

Motivation and Rewards

The brain does have its own built-in reward system. It's not only unique to each individual, but it also habituates to new levels. This makes extrinsic rewards inferior from the start.

—Eric Jensen

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Rewards in Learning

The old model of teaching was to identify desirable student behaviors—being on time, sitting still, being quiet, learning, taking tests, being nice, etc.—and then reward the positive behaviors and punish the negative ones. This B.F. Skinner theory of behaviorism works great on rats. But on humans, it's a disaster. People are far more complex than rats, and though people can be persuaded to do almost anything to gain a reward or avoid punishment in the short-term, the qualities of creativity, civility, and higher-order thinking will go untapped in the long-term. Rewards create uncertainty in the mind of the learner: "Will I get it or not?" This question causes anxiety and distress in the brain, which then chooses the tried and true—not necessarily the optimal—approach to learning: repeating predictable and familiar paths. Thus, memory, higher-order thinking skills, and creativity are not exercised. Consequently, rewards encourage robot-like behaviours.

A reward is defined as compensation or a consequence that is both (1) *predictable* and (2) *has market value*. If it's only predictable, but has no market value (i.e., a smile, a hug, a compliment, a random item, an awards assembly, public approval, etc.), then it is simply an **acknowledgment**, not a reward. If it has market value, but absolutely no predictability (a spontaneous party, pizza, cookies, gift certificates, small gifts, trips, tickets, etc.), then it is a **celebration**, not a reward. If students know that by behaving a certain way, they might get a prize, that implies enough predictability to be called a reward. The determining criteria are simple: Did the learner change his or her behaviour in the hopes of getting the favour? If you offer something that has both predictability and market value, you are, in fact, bribing the learner. Rewards carry an implicit and covert threat: "If you don't meet the criteria for the reward, some opportunities will be withdrawn from you."

Rewards Impair Creativity

The relationship between motivation and rewards has far-reaching implications for the creative process. The research suggests that extrinsic motivation inhibits intrinsic motivation. Creative ability is strongly linked to intrinsic motivation, because creativity gives the brain freedom of intellectual expression, which fuels even more thinking and motivation. A reward system prevents the establishment of intrinsic motivation because there is no internal incentive to be creative—only to do the asked for and rewarded behaviour. Creativity is rarely part of any reward system. In fact, the two are usually at far ends of the scale. Learners exhibit either intrinsically motivated creative thinking or extrinsically motivated repetitive, rote, and predictable behaviours. Geoffrey and Renate Caine (1990) sum up rewards this way: “A system of rewards and punishments can be selectively demotivating in the long-term, especially when others have control over the system.” Their contention is that behaviour-oriented threats and anxiety, coupled with a lack of student input and control, will “downshift” learners’ thinking, causing them to repeat predictable responses as a way to lower anxiety and convince teachers the reward system is working. This makes it harder to change the system, as doing so creates “threat and anxiety” for both students and teachers. As an example, in foundation stage, many learners get a smile sticker for good work. By Year 2, it’s cookies or sweets. By Year 5/6, the reward is a pizza for a class that behaves well. By Year 7, students are being bribed by their parents, often with money or other tangibles. Is it any wonder that by Year 10/11, when the teacher assigns a research paper, a student’s response is, “What do I get?” or “Why should I do this?” Learners who have been bribed either for good work or good behaviour soon find that the last reward wasn’t enough. A bigger and better one is wanted. Soon, all intrinsic motivation is stifled and the learner is labeled as “unmotivated.” Like a rat in a cage pushing a food bar, the learner’s behaviour becomes just good enough to get the reward. Some researchers, like Alfie Kohn, author of *Punished by Rewards* (1993), believe that all rewards are bad. However, Martin Ford, author of *Motivating Humans* (1992), argues that it depends on whether the reward creates a conflict with the learner’s existing goals. The three most likely times this conflict occurs are in the following situations:

1. If the learner feels manipulated by the reward: “You just want me to give up my guitar lessons.”
2. The reward interferes with the real reason the learner started: “Now that I’m getting rewarded for getting good grades, I care only about what’s on the test, not real learning.”
3. The reward devalues the task and the learner feels bribed: “This class must be pretty bad if they’re giving us a bribe just for attending it.”

Let’s illustrate the third example: a school has problems with truancy and low attendance, so it decides, as an incentive, to reward those who come every day. Now, each student with 100 percent attendance every month gets a reward. The school has worked out an arrangement with local businesses, which includes a free meal at McDonalds or Pizza Hut. Students immediately feel bribed for coming to school and think, “School must be really bad if they feel they have to bribe us.” But the students still exhibit the rewarded

behaviour. "It's stupid, but we'll play the game," they say. But now school is about "working the system," instead of learning.

Rewards Perpetuate the Underachievers

In stressful situations, rat behaviour becomes rigid and stereotyped by repeated, predictable responses that eliminate the participation of the locale memory system. This brain region may be responsible for certain types of memory and spatial mapping. Therefore, if the use of rewards increases learner stress, as research tells us, it may also impair spatial skills and memory formation. Researchers also speculate that the physiological states of anxiety, excessive stress, and threat are linked with impaired thinking and human performance.

Learner Stress and Anxiety...

- Reduces the ability to solve complex problems.
- Reduces learner responsiveness to the environment.
- Increases stereotyped, low-risk behaviour .
- Increases learner attentiveness to and reliance upon external systems of rewards and punishments.

There is evidence linking extrinsic motivation with noncreative tasks, rewards and punishments, memorised skills, and repetitive tasks. But the elements of true learning—heightened creativity and subject interest, enhanced self-esteem, and the ability to reflect—can only be induced by intrinsic motivation. Yet, learners who experience stress and anxiety in their environment will prefer external motivation, meaning a system of reliable rewards. Paradoxically, the less support given for intrinsic motivation, the more the learner seeks rewards. Stressed, anxious learners are more likely to look to others for safe, predictable role modeling, to listen to others for goals, and to increase their own stereotyped, lower-order thinking. This creates a "Catch-22." Rewards, at a low level, work. So, the teacher continues their usage. The learner now is a victim of the "glass ceiling" principle: he or she learns to perform to the lowest level necessary to achieve the reward. Students who have become used to a reward system complain when the rewards are dropped and their performance goes down. The teacher uses this as evidence to say, "I know I shouldn't bribe them, but the system works!"

Here's the problem: the system does work—too well. Then again, holding a gun to someone's head works, too! It will motivate that person to do all kinds of things, but the stress involved is not good for the learner's brain (among other things). Rewards create learners who become preoccupied with "playing the game" rather than actually learning. Why? The inclination to alter perceptual maps, engage in higher-order thinking, and establish complex thematic relationships with a subject is reduced when the brain experiences the anxiety of a reward system.

In the long run, rewards do more damage than good in motivating the so-called underachiever.

Rewards often result in the following: (1) an increase in the psychological anxiety around performance, and (2) an implied certainty of success or failure, but which one? Learners, in an attempt to reduce the uncertainty, choose

tasks with a high degree of predictability (often boring, repetitive tasks). They are also more likely to choose goals set by others.

Rewarded Actions Disappear

Alan Kazdin, once a proponent of rewards, set up a study involving a token economy system in a health care institution in the 1960s. At first, he was excited about the behaviour changes; however, in a review of the study a decade later, Kazdin (1977) changed his mind. "Removal of token reinforcement results in decrements in desirable responses and a return to baseline or near-baseline levels of performance." In other words, when the goodies stop, so do the previously rewarded behaviours. Every learner has his or her own bias that they bring to a particular context. Biases constitute personal beliefs, hopes, expectations, fears, values, and emotions. These are what hold a behaviour in place. In fact, Leslie Hart (1983) says, "To change the behaviour, the biases must be changed, not the behaviour directly."

Because rewards are designed to change behaviour, not biases, any reward-driven activity is likely to fail in the long run.

Teachers often offer rewards for attendance, completed homework, or good behaviour. For example, Pizza Hut instituted a program that rewarded students for reading by offering pizzas. The follow-up may show that the ones who read the most were the ones who were reading already, but just decided to play the game. Many of the students not ordinarily reading before the promotion may not be reading now. Learners can become intrinsically motivated if given a chance, but as long as a reward system is in place, their progress ultimately will be undermined. Reduce or eliminate all rewards and increase the alternatives of acknowledgment, celebrations, increased variety, and quantity of feedback. If rewards are counterproductive in learning, is there ever a time or place for them? If your objective is to motivate people to (temporarily) obey an order, show up on time, or do what they're told, yes, rewards can work, say researchers. But, they are simply changing the specific behaviour in the moment and not the person over the long run. Here's an example of when a reward might be used. A bunch of chairs must be moved to another room. It's the end of the day, and you're tired and hungry, so you ask a couple of students who stay after class if they'd be willing to help you. They say, "No, not really." But you're desperate. So, you say, "How about if I get you both a Coke?" They change their minds and decide it's worth it. The desks get moved. Everybody's happy. The reward was appropriate. Why? It was for something physical, not intellectual.

Alternatives to Bribes

There are other powerful alternatives to reinforcing desirable intellectual and social behaviours with bribes. The three most effective include (1) making learning meaningful, (2) making it relevant, and (3) making it fun.

Intrinsic Rewards to Learning

- Long-term quality performance
- Becoming self-directed learners
- Developing values of caring, respect, and friendliness

- Creativity and higher-order thinking skills
- Honesty, integrity, and self-confidence
- Inner drive and motivation
- The joy of achieving goals
- Giving and receiving peer support and feedback
- Celebrating achievements with positive rituals
- Self-assessing progress
- Giving and receiving positive acknowledgments
- Experiencing a love of learning
- Enthusiasm
- Learners feel in control

Replacing rewards with alternatives gets a bit tricky in schools when the entire system of grading is built on the concept of rewards and punishment. Good grades are a type of reward that lead to teacher approval, parent approval, scholarships, and university entry. How can teachers instruct without bribes and rewards within a system that is so thoroughly entrenched in them? The options outlined above can have an amazing impact. Eventually they will offset the old system, even though it's still in place. Students will soon discover the value of intrinsic motivation and will eventually appreciate the lack of manipulation on your part.

There are, however, many potential "pitfalls." For example, a certificate of achievement may be the form of acknowledgment you choose to give students. This is fine, until a learner takes it home only to be rewarded with money or other tangibles by his or her parents. Then it becomes a reward in spite of your best intentions. Teachers can help educate parents about the long-term negative effects of rewards at an open house, through a letter home, or in parent/teacher conferences. If you are using any kind of reward system, let it run its course and end it as soon as you reasonably can. Wean students gradually from the system rather than stopping it abruptly. Otherwise, you may get a rebellion. Learners will need time to "detox" or "rehabilitate" to overcome the addicting power of the "reward drug."

Learners who have been on a reward system will become conditioned to prefer it over free choice.

Motivation Secrets

The brain loves to learn. One of the most commonly asked questions, from both new and experienced teachers, is "How do I motivate students to learn?" The answer is simple. You don't. The human brain is already inspired to learn. Your students have motivated themselves for much of their life. Their brains have hungrily absorbed information, integrated it, made meaning out of it, remembered it, and used it at the appropriate moment thousands of times. In short, learners who are physically sitting in your class have already (1) motivated themselves to get there, (2) motivated themselves thousands of times, and (3) may or may not be in a motivated state *right* at the moment. The secret is to remove demotivating conditions and replace them with ones that truly motivate and inspire students to learn.

Learning Comes First

Students are inherently motivated to learn (though not necessarily what's taught in school). It's a survival imperative! So, why do some students seem unmotivated in school? William Glasser (1985) says it's really about control. For example, when teachers ask, "How can I motivate my students?" often they are really asking a different question: "How can I control learner behaviour?" Is your teaching paradigm that of a learning catalyst—one who lights a fire for learning—or that of a traditional instructor—one who stands and delivers once students are under control? If you embrace the paradigm of a catalyst, then how to motivate students is a moot question. After all, in a positive learning environment, they are already motivated.

Avoid Labelling

The unmotivated learner is a myth. Rarely are the most inspiring conditions for learning present in a school context. This may explain why so many students have been labelled "underachievers." Moreover, to arrive at school or attend a class requires some sort of motivation, and whether it's positive or negative, it gets them there. Once learners are in their seats, they either feel an interest in learning, or the teacher needs to elicit one. The demotivated learner holds negative beliefs and behaviours that are usually triggered or reinforced by an artificial, unresponsive school environment. Identifying, classifying, grouping, labeling, evaluating, comparing, and assessing these demotivated learners has done little to solve the problem. The research on motivation is both powerful and persuasive. The traditional school environment, for most students, is quite antagonistic toward learning. Conversely, many have been astonished by the learning potential in a non-coercive environment. Each learner is either motivated from within (intrinsic) or from the outside (extrinsic). All of the following conditions decrease the urge to learn and drive away any possibility of intrinsic motivation:

There is no such thing as an unmotivated learner. There are, however, temporary unmotivated states that schools, teachers, or students can themselves trigger.

- Coercion, control, and manipulation
- Weak, critical, negative, or **competitive relationships**
- Infrequent or vague feedback
- Outcome-based education (unless learners generate outcomes)
- Inconsistent policies and rules
- Top-down management and policy-making
- Repetitive, rote learning
- Sarcasm, put-downs, and criticism
- The perception of irrelevant content
- Boring, single-media presentations
- Reward systems of any kind
- Teaching in just one or two, rather than all, of the multiple intelligences
- Systems that limit reaching personal goals
- Responsibility without authority
- Hopelessness in achieving academic success

Should the environment be all smiles, hugs, and easy grades? Absolutely not. The brain thrives on challenges and variety. Stanford biologists separated amoebae cultures into three petri dishes. One was the control group, another received abundant food, light, and heat, and the third petri dish was given just enough food, light, and heat to survive while randomly varying the amounts. You might guess the results: the third amoebae culture developed the strongest health and lived the longest. Can you apply this to our own environment? Many successful teachers already do. They never punish the students nor do they make everything so easy that they don't grow. When learners are intrinsically challenged to develop themselves, they can excel.

Intrinsic Versus Extrinsic Motivation

Many of the characteristics of intrinsic or extrinsic motivation originate from the student's home life. Parents who bribe their children, who role model laziness, who exhibit a lack of curiosity, and who avoid new learning contribute to the problem. While we have little influence on home factors, we can influence factors in the learning environment. Many students who seem "unmotivated" in the classroom excel on the sports field or at their after-school job where individual efforts are visible and appreciated by teammates or co-workers. Though competition and rivalry are not absent in these examples, they are offset by shared goals and successes. When a student drops out of school, they are not unmotivated; they are probably seeking a more responsive environment promised by the world outside of school.

Ways to Encourage Intrinsic Motivation

- **Help students learn to control their environment.**
- **Encourage stimulation, activity, and patience .**
- **Discourage feelings of inferiority .**
- **Provide choices that tap into learner goals.**
- **Build high self-concept and positive beliefs.**
- **Offer challenges, problems, and novelty.**
- **Maintain high expectations of success.**
- **Role model satisfaction from achievement.**
- **Create situations in which learning is the by-product.**
- **Stimulate emotional intensity in learning through debates, music, drama, and role-play.**

Other strategies can easily be developed in a learning context and many are relatively simple to employ. When students are given control over the content and process of their learning, motivation goes up. It is important to allow them to make choices "about personally relevant aspects of a learning activity." Students need opportunities to align self-determined goals with instructional goals. In addition, learners who tend to focus more on fun and friendships are more easily engaged in activities involving self-determination and peer interaction. A student is often willing to work on a team project because there's another person on the project that they like and want to get to know better. Provide ways to meet both personal and instructional goals. In

other words, the more ways that learning objectives can serve the student's own agenda, the better. Help learners become aware of their own personal, academic, health, social, athletic, and career goals. Build into your learning activities ways for students to show off, meet new people, be an expert in something, grow, get in shape, or become well respected.

Sources of Intrinsic Motivation

Give Learners Control and Choice

Let learners control as many elements as possible within the framework you provide. For example, allow them to choose how they will learn a topic, with whom they will learn it, when and how they'll be assessed. You provide the appropriate structure and guidelines, but allow creativity and choice. Learners are subsequently able to express themselves and feel valued—resulting in less stress and more motivation .

Meet Learner's Needs and Goals

Make sure your curriculum and methods meet the perceived needs and goals of your learners. Because the brain is biologically designed to survive, it will choose what it needs learn. Make it a top priority, therefore, to discover what *needs* your learners have and find ways to meet them. For example, 6-year-old students have higher needs for security, predictability, and teacher acceptance than a 14-year-old student. The teenager is more likely to need peer acceptance, a sense of importance, and hope. An 18-year-old learner is more interested in autonomy and independence. Use what's appropriate for the age level of your students.

Engage Strong Emotions

Engage emotions productively with compelling stories, games, personal examples, celebration, role-play, debate, rituals, and music. We are driven to act upon our emotions because they are compelling forces in our decision-making.

Provide Group Work (See Cooperative Learning)

Use friendships, partners, and group work to encourage interdependence. Learners do better in an environment with positive social bonding, and they are more motivated when they get to work with friends in groups or teams. This interdependence reduces helplessness and stress.

Engage Curiosity

We all know that inquiring minds want to know. This is the nature of the human brain. Keep engaging curiosity; it works! Newspaper tabloids and electronic tabloids have played off our curiosity for years. Witness all the stories about Elvis, aliens, celebrities, freaks of nature, and UFOs. In your classroom, use leading questions, mysteries, special hooks, and experiments.

Encourage Good Nutrition

Better nutrition means better mental alertness. Provide suggestions for students, or parents, or both. Suggest specific brain foods (nuts, leafy dark green vegetables, apples, eggs, fish, and bananas). Encourage learners to take multivitamin and mineral supplements.

Use Multiple Intelligences

Multiple learning pathways, or intelligences, can really hook learners. These approaches include spatial, kinesthetic, interpersonal, verbal-linguistic, intrapersonal, musical-rhythmic, and mathematical-logical. When learners get

to express *what* they know and *how* they know it, they are more motivated to continue to grow.

Share Inspirational Stories

Tell true stories about other students that overcame obstacles to succeed. Any famous ones? Any who have made a major contribution? These stories help form a mythology of success.

Provide Acknowledgments

These include assemblies, certificates, group notices, team reports, peer sharing, compliments, and “good job” notes. These give learners positive associations that continue to fuel further learning.

Provide Frequent Feedback

Use several avenues of feedback. If you rely only on yourself to serve this purpose, students aren’t likely to get enough. Use peer assessment, team charts, group discussions, peer teaching, projects, role-play, non-verbal feedback, self-assessment, and oral games. Make sure that every single learner gets some kind of feedback, from you or someone else, at least every 30 minutes. The best way to motivate the brain is with information—provided immediately and dramatically. That’s what hooks kids into video games and adults into gambling; they continually get feedback, and the feedback motivates them to continue.

Manage Learner States

Role model behaviour that reflects a strongly motivated attitude. Learn to read and manage learner’s states. Even good learners have unmotivated periods that you can influence. Change activities often, use strong questions and multi-media approaches. Never let a student remain in a bad or unmotivated state for long.

Provide Hope of Success

Learners need to know that it’s possible for them to succeed. Regardless of the obstacles or how far behind they are, students must have hope. Every good game show, from Jeopardy to Wheel of Fortune, keeps the players hooked in with the chance of success, even when they’re far behind the other players.

Role Model the Joy of Learning

Enjoy your work and come to your class ready share what you have learned every day. Because over 99 percent of all learning is nonconscious, the more you get excited about learning, the more motivated and excited your learners are likely to become.

Celebrate Learning

Include peer acknowledgment, parties, food, high-fives, class cheers, etc. These create the atmosphere of success and can trigger the release of endorphins that boost further learning. Do not use celebrations as a bribe. They are most effective when conducted spontaneously and randomly.

Provide for Physical and Emotional Safety

Insure that your classroom is emotionally safe—that students feel they can make mistakes and not be chastised for it. Insure students’ physical safety from hazards or other students, when necessary. Make it safe to ask any question. Meet physical needs for lighting, water, food, movement, and seating.

Instill Positive Beliefs

Reinforce a learner's ability to succeed and tell them they can accomplish any task. Discover what their beliefs are as soon as possible and work to affect them positively. Do this through affirmations, success stories, indirect references, posters, and your interactions with them. None of the strategies mentioned above require a financial investment. You don't have to buy anything to implement them. Although it might require more energy initially to create a climate of intrinsic motivation, it will pay off in the long run. Teachers who rely on extrinsic motivation may be vastly underestimating three things: (1) the power of their influence, (2) the desire of the learner to be intrinsically motivated, and 3) the long-term ease of instruction when learners are intrinsically motivated. Take your time. Implement just one motivator per week. Soon, you'll find miracles taking place everyday, including a classroom full of excited, confident, and motivated learners.

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