Learning Independence Continuum

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We know that the attitudes, dispositions and beliefs of the learner play a key role in learning success. Learners who are interested in what they are learning are more likely to remember what they have learned. Learners who act on their interest and behaviorally, emotionally, and cognitively engage in learning activities are more likely to build understanding. Learners who see themselves as having the power to learn and succeed are more likely to focus on selecting the best strategies, persisting until they prevail, and marshaling the resources that will be most helpful to achieving their goals. Learners who see learning as something they do for themselves, rather than adults, and as something they own and control, are more likely to see meaning and purpose in their learning efforts. Further, learners who possess all of these characteristics tend to be less dependent on others to stimulate, manage, organize, and press them to learn. In short, they are more likely to become independent learners.

What may not be as clear are the relationships among these learner characteristics and the power they hold to create highly proficient, consistently motivated learners. We too often think about how to motivate learners, engage them in their learning, build self-efficacy, promote ownership for learning and foster independence as separate efforts. Consequently, we focus on each characteristic in isolation, hoping that somehow they will lead to learners that are persistent, independent problem-solvers.

Yet, there exists among these characteristics potential synergistic power that can make a determinative difference in the learning and long-term success of our learners. The presence of motivation gives us access to the attention and potential energy of the learner, regardless of whether the motivation is inherent or ignited by an external source. When motivation is acted upon, it becomes engagement; engaged learners participate in activities, attempt to understand and act on the challenge or learning task. The process of engaging in learning tasks positions learners to see the connection between their efforts and strategies and the learning results they experience. This understanding is key for learners to build a sense of self-efficacy, or power to have an impact on their environment, overcome challenges and influence their own success. As learners gain confidence and understanding about their potential to influence and even determine learning outcomes through effort, strategy and resources, they often choose to take more ownership for their learning, a key to long term learning success. The cumulative impact of tapped motivation, engaged learning, self-efficacy and ownership for learning equips learners with many of the crucial tools to become independent – the life-long outcome formal education seeks to achieve.

When we place learners at the center of our work and focus on the development of these five key learning elements, we make our work easier and more rewarding as learners increasingly become owners, co-workers, and co-designers of their learning. More importantly, we give our learners the

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power to choose, influence, change and grow without having to depend on educators, parents, bosses, and others in positions of authority to direct their learning activities and life paths.



Still, accomplishing this important work with our learners is not something that will happen by chance for most learners. Building and tapping motivation, engagement, self-efficacy, ownership and independence requires an understanding of the dimensions of each element, how they contribute to learning, the strategies we can use to nurture each element, and how each element can prepare learners for the next stage along the continuum toward full learning independence. In the following sections, we will briefly examine each element and how we can employ and leverage the element to support and position the learner for the next level of understanding and power and move closer to full learning independence.

Motivation

Motivation is the presence of an emotional or psychological inclination or attraction to a task, idea, challenge, or understanding. Interest, curiosity, sense of challenge, and desire to understand are among the behavioral signs indicating that motivation is present. Particularly related to education, learner motivation "'refers to a student's willingness, need, desire, and compulsion to participate in, and be successful in, the learning process'" (Bomia et al. in Brewster and Fager, 2000, p.4).

Role in Learning

Motivation is a key entry point for stimulating learning. We typically think of two types of motivation: intrinsic and extrinsic. Intrinsic motivation includes the desire to learn, understand, make sense, find meaning and purpose, gain mastery, and work autonomously (Pink, 2009). Extrinsic motivation comes from external rewards such as grades, stickers, adult approval and other things not directly related to the object of learning.

Intrinsic motivation is more likely to tap positive emotions and prior learning and has been shown to lead to better recall and retention (Lumsden, 1994; Voke, 2002). Conversely, when extrinsic motivation is used to stimulate learning, learners typically understand less, retain less, and do not show lasting commitment to learning. In fact, when extrinsic rewards are withdrawn, they can actually undermine future learning (Kohn, 1995). The key understanding for educators is to focus on strategies that build

intrinsic motivation in learners to retain their natural sense of curiosity to learn, rather than undermine this force by incenting them to comply or achieve an external reward, such as a grade.

Building Motivation

Ames (1992), describes three classroom conditions that can tap learner motivation: tasks and learning activities that are relevant and meaningful, rewards and assessment, and finally, autonomy and learner choice.

The most direct way to tap learner motivation is to know and consult the individual and design tasks and learning activities in response. Learners come to us with a variety of interests, areas of curiosity, drive to understand, and openness to challenge. By tapping natural or inherent areas of motivation, we can harness learner attention and effort for learning. However, a pre-condition for this approach is to know what the learner finds interesting, meaningful, and worthwhile.

Educators can also design activities to stimulate interest, curiosity, and challenge using intriguing questions, interesting observations, unexpected events, and surprising facts. For example, a child may not demonstrate a natural motivation to solve math problems from the book, but relating the same mathematical challenge to their favorite baseball team can stimulate their intrinsic motivation. Indeed, Kohn (1995) challenges us to think about the child who "is not" intrinsically motivated:

> "The trouble may be more with what we're asking than with their lack of interest. If children are required to multiply rows of naked numbers, memorize a bunch of facts, or slog through sodden textbooks – things that few members of our species would find interesting – then it is no wonder adults resort to offering bribes (and threats)."

A second approach to building motivation is to use rewards in relation to "student effort, on progress in relation to short-term goals, and on meaningful aspects of performance" (Ames, 1992). However, to be effective as a learning motivation tool, the extrinsic incentive reward needs to be withdrawn as soon as intrinsic motivation has been stimulated and can be sustained.

Lastly, devolving control and authority in the classroom to learners has been supported across a number of studies as effective in developing learners' intrinsic motivation (Ames, 1992). Learners who do not have a voice or choice in what happens in class are more likely to be unmotivated. In this situation, school is done to them (Kohn, 2010). However, there are important strategies to consider when creating greater learner voice and autonomy in the classroom: learners must be allowed to make choices that are meaningful and also generate options, not simply choose from those given to them by adults. Learners should be given the opportunity to make decisions with their peers, not only individually. Autonomy does not mean learner-run schools – the educator still plays a critical role in co-developing and guiding the learner (Kohn, 2010).

How Motivation Leads to Engagement

Some of the motivation and engagement literature treats these two concepts as one in the same. However, there is an important distinction. Russell et al. (2005) provide the picture of a motivated but disengaged learner, citing a study of middle school students who "recorded high, positive scores on a scale concerning their own motivation situation, but indicated that they found only a low level of interest in their classroom work" (p. 3). The connection between motivation and engagement is tight

and progressive. “Motivation is about energy and direction, the reasons for behavior, why we do what we do. Engagement describes energy in action, the connection between person and activity” (Russell, Ainley, and Frydenberg, 2005, p. 1).

Learners are engaged when they act on tasks that are interesting, challenging, and important to them – all strategies that were discussed as methods to tap learner motivation. It follows that if learners are motivated intrinsically, engagement is likely to follow. The presence of motivation makes engagement easier to nurture since the emotional and psychological inclination is already present. The progression from motivation to engagement is generally a matter of stimulating and supporting learners to put their motivation into action.

Engagement

Engagement occurs when learners make a psychological investment in learning (Newmann in Voke, 2002) and take pride in learning and understanding for their own benefit, not just for grades. Active learner engagement inspires persistence even in face of difficulty (Schlechty, 2001). Engagement is motivation in action.

Role in Learning

Engagement typically is categorized as behavioral, emotional or cognitive in nature. Each type of engagement can support learning if the activities involved are aligned with key learning goals and contribute to understanding, meaning making and mastery. Learning is more likely to be supported by a focus on the process necessary for goal mastery over product outcomes, as products are more likely to be a by-product of learning rather than learning itself (Ames, 1992).

Learners who are engaged have more focus, are better able to internalize content and are more willing to carry out learning activities. Disengaged learners are more likely to cause disruption or not complete assignments. Higher levels of engagement have also been linked to lower numbers of suspensions from school and higher academic grades (Betts et al., 2010).

Learners who are engaged in school tend to have better attendance, exhibit fewer behavior problems, are more likely to complete learning tasks, and generally do better behaviorally in school (Schlechty, 2011). Learners following these behavior patterns are less likely to be removed from classrooms and other environments where teaching and learning are occurring and are more likely to pay attention and make the effort necessary to absorb academic content and build intended skills.

Building Engagement

The quality of the work with which learners are presented can influence levels and strength of their engagement (Schlechty, 2002). Schlechty proposes ten characteristics of work that can enhance the quality of work presented to learners and support engagement:

1) Content and substance,
2) Organization of knowledge,
3) Product focus,
4) Clear and compelling product standards,
5) Safe environment,

6) Affirmation of performance,
7) Affiliation,
8) Novelty and variety,
9) Choice, and
10) Authenticity.

Strong, Silver, and Robinson (1995) surveyed learners about the type of work they find engaging. Learners reported that the work they found most engaging allowed creativity, sparked curiosity, presented opportunities to work with others, produced feelings of and held the potential for success, and was challenging. Conversely, they pointed to work that is repetitive, forced by others and required no thinking as disengaging. Keller (2000) argues that there are four conditions necessary for a person to be fully motivated/engaged: Attention, relevance, confidence, and satisfaction – the ARCS model.

Due to the tight linkage between (intrinsic) motivation and engagement, it is no surprise that the literature poses much the same strategies to build engagement as it does to tap learner motivation. Additionally, Voke (2002) summarizes other research, noting that engagement can be built through curriculum and goals that are appropriate and achievable for each learner, constructive and frequent feedback, and safe environments that build a sense of community.

How Engagement contributes to self-efficacy

The experience of being so engrossed in one's task that we lose track of time and find it difficult to stop is known as "flow" – and could be thought of as the learner being fully engaged. One of the seven characteristics that Csikszenthmihaly describes as being present when a person is in flow is knowing that the activity is doable (TED, 2004). This is a key factor in self-efficacy, and demonstrates the interconnectedness of engagement and self-efficacy.

When learners are engaged in learning with focus, sustained effort, on a task just outside of their current skill level – engagement often results. When learners continue to find success and experience results in such activities, increased self-efficacy often is the result. Learners begin to see the connection between effort and results.

As a contrast, Russell et al. (2005) describe learned helplessness as a form of disengagement. "Students who experience repeated failure may come to believe that nothing they can do will alter the situation" – the opposite of self-efficacy.

Self-efficacy

Self-efficacy is generally described as a set of beliefs about the learner's capacity to marshal and maintain the efforts necessary to achieve a selected goal (Bandura 1986, 1991). In the case of academic self-efficacy, it is the learner's belief he or she can control their academic outcomes by the strategies they employ, effort they exert, and resources they engage (Wigfield and Wagner, 2005).

Role in Learning

The presence or absence of strong self-efficacy often determines whether learners will engage in challenging tasks where the outcome of the work is not certain. A low level of self-efficacy can result in

learners refusing to try, believing that he or she is not inherently capable of succeeding. For these learners, refusing to try is preferable to feelings that result from failure. It can also lead learners to prematurely abandon efforts where struggle is required, resulting from a belief that if success is not immediately attainable, it probably is not ultimately attainable. Conversely, a high level of self-efficacy leads learners to persist in the face of challenge, to continually try different approaches and strategies to overcome obstacles, and search for resources that will provide leverage and advantages necessary to achieve success.

Associated with self-efficacy is the concept of fixed versus developable intelligence. Learners who are convinced that intelligence is something one either does or does not have will often avoid learning tasks in which success is not assured to get around the possibility of being shown not to be "smart." Conversely, learners who see intelligence as being malleable and developable are more likely to see challenging tasks as a means to learn, understand, and develop skills needed for success and will engage despite the risk that success may not be immediately forthcoming (Dweck, 2006).

Clearly, learning often requires sustained struggle, new and multiple approaches, and effective use of a variety of available resources. The presence of a strong sense of self-efficacy is important for learners to continue to stretch and grow and to move beyond present levels of skill and knowledge.

Building Self-Efficacy

Because self-efficacy is strongly associated with the beliefs of the learner, making changes requires both a change in behavior and mental models. A well-known study by Carol Dweck involved helping middle school learners with general study skills but also to think about their brain as a muscle not unlike any other muscle – improvement requires exercise and practice just like athletics or any other skill-based activity (Dweck, 2007). The result of even this level of change in perspective and belief led the learners involved to perform significantly higher than classmates who only engaged in learning related to study skills.

Goal setting has been demonstrated to be a useful strategy in building learners' self-efficacy (Schunk, 1991). Close at hand goals with specific performance standards specifically help learners to understand and judge progress and then translate that to their sense of self. Additionally, assisting learners in identifying and using learning strategies raises self-efficacy. Learners who perceive that they are comprehending material feel enhanced efficacy. Watching peers complete a task can serve as a model for other learners to help them to develop confidence that they too can complete the task. Explicit feedback to learners regarding the roles effort, strategy, and employed resources are playing in their success is also helpful. Feedback that pertains to both skill and effort particularly can build efficacy (Schunk, 1991).

Helping learners to see that effort, persistence, strategy, and good use of resources can increase their learning in ways that they control can make a key difference in the level of effort learners will give and their willingness to persist and identify and try alternative approaches.

How self-efficacy contributes to ownership of learning

The stronger the sense of self-efficacy a learner possesses, he or she will be better able to succeed in the face of challenge and even initial failure. Learners with strong self-efficacy understand the connection between their efforts and actions and the learning results they experience. When efficacious learners

work diligently to achieve a goal or learn a skill, they feel not only a sense of accomplishment, they understand that the success they achieve is theirs. This insight also allows learners to see their accomplishments as under their control and as a result, under their ownership. Zimmerman, Bandura, and Martinez-Pons indicate that "self-regulated learners exhibit a high sense of efficacy in their capabilities" (1992, p. 664); it follows that efficacy is a precursor and naturally builds into learners' ability to own their learning.

Ownership of Learning

Learners with a sense of ownership see their learning as something over which they have control, something that cannot be taken from them, and in which they can take pride. Ownership of learning transfers responsibility for success from others to the learner. Consequently, the learner values the experience and the result of effort.

Role of ownership in learning

At the core of the relationship between ownership and learning is the shift from learning as a compliance activity to a commitment driven activity. When learners see learning as a process in which they must exhibit compliance behaviors, they are more likely to do the minimum to satisfy expectations and avoid negative consequences. Conversely when learners see learning as consistent with their commitment to expand their learning and ability to influence their environment, learning takes on a different hue. The question no longer is "How much must I do?" it becomes "What do I need to do to accomplish my goals and build my competence?" While the traditional model of schooling depends heavily on compliance behavior from learners, unleashing a sense of ownership for learning can dramatically improve learner performance, even within the current system.

Ownership for learning can also contribute to learner success in that it suggests value in the work and accomplishments of learners. When learners struggle to learn, their focus moves beyond the question "Can I succeed?" to "What do I need to do to succeed?" The motivational elements of purpose, autonomy and mastery become constant companions of learning when learners see the results as owned by them (Pink, 2009).

Building ownership for learning

One of the most direct ways to build ownership for learning is to offer learners choice and control related to their learning (Kohn, 1993). The areas of choice and control need to be consistent with learning goals. It is not implied that learners necessarily are given unlimited choice over what they are to learn, but how they might approach their learning. It is important to note that this strategy is also a part of building motivation, engagement, and self-efficacy.

Inviting learners to define challenges, design approaches, and carry out learning activities can also effectively build ownership for outcomes. Interestingly, this approach also allows learners to design in meaning, purpose, and mastery as the learning challenge takes shape (Stefanou, Perencevich, DiCintio, Turner, 2004).

Another useful strategy is to invite learner participation in goal setting. Offering learners the opportunity to be an influential partner in goal setting often leads to more ownership. When extended to include

participating in setting larger success criteria, learners typically will set a challenging bar and give more effort to achieve (Osberg, 1997).

How ownership for learning contributes to learning independence

Ownership for learning rests on and draws from the previous three elements: motivation, engagement, and self-efficacy and adds the dimension of seeing learning as something that is proprietary and cannot be taken away. Combined, these elements give the learner flexibility, competence, confidence, and power to learn without the supports of formal education structures. In short, ownership for learning positions the learner to make decisions, allocate energy and develop meaning and insight unique to the learner, important characteristics of independence as a learner.

Learning Independence

The ability to learn independently gives learners unique powers and advantages in school and life. Independent learners take responsibility for their own motivation and growth. They are led by curiosity, the drive to understand, and make sense of their environment. They understand and appreciate their ability to meet and overcome learning challenges through application of effective strategies, persistence, and marshaling of necessary resources. Independent learners treat their learning as owners treat other prized possessions by protecting, maintaining, and updating as needed. Independent learners understand when there is a need to add to their learning and abandon beliefs and assumptions that no longer serve a useful purpose. Additionally, they engage the resources, support, and instruction necessary to assure that the learning they seek is gained.

Role of independence in learning

As long as learners are dependent on others to tell them when, what, and how to learn, they will never completely take charge of their learning fate and future. They never gain the advantages that accompany proactive learning and anticipating needs and opportunities to gain new knowledge that will serve them well in life and career. Conversely, learners who have reached a level of independence that allows them to anticipate the need to learn and choose the learning path that fits best for them to gain knowledge and skills, possess greater chances for success.

> "Even though our philosophies of education purport to graduating students who are responsible citizens capable of participating thoughtfully in a democracy, our educational practices have a tendency to foster dependence, passivity and a "tell me what to do and think" attitude" (North Central Regional Educational Laboratory, 1995).

Learners who are able to learn independently gain the flexibility to learn on demand as circumstances dictate rather than defaulting to what someone else directs. Learning in this context often is richer because it is sought, not assigned. It is more focused because it serves a purpose. And, it is retained because it is applied to solve a problem, gain a needed skill, or enrich an aspect of life.

In the workplace, independent learning skills and orientation also give workers an important advantage to accelerate careers and assure continued employment opportunities. When workers anticipate the need to gain new skills and competencies, unlearn and abandon practices that no longer apply, or add value and offer these gifts in the workplace, they distinguish themselves as of special value to

employers, companies and organizations. These same skills position entrepreneurs and public servants to build and lead excellent organizations, provide quality services, and produce innovative products.

Building learner independence

The task of building learning independence starts at the other end of the development continuum with motivation. When learners understand how to channel their interest and curiosity, they gain the ability to motivate themselves. When learners act on their interests and motivation, they begin to understand the power they possess to support their learning. When learners understand the relationship between effort, strategy, persistence and use of resources to meet learning challenges, they gain the power to control what they learn. And when learners begin to own their learning, they gain a prized possession to protect, build, and maintain for a lifetime.

More specifically, learner independence can be built by employing a variety of strategies. Similar to building ownership, giving learners choices and encouraging them to reflect on their interests and preferences and how they play a role in the choices learners make can build independence. Also, giving learners increasing opportunities to work in groups where learners are encouraged to learn from each other rather than centering their attention on educators or adults can move learners toward independence. Setting learning goals can be useful to the process of building independence when learners are active participants in reflecting on what is to be learned, evaluating where their learning is currently and deciding what would be realistic and achievable for them. Further, exposing learners to a growing array of original, authentic texts that encourage them to analyze and draw conclusions about real world connected content can build independent competence and confidence. Similarly, encouraging learners to keep learning journals can help learners to reflect on what worked for them and how they might employ the same or another strategy even more effectively in the future (Mynard and Sorflaten, 2002).

Also effective in building independence is a gradual release strategy where learners are given progressively more voice in and control of their learning. This strategy in its fully developed form is employed in Finland where learners, beginning in tenth grade, plan their learning goals and activities and monitor their own progress (Tucker, 2011).

Taken together, these insights and skills position learners to become independent -- whether completing projects, accomplishing extended tasks, addressing and solving complex problems, or developing new ideas and approaches to serve a need. Regardless of the specific strategy, we need to give learners opportunities to learn independently, first with our coaching and guidance and later without our immediate presence and support. Learners will make mistakes and missteps, but these experiences are also part of the process of learning to be independent.

In the end, if we have nurtured each of the precursor skills and dispositions, we will have prepared them well for a world that is rapidly changing and largely unpredictable. Our greatest gift to learners is to give them the tools, insights, and understanding necessary to be in charge of their own learning and lives.

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