## Provide multiple means of Engagement

Affect represents a crucial element to learning, and learners differ markedly in the ways in which they can be engaged or motivated to learn. There are a variety of sources that can influence individual variation in affect including neurology, culture, personal relevance, subjectivity, and background knowledge, along with a variety of other factors. Some learners are highly engaged by spontaneity and novelty while others are disengaged, even frightened, by those aspects, preferring strict routine. Some learners might like to work alone, while others prefer to work with their peers. In reality, there is not one means of engagement that will be optimal for all learners in all contexts; providing multiple options for engagement is essential.

### **Guideline 7**

## Provide options for Recruiting Interest

Information that is not attended to, that does not engage learners' cognition, is in fact inaccessible. It is inaccessible both in the moment and in the future, because relevant information goes unnoticed and unprocessed. As a result, teachers devote considerable effort to recruiting learner attention and engagement. But learners differ significantly in what attracts their attention and engages their interest. Even the same learner will differ over time and circumstance; their "interests" change as they develop and gain new knowledge and skills, as their biological environments change, and as they develop into self-determined adolescents and adults. It is, therefore, important to have alternative ways to recruit learner interest, ways that reflect the important inter- and intra-individual differences amongst learners.

### 7.1 Optimize individual choice and autonomy

In an instructional setting, it is often inappropriate to provide choice of the learning objective itself, but it is often appropriate to offer choices in how that objective can be reached, in the context for achieving the objective, in the tools or supports available, and so forth. Offering learners choices can develop self-determination, pride in accomplishment, and increase the degree to which they feel connected to their learning. However, it is important to note that individuals differ in how much and what kind of choices they prefer to have. It is therefore not enough to simply provide choice. The right kind of choice and level of independence must be optimized to ensure engagement.

### 7.2 Optimize relevance, value, and authenticity

Individuals are engaged by information and activities that are relevant and valuable to their interests and goals. This does not necessarily mean that the situation has to be equivalent to real life, as fiction can be just as engaging to learners as non-fiction, but it does have to be relevant and authentic to learners' individual goals and the instructional goals. Individuals are rarely interested in information and activities that have no relevance or value. In an educational setting, one of the most important ways that teachers

recruit interest is to highlight the utility and relevance, of learning and to demonstrate that relevance through authentic, meaningful activities. It is a mistake, of course, to assume that all learners will find the same activities or information equally relevant or valuable to their goals. To recruit all learners equally, it is critical to provide options that optimize what is relevant, valuable, and meaningful to the learner.

#### 7.3 Minimize threats and distractions

One of the most important things a teacher can do is to create a safe space for learners. To do this, teachers need to reduce potential threats and distractions in the learning environment. When learners have to focus their attention on having basic needs met or avoiding a negative experience they cannot concentrate on the learning process. While the physical safety of a learning environment is of course necessary, subtler types of threats and distractions must be attended to as well; what is threatening or potentially distracting depends on learners' individual needs and background. An English Language Learner might find language experimentation threatening, while some learners might find too much sensory stimulation distracting. The optimal instructional environment offers options that reduce threats and negative distractions for everyone to create a safe space in which learning can occur.

### **Guideline 8**

## **Provide options for Sustaining Effort & Persistence**

Many kinds of learning, particularly the learning of skills and strategies, require sustained attention and effort. When motivated to do so, many learners can regulate their attention and affect in order to sustain the effort and concentration that such learning will require. However, learners differ considerably in their ability to self-regulate in this way. Their differences reflect disparities in their initial motivation, their capacity and skills for self-regulation, their susceptibility to contextual interference, and so forth. A key instructional goal is to build the individual skills in self-regulation and self-determination that will equalize such learning opportunities (see <u>Self Regulation</u>). In the meantime, the external environment must provide options that can equalize accessibility by supporting learners who differ in initial motivation, self-regulation skills, etc.

#### **CHECKPOINT 8.1**

Heighten salience of goals and objectives

Over the course of any sustained project or systematic practice, there are many sources of interest and engagement that compete for attention and effort. For some learners, they need support to remember the initial goal or to maintain a consistent vision of the rewards of reaching that goal. For those learners, it is important to build in periodic or persistent "reminders" of both the goal and its value in order for them to sustain effort and concentration in the face of distracters.

#### **CHECKPOINT 8.2**

Vary demands and resources to optimize challenge

Learners vary not only in their skills and abilities, but also in the kinds of challenges that motivate them to do their best work. All learners need to be challenged, but not always in the same way. In addition to providing appropriately varied levels and types of demands, learners also need to be provided with the right kinds of resources necessary for successful completion of the task. Learners cannot meet a demand without appropriate, and flexible, resources. Providing a range of demands, and a range of possible resources, allows all learners to find challenges that are optimally motivating. Balancing the resources available to meet the challenge is vital.

#### CHECKPOINT 8.3

Foster collaboration and community

In the 21<sup>st</sup> century, all learners must be able to communicate and collaborate effectively within a community of learners. This is easier for some than others, but remains a goal for all learners. The distribution of mentoring through peers can greatly increase the opportunities for one-on-one support. When carefully structured, such peer cooperation can significantly increase the available support for sustained engagement. Flexible rather than fixed grouping allows better differentiation and multiple roles, as well as providing opportunities to learn how to work most effectively with others. Options should be provided in how learners build and utilize these important skills.

#### **CHECKPOINT 8.4**

Increase mastery-oriented feedback

Assessment is most productive for sustaining engagement when the feedback is relevant, constructive, accessible, consequential, and timely. But the type of feedback is also critical in helping learners to sustain the motivation and effort essential to learning. Mastery-oriented feedback is the type of feedback that guides learners toward mastery rather than a fixed notion of performance or compliance. It also emphasizes the role of effort and practice rather than "intelligence" or inherent "ability" as an important factor in guiding learners toward successful long-term habits and learning practices. These distinctions may be particularly important for learners whose disabilities have been interpreted, by either themselves or their caregivers, as permanently constraining and fixed.

### **GUIDELINE 9**

## **Self Regulation**

#### CHECKPOINT 9.1

Promote expectations and beliefs that optimize motivation

One important aspect of self-regulation is the personal knowledge each learner has about what he or she finds motivating, be it intrinsic or extrinsic. To accomplish this, learners need to be able to set personal goals that can be realistically reached, as well as fostering positive beliefs that their goals can be met. However, learners also need to be able to deal with frustration and avoid anxiety when they are in the process of meeting their goals. Multiple options need to be given to learners to help them stay motivated.

#### CHECKPOINT 9.2

Facilitate personal coping skills and strategies

Providing a model of self-regulatory skills is not sufficient for most learners. They will need sustained apprenticeships that include scaffolding. Reminders, models, checklists, and so forth can assist learners in choosing and trying an adaptive strategy for managing and directing their emotional responses to external events (e.g., strategies for coping with anxiety-producing social settings or for reducing task-irrelevant distracters) or internal events (e.g., strategies for decreasing rumination on depressive or anxiety-producing ideation). Such scaffolds should provide sufficient alternatives to meet the challenge of

individual differences in the kinds of strategies that might be successful and the independence with which they can be applied.

#### **CHECKPOINT 9.3**

Develop self-assessment and reflection

In order to develop better capacity for self-regulation, learners need to learn to monitor their emotions and reactivity carefully and accurately. Individuals differ considerably in their capability and propensity for metacognition, and some learners will need a great deal of explicit instruction and modeling in order to learn how to do this successfully. For many learners, merely recognizing that they are making progress toward greater independence is highly motivating. Alternatively, one of the key factors in learners losing motivation is their inability to recognize their own progress. It is important, moreover that learners have multiple models and scaffolds of different self-assessment techniques so that they can identify, and choose, ones that are optimal.