



In Praise of Praise

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Many Kagan Structures prescribe praise; during our T2TUK/KaganUK workshops we encourage teachers to have teammates praise each other and to include celebrations in their classrooms and within teams. We advocate and model use of team handshakes, high-fives, pats on the back, and even hugs. We are sometimes challenged. Many educators are concerned that all forms of positive feedback, including praise, will erode intrinsic motivation—that, in effect, students are punished by rewards¹. Some are so concerned about the possible negative impact of any form of positive feedback that they are inhibited from telling a student how much they appreciate the student's work.



In this article, I want to show that conclusion is an overgeneralisation. The research on praise, rewards, and motivation, simply does not support the conclusion that we should avoid praising our students. The research also does not support the notion that we should keep our students from praising and complimenting each other's work. In fact, the research supports exactly the opposite conclusion: We should encourage praise and celebrations in our classrooms; they enhance motivation!

What the research does establish is that rewards can have either a positive, neutral, or negative effect on intrinsic motivation, depending on the type of reward and how it is given. In the words of Deci, the world's leading expert on the effect of rewards on intrinsic motivation, From our earliest studies of reward effects (Deci, 1971, 1972a, 1972b)² through our more recent studies aimed at differentiating reward contingencies (Ryan, Mims, & Koestner, 1983)³ we have predicted and found negative, neutral, and positive effects of rewards.⁴ It is tempting to say either, "Rewards are good" or "Rewards are bad." It turns out, however, that both statements are too general. Certain kinds of rewards, given in certain ways enhance intrinsic motivation; other kinds of rewards, given in other ways, erode intrinsic motivation. Thus, as educators, we need to dig deeper, to be more differentiated in our thinking about rewards and motivation. We want to avoid undermining intrinsic motivation, but the way to do that is not to avoid all positive feedback — rather we need to avoid giving certain kinds of rewards in certain kinds of ways.

The Geometry Scenarios

Let's contrast two scenarios:

Scenario 1:

A student loves solving geometry problems. As the student is completing a problem, the teacher walks by and says, "You are really fully engaged; your proofs are clear and logical!" The student was not expecting the praise, and certainly was not doing the problem in order to get the praise. The student experiences a flush of pride.

Scenario 2:

A student loves solving geometry problems. The teacher announces that for each problem students solve they will receive a token. The tokens can later be traded for treats — desired candy and other rewards. The student works hard, solving many problems, and takes pride in earning many tokens.

Later we assess the intrinsic motivation of the two students. We want to determine how motivated the two students are to solve geometry problems when there are no extrinsic rewards, no tokens, or candy. We test the students in two ways: 1) we give them a free choice to do more problems on their own; and 2) we ask them how much they like solving geometry problems, how interested they are in geometry. If the results follow the pattern established by hundreds of studies of the relation of reward and intrinsic motivation, we find the student who got the unexpected verbal compliment has increased her intrinsic motivation whereas the student who received the expected tokens decreased her intrinsic motivation.

The tokens motivated the student in the moment, and may have even caused the student to do more problems than otherwise, but when the tokens were absent the motivation was less than if no tokens had been given. Why is this important? If our only goal were to get the student to solve geometry problems, we might well persist in giving tokens and rewards. But as educators we have a higher goal: we want to promote intrinsic motivation, to promote a love of learning, to foster life-long learners. With the change rate rapidly increasing, only students who are motivated to continue learning on their own will compete well in the job world of tomorrow. Intrinsic motivation predicts life-long success.



How can we explain why the tokens decreased intrinsic motivation while the praise increased intrinsic motivation. We can go a long way toward understanding which rewards and which way of giving rewards will increase or decrease intrinsic motivation, if we understand three key concepts.

Three Key Concepts

As teachers, if we are to foster the love of learning and have students who want to learn on their own, we need to understand the relation of rewards and intrinsic motivation. Three key concepts are critical for understanding what kind of rewards lead to increased intrinsic motivation v. decreased intrinsic motivation. The three concepts are attribution shift, perceived competence, and perceived interest.

Attribution Shift. An attribution shift describes a shift in what we think is the cause of behaviour. The critical question: Why am I performing? The student in Scenario 1 did not experience an attribution shift. If asked why she/he was doing geometry problems, the student would respond, I enjoy doing the problems. The student in Scenario 2, in contrast experienced an attribution shift. Before the tokens were introduced, the student did the problems for the pleasure of solving the problems. After consistently receiving tokens for doing the problems, the student began to solve the problems for the tokens. If asked at that point why she was doing geometry problems, the student would say, “To earn tokens.” There was an attribution shift. Before the tokens were introduced the student attributed her motivation to the pleasure intrinsic in the task; after receiving tokens for each problem, the student attributed her motivation to the tokens, to rewards extrinsic to the task. When the tokens were later taken away, the student found less reason to do problems. She was working for tokens, not for the pleasure of solving problems, so when there were no tokens, there was less reason to solve the problems. Extrinsic rewards can cause a attribution shift that erodes intrinsic motivation.

We may ask, “Well, isn’t a compliment a reward? Why did the praise not erode intrinsic motivation?” The research has shown that verbal praise tends to increase intrinsic motivation, not decrease it. There are several plausible explanations. The first explanation is that verbal praise is usually unexpected. Note, the student did not know the teacher was going to walk by and drop a compliment. So the student could not think she was doing the problems for the praise. There are other reasons why verbal praise has the opposite effect as do expected, tangible rewards, and we will get to them as we explain the remaining two key concepts.

Competence Shift. Perceived competence describes how good we think we are at something, how competent we feel. The critical question: How skilled am I? We are more intrinsically motivated to perform tasks we feel we are good at. I feel I have some talent at writing, but I am a terrible car mechanic. When I get up in the morning, I am motivated to write, but am appalled at the idea of tinkering with my car motor. My son, Simon, is the opposite: He is a talented mechanic, but has little skill as a writer. He gravitates to the car motor, not the word processor.

If I doubt that I can succeed, my perceived competence is low and I am less likely to tackle a learning task or persist in the face of difficulty. If my perceived competence is high, I will more likely try to master difficult tasks and persist in the face of difficulty. To some extent then, perceived competence creates a self-fulfilling prophecy: When I feel competent in a task, I persist in the face of difficulty, and complete the task, fulfilling my prophecy; when I don't feel competent, I don't persist, fulfilling that prophecy. We live up to, or down to, our own expectations.

Competence shifts, changes in your perceived competence, help explain intrinsic motivation. If someone tells you that you are good at something, and that increases how competent you feel, your perceived competence has shifted. Anything that makes you feel more competent in a task increases your motivation to engage in the task, especially as task difficulty increases. This goes part way toward explaining why the praise in Scenario 1 increased intrinsic motivation whereas the tokens in Scenario 2 decreased intrinsic motivation. The student receiving the praise, "You are really great at that" probably felt a bit more competent afterwards. In contrast, the student who received tokens to perform the task, might well have felt a bit less competent, concluding, "I must not be that great at this if the teacher needs to bribe me to do the problems."

Task Interest Shift. Task interest describes how intrinsically interesting or motivating a task appears. The critical question: Does this task look interesting? If someone says, "That task is boring," or we begin a task and find it is not challenging or interesting, our perceived interest in the task likely decreases. If someone says, "That task is challenging and fun," or as we begin a task we find it keeps our interest, our perceived interest in the task likely increases.

Task interest shifts are the third key to explaining the different impact of the verbal comment and the tokens in Scenarios 1 and 2. In Scenario 1, when the teacher said, "You are really fully engaged," the student became more aware of how interested she was in the geometry problems. Anything that shifts task interest so a student perceives a task as more interesting, by definition increases intrinsic motivation. In contrast, if a teacher offers tokens to perform a task, the student is likely to think, "This task must be boring if the teacher needs to offer bribes to get me to do it." Having decreased task interest in this way, there is less motivation to do the task later when the tokens are absent.

Three Critical Questions

Given that some kinds of rewards and some ways of giving rewards will make learning more intrinsically interesting while other ways will make learning less intrinsically motivating, as educators we need to ask the critical questions:

1. "When will students make an attribution shift?"
2. "When will students shift their perceived competence?"
3. "What makes our learning tasks appear more or less intrinsically interesting?"

We need to know which rewards and which ways of giving them undermine intrinsic motivation and which rewards bolster intrinsic motivation.

What the Research Tells Us



Analysis of hundreds of carefully designed research studies on the relation of reward to motivation gives us clear answers to our critical questions. To cull out the reliable findings from among the hundreds of studies, researchers have turned to meta-analyses — studies that look at which findings hold up across the many studies conducted to date. One meta-analysis not only examined 128 studies; it examined the consistency of findings across various meta-analyses!⁵

The general finding across all of these studies indicates that only certain kinds of rewards, given in certain ways, erode intrinsic motivation. Others have no effect. And some actually have a positive effect. The results of these studies are summarised in the Table: Rewards and Intrinsic Motivation.

Rewards and Intrinsic Motivation

Type of Reward	Effect on Intrinsic Motivation
Engagement-contingent, tangible rewards	Decreased Intrinsic Motivation
Completion-contingent, tangible rewards	Decreased Intrinsic Motivation
Competitive Rewards	Decreased Intrinsic Motivation
Unexpected rewards	No Change
Rewards for otherwise boring tasks	Usually No Change
Rewards not contingent on task performance	No Change
Positive feedback and praise	Increased Intrinsic Motivation

Interpretation of Results

These results can be predicted and understood based on the three key concepts: Attribution Shift, Perceived Competence, and Perceived Task Interest.

Rewards that Erode Intrinsic Motivation

- Engagement-Contingent, Tangible Rewards.

Example: A teacher says, “I will give you a gold star when you begin working on your math worksheet.” *Effect:* Intrinsic motivation eroded. *Explanation:* The student makes an attribution shift. As the student begins doing the math worksheet, the student is thinking, “I am doing this for the gold star, not because I like math.” Further, the student feels less competent and perceives the task as less desirable: “The teacher had to bribe me to do this task. Either the task must not be intrinsically interesting, or the teacher must think I am not very good at it and that I need to be bribed to do it.”

- Completion-Contingent, Tangible Rewards

Example: A teacher says, “I will give you a piece of candy when you complete your math worksheet.” *Effect:* Intrinsic motivation eroded. *Explanation:* The student makes an attribution shift, thinking, “I am doing these problems to get a piece of candy, not because I like math.” Further, the student feels less competent and perceives the task as less desirable: “The teacher had to bribe me to complete this worksheet; the teacher must know it is not very interesting, or must think I that I need to be bribed to do the problems.”

- Competitive Rewards

Example: We say to our class, when we grade the homework, the team with the highest total scores will get to line up first for recess (or get points toward recognition or reward). *Effect:* Intrinsic motivation eroded. *Explanation:* Students likely make an attribution shift: “We are doing the homework in hopes of a reward, not because it is interesting.” Further, the students likely



perceive the homework as less intrinsically interesting — “The teacher has to give extrinsic rewards to get us to do the homework; it must not be much fun.”

There are other ways competitive rewards undermine motivation. When we pit students against each other we create winners and losers. With eight teams in the class, each team knows the probability of winning is slim. Further, after not winning for several rounds, students begin making defensive attributions: “We didn't care about doing well.” Why? It is much easier to say, “I don't care” than to say, “I really would like to win, but can't.” In addition, we undermine motivation when we set students against each other because we erode peer support. Each team knows the other teams are not hoping for their success. This is quite in contrast to cooperative reward situations in which the whole class receives a reward if the sum of all the scores is high. In that case, each student is buoyed by the support of all the others; everyone wants everyone else to do as well as possible.

Rewards that Neither Increase nor Decrease Intrinsic Motivation

• Unexpected Rewards

Example: The teacher says, “I know you were not expecting it, but since you did so well on that assignment, everyone will get to play a Silly Sport!” *Effect:* Intrinsic motivation not changed. *Explanation:* The students were not expecting a reward so did not say to themselves they were doing the assignment for the reward — there was no attribution shift. Because the reward was not announced prior to task performance, it had no impact on either perceived competency or perceived task interest.

• Rewards for Otherwise Boring Tasks

Example: The teacher has a learning task the teacher knows is not at all interesting for any of the students and says, “You will each receive points for completing this task.” *Effect:* Intrinsic motivation usually not changed. *Explanation:* When there is no intrinsic motivation to begin with, intrinsic motivation is not decreased by rewards. **Note:** The same exact words, “You will each receive points for completing this task,” will have a different impact on intrinsic motivation depending on whether or not the task is intrinsically interesting to begin with!

The effect of rewards on boring tasks will depend in part on whether or not once they engage in the tasks students will discover interest in the tasks. In some situations, extrinsic rewards can increase motivation for otherwise uninteresting tasks. Why? The reward can induce the student to engage in a task they otherwise might not perform. The student may then discover intrinsic rewards in the task. For example, a student may perform what appears to be a boring math worksheet only in hopes of an extrinsic reward, but then while doing the problems discovers she actually is skilled in that kind of problem and enjoys solving the problems.

The effect of rewards on boring tasks can also depend on whether the rewards create an interest shift. In some situations, extrinsic rewards may make the task appear even less interesting, decreasing intrinsic motivation to do the task. The student may think, “I thought this might be a boring task, but I see it must be a really boring task — the teacher has to bribe me to do it.” Only if we are certain there is no intrinsic motivation at all to begin with are we safe in offering tangible expected rewards for task engagement or task completion.

• Rewards Not Contingent on Task Performance

Example: The teacher brings in a treat for the class, saying, “I thought it would be fun for us to all enjoy a treat today.” *Effect:* Intrinsic motivation not changed. *Explanation:* By simply giving our students rewards unrelated to task performance, we do not decrease intrinsic motivation. Students do not make an attribution shift: They don't say, “Oh, we are doing our work for the treat.” They simply say, “We have a kind teacher.” Since the reward is unrelated to a specific task it has not impact on perceived competence or perceived interest.

Non-contingent rewards, however, may make class more interesting and may change students' perception of the teacher. Because they are unexpected, non-contingent rewards create novelty. Further they increase liking for the teacher and make for a more positive class tone — all of which may have a favourable impact on learning.

Rewards that Increase Intrinsic Motivation

- Positive feedback and praise

Example: The teacher walks by while a student is working on a worksheet and says, “Your topic sentences are very descriptive.” “That is a creative proof.” or “You are really fully focused on your work.” *Effect:* Intrinsic motivation increased. *Explanation:* The research reveals that students do not respond to praise and positive feedback in the same way they respond to a token, sticker, or money. They see a token, sticker, or money as pay for a job. Soon they make an attribution shift, thinking they are working for the tangible, extrinsic reward. They respond to praise quite differently, taking it not as pay, but rather as an expression of appreciation from another



person. The form and timing of praise cannot be predicted; praise always has an element of surprise. Given that it is unexpected, it does not decrease motivation. Students do not think to themselves they are working for the praise, rather they simply take it for what it is: It is not pay; it is a compliment. Further, when the teacher tells the student their topic sentences are very descriptive, their handwriting is clear, or their proof is creative, it is likely their perceived competence will increase, which increases intrinsic motivation. When the teacher tells the student they are fully focused on a task, it is likely the student's perceived task interest increases. The student thinks, “If I am really fully engaged by this task, the task must be interesting.” The praise is not perceived as an attempt to control their behaviour, but rather communication about their competence, or about their level of interest.

An important distinction: Praise can be evaluative or descriptive. Evaluative praise (Great job! Excellent! You are good at that!) runs the risk of establishing the teacher as the locus of evaluation, disempowering the student. The teacher, not the student is the judge. Evaluative praise communicates the feelings of the teacher; it is subjective. In contrast, descriptive praise communicates something about the work (You capitalized all the proper nouns. You supported your hypothesis with three types of research! You showed all your work on those algebra problems.) It communicates appreciation by the teacher, but it is objective feedback, allowing the student to self-evaluate.

With evaluative praise, students are more likely to become extrinsically motivated, working for the praise of the teacher. With descriptive praise, students are more likely to become intrinsically motivated, working toward excellence.

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In Praise of Praise

Praise and celebrations are different than tangible, material rewards. Steven takes additional pride in his work when a teammate praises him, “Excellent job Steven!” We have intentionally designed many cooperative learning structures to include praise and celebrations because of the numerous positive benefits they hold for our students and our class. We harness a powerful social force when we get students praising each other and celebrating successes. Think about the last time you were complimented. How did you feel about yourself? How did you feel about the person who gave you the

compliment? How did you feel about the task? We boost students' self-esteem, liking for learning, and liking for others by including praise and celebrations in our team learning structures. We make the classroom atmosphere a more positive learning environment; students feel more secure, are more likely to participate, and are more willing to take risks. We develop in students the habit of mind of looking for good in others. We transform classroom norms. Instead of being ridiculed as a know-it-all or worse, students are appreciated for their knowledge and skills.

Recent brain research corroborates the argument for inclusion of frequent praise and celebrations in the classroom. James McGaugh,⁶ perhaps the world's leading expert in memory research, elaborates the principle of retrograde memory enhancement. What he and his co-workers have established is that emotion is a signal to the brain, "This is worth remembering!" Thus when we teach in ways that generate emotion in our students our lessons are better remembered. If they praise each other after solving a problem, the praise creates emotion so the solution is better cemented into memory.

Implications for Educators

One implication of this analysis is that as educators we need to be cautious about over-generalisations. While it may be tempting to say either, "Rewards are good" or "Rewards are bad," either statement is too general. Certain kinds of rewards (expected, tangible, and competitive rewards) given in certain kinds of ways (contingent on engagement or performance) undermine intrinsic motivation. Other kinds of rewards (unexpected rewards, verbal praise, and celebrations) increase intrinsic motivation. We need to be careful not to undermine intrinsic motivation, but the way to do that is not to avoid all praise and rewards. We need to be more thoughtful. By careful use of praise and compliments we actually increase intrinsic motivation.

Perhaps the single question that best guides us is simple: Why are my students performing? If they are performing for a sticker, a score, or a grade, we need to re-evaluate how we have structured our class. If instead, they say they are performing to learn or because the learning tasks are interesting, we know we are on the right track. Praise and celebrations, not given as bribes but given as compliments, enhance rather than detract from motivation and help us create a caring community of learners.

Coda

As I was writing this, my six-year-old granddaughter, Mikayla, came to get me. "Grandpa, it is time for breakfast. Your eggs are getting cold." I was reluctant to get up as I was in the middle of a thought. "Really cold," she insisted. As we sat down to eat, intrinsic motivation was still on my mind. "Mikayla, what is something fun?" I asked. "Hopscotch," she replied, without hesitation. "What makes it fun?" "You get to hop! And you get better. You learn not to step on the lines."

Mikayla has a lesson for us: Intrinsic motivation is related to appropriate level of task difficulty. If a task is too easy, there will be little perceived task interest. If a task is too hard, there will be little perceived competence. To increase intrinsic motivation, we need to find or create developmentally appropriate tasks for our students — learning experiences that are not too difficult, not too easy — tasks that match difficulty with skill.

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