Nkosi, 2007) are complicated and require more powerful treatments. Each type of problem can be serious , and powerful interventions and treatments are needed to deal with or prevent the problem from worsening over time. Therefore, identifying feasible methods is crucial for primary prevention in school-wide positive behavior support. Verbal praise can enhance inner confidence and self-esteem, while tangible rewards may produce quicker external changes. The blended operation of the two types of reward within the same intervention has the greater synergy to foster benefits from each type of reward (Schultz et al., 1998; Stajkovic & Luthans, 2003), setting up virtuous cycles, and producing powerful effects. Hence the combination of verbal praise and tangible reward would generate multiple effects and help to solve the challenging problems. At the same time, rewards from effort-taking could be taken as another route to obtain others' praise and recognition, and by that, inner confidence can be raised reversely as well.

　　It is important to know that the combination of the two types of reward is not fixed and can and should be adjusted following the age and personality characteristics of students as well as the goals they are expected to achieve. Younger children need shorter verbal phrases to avoid misunderstanding due to the limitation and immaturity of their language and cognitive capacities (Carey et al., 2015; Morris & Zentall, 2014). At the same time, effective tangible rewards for younger children should be chosen to be close to their experiences, such as stickers, snacks, or stationery (Bica et al., 2016; Hoffmann et al., 2009). With growth and development, increased literacy, and interaction with society, culture, and other facets of life, the adjustment would make verbal praise not as simple as it used to be and may incorporate other deliberations (Morton et al., 2020; Válková, 2013). The expectation for improved abilities, self-fulfillment, or a better future could be nurtured and become the integrated motivation under literal praise for older students or young adults to work harder and pursue (Bilouk, 2015; Dannan, 2020; Takahashi, 2018). On the flip side, tangible rewards for them can be very diverse, such as monetary prizes (Jiang et al., 2021), activities, or privileges (Durand & Crimmins, 1988; Metzler et al., 2001), not limited to concrete objects anymore.

　　Besides, the choice of rewards shall be based on the expected functions. Using verbal praise and tangible rewards together can lead to issues of desirable behaviors (Cahya et al., 2018; Margolang et al., 2019; Metzler et al., 2001; Skinner et al., 2005), however, goals need extra effort-taking or creative issues might opt special or more valuable rewards such as high bonuses (Eisenberger & Armeli,1997; Eisenberger et al.,1999). Finally, the personality of reward recipients also needs to be cautious, especially for those who have low self-esteem or autonomy (Cahya et al., 2018; Jiang et al., 2021; Margolang et al., 2019). The positive effects of tangible rewards apparently have an impact on them; however, after cessation of tangible rewards, they are likely to be those who may harbor a significant negative consequence of being unable to motivate themselves. It's important to manage the duration of rewards effectively; any changes or discontinuations should be communicated clearly to avoid unintended consequences. In conclusion, no reward is panacea. Therefore, we argue that a more useful and better strategy is to combine verbal praise and tangible rewards in order to take advantage of both types of rewards to produce greater synergy while avoiding their shortcomings. Specifically, taking tangible rewards as goals and connecting the recipient's effort, inner value, and rewards with verbal praise may prove to be the productive route to embark on in educational settings

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沒有最好的獎勵，但有更好的方式：淺談獎賞在學校全面正向行為支持計畫（SWPBS）中的初級預防

尤怡人[1]、黃世琤[1, 2]、襲充文[1, 2]、龔書萍[1, 3]

在校園中，已有許多方式證明可以提升學生的學業成績和學習行為。其中，口頭稱讚在大部分的文獻中占了絕對的地位，並且屬於有效的強化類型，然而和口頭稱讚相比，實際獎賞比較具有爭議性。在探究了許多關於實質獎賞對其學生行為表現的正面影響的研究之後，我們提出了聚焦在這兩種獎勵形式組合運用而非互相比較優劣，並討論了要如何綜合使用以期產生更好的協同作用力。具體來說，我們提出四個步驟，建議將有形的實質獎賞作為學生要實現的外在目標，以口頭稱讚連接外在目標、內在動機與努力的個人價值。這種雙管齊下的運用會產生幾個優勢，除了能縮短產生效果的時間之外，還能更有效地引導學生常規，提供另一種可得稱讚的途徑，甚至在處理學生嚴重的行為或情緒問題時提供更大的可行性。期待這些建議可以提供給第一線教師制定策略，在初級預防的層級中更有效地促進學生的正向行為。

關鍵詞：對努力的稱讚、實質獎賞、獎賞的綜合運用、初級預防

[1] 國立中正大學認知科學博士學位學程
[2] 國立中正大學心理學系
[3] 國立嘉義大學外語學系

通訊作者：尤怡人，國立中正大學認知科學博士學位學程，yijen718@ms43.hinet.net