It is the interaction of skill and will that gives the direction to their actions and helps them to persist at tasks even in the face of obstacles.  

- McKeachie et al.

Self-Regulated Learning (SRL) in higher-education cannot be discussed without the mention of student motivation (Nicol and MacFarlane-Dick, 2006, 204), yet a body of literature is lacking that addresses the roles and responsibilities of teacher versus student in the realm of SRL. The ambiguous relationship between instructor and the learner is likely to blame, because it contains too many variables. These variables are both particular to each actor and shared to varying degrees: at different levels of learning, in different disciplines, and by different personalities with different capacities. It is not clear exactly how teachers and students collaborate to arrive at the requisite level of student motivation—choice, effort, and persistence (Hofer 2006, 141), that would qualify a student as a self-regulated learner. Thus the body of literature addressing student motivation and SRL seems to avoid the issue of responsibility. Only in more recent literature regarding motivation in the online learning environment is judgment passed stating that students “have a greater responsibility for generating and maintaining their motivation over time” (McKeachie et al., 2006, 315).

Roeser and Peck’s work on motivation in SRL, “An Education in Awareness: Self, Motivation, and Self-Regulated Learning in Contemplative Perspective,” is clear in implicating the self as responsible (2009, 5). Interestingly, they raise the issue not of teacher motivation versus student motivation, rather between the student’s two selves—the “I -self- regulation (which is volitional) and Me-self-regulation (which is automatic)” (5). Their work exposes the complexity of this topic (roles and responsibilities of motivation in SRL) and conversely highlights the void that still remains. Roeser and Peck make a keen observation that the term motivation has long experienced an “identity crisis… around issues of construct definition and corresponding efforts to distinguish ‘motivation’ from other cognitive and emotional phenomena” (3). As such, the term has become too much of a catchphrase and has lost its efficacy (4) as a point of reference. Thus “a solution to the identity crisis in the field of motivation requires a framework in which motivation is understood in relation to the broader self-system, Me and I, in social context” (4). Perhaps such a framework and a clearer definition of terms will help to better define the roles in motivational responsibility within SRL.
McKeachie et al. (2006, 316) reference a proverb of Jewish disciple-making: “If you feed a person a fish, you have feed them for a day, but if you teach them how to fish, you have feed them for a lifetime!” While this timeless adage in analogous for the work of a teacher, learning on a collegiate level (the subject of McKeachie’s research) is not required for survival, whereas eating or feeding yourself is. SRL would be more analogous to a fisherman who came into greatness through personal desire and determination. Perhaps they watched others fish and had an old fishing sage or two assist them, maybe even mentor them, along the way, but it was their motivation that allowed them to persist in the face of bad weather, no bites, and plain bad luck. Not everyone is motivated to become a fisher/learner in the world of academics—many students are happy to pursue other non-academic aims.

Viewed as a ladder or stair step, Bloom’s (and Anderson, Krathwohl et al.) taxonomy for learning, teaching and assessing represents an intellectual and motivational path which students can climb themselves, ascend with assistance, or be dragged up forcefully (Halon 2006, 321). Self-regulated learners would fit into the first category, but Halonen suggest that to engage higher levels of thinking students require smaller teaching populations to allow the optimal student-teacher ratio (321-322). Self-regulated learners arguably will ascend of their own will, seeking or gratefully receiving guidance along the way, but mainline student motivational thinking exhorts the teacher to reach down and pull the student up through design of activities that force higher and higher-order thinking skills. But what when the student cannot internalize and operationalize such skills?

**ROLES AND RESPONSIBILITIES: THE LEARNER**

Citing Pintirch (2000) and Zimmerman (2000), Roeser and Peck state that Self-Regulated Learning (SRL) “in education is often discussed in terms of students’ active participation in their own learning through the management of behavioral, emotional, cognitive, attentional, and environmental resources in the service of achieving desirable learning goals.” Thus a key component to SRL and being a strategic learner is a student’s desire to be a learner, not just learn. But to what degree must the student be held responsible for their learning?

Personal goal-setting is, likewise, useful for generating self-motivation (McKeachie et al. 2006, 302-303), but most times is only as clear and defined as the course objectives or goals set before the student by the instructor or course director. Though teachers are encouraged to construct learning environments focused on mastery goals, many students will tend toward performance goals (Hofer 2006, 144-145) unless the student is a self-directed learner. Use of prior knowledge can give a student better, quicker and greater access to new material (McKeachie et al., 2006, 305), but has no promise of increased motivation and could potentially lend a false sense of security.

Must students be expected to maintain a high level of motivation in SRL? Motivation in the cycle of SRL is grouped with cognition and behavior as self-regulatory processes, one of the seven processes internal to a student (Nicol and MacFarlane-Dick 2006, 204). Also internal is the student’s beliefs about what motivates them, which is affected by external factors, like a teacher encouraging positive motivation and self-esteem (204). Hofer (2006, 146) encourages teachers to consider attribution theory, and how students attribute failures (and successes) often to other factors or their ability rather than their effort. This can be interpreted as a coping
mechanism employed to deter or deflect an attack on one’s motivation, thus allowing a student to maintain a high level of motivation. As present SRL literature attributes gains in SRL to teacher influence and student perceptions regarding motivators, so it conversely suggests that the teacher or the student can be at fault for a lack of motivation. This potentially sidelines the true issue: ability. Students’ ability is frequently the real issue—trying harder may not be enough (Murray, 2007). Few students have the “disposition” to be critical thinkers (Unrau 2008, 19).

**ROLES AND RESPONSIBILITIES: THE TEACHER**

As teachers have the charge to set environmental conditions for the learner, the teacher is the key external component, collaborating with the student to encourage, cultivate and draw out the student’s motivation to learn. According to Nicol and MacFarlane-Dick, the teacher is the primary source of external inputs; the external inputs that support and develop self-learner regulation come from the instructor (2006, 204). Though it is not clear to what extent the teacher should be involved in SRL, Nicol and MacFarlane-Dick cite findings that show motivation to be a powerful force to negatively or positively impact present learning and learning goals, and can prevent students from becoming learners for life (211). Thus, external teacher inputs that impact motivation are potent cofactors in students’ development; teachers of self-regulated learners who understand the responsibility of their inputs can help mature their students in SRL.

McKeachie connotes that role of feedback-giver is a crucial component of a teacher’s responsibility in SRL (2006, 311). Nicol and MacFarlane-Dick describe how a teacher’s input compliments (confirms, affirms, and/or contrasts) the internal process already at work and “leads to learning gains” (2006, 205). “Performance feedback that focuses on strategic effort and skill development,” is a technique for amplifying a learner’s self-perceptions of proficiency (McKeachie et al. 2006, 311). Though the potential impacts of feedback are understood, feedback at most ensures the learner is more aware, not necessarily more motivated. Likewise, student self-awareness enables a self-regulated learner to gauge performance relative to “their approaches to, and specific actions toward, academic tasks” (McKeachie et al., 2006, 304), but does not guarantee whether the student will be motivated or discouraged through such self-awareness. External inputs of teacher feedback possess, therefore, the potential for growing or diminishing the internal motivation of the student.

Halonen (2006, 320) provides some critical perspectives of the practices of content-centered teaching, citing attitudes that believe innate student intelligence will successfully connect with a discipline’s given concepts—leaving the student mostly responsible for sorting out their learning experience. She likewise offers some criticism of learner-centered approaches, praising them for their sharing of responsibility, but exposing them for their lack of focus on the promotion of “critical thinking and problem solving skills” (319). SRL falls somewhere in between content-centered and learner-centered approaches, relying on students’ innate critical thinking ability (Normal 2008, 18) to digest the material provided by an instructor responsible for setting the conditions of the learning environment. More and more, academic institutions are held accountable for their engaging of the student body regarding “thinking and learning experiences” (Halonen 2006, 319). This indicates that higher education may be driven more toward the assumption that college is for everyone, resulting in a “false premium attached to the college degree” (Murray, 2007).
ROLES AND RESPONSIBILITIES: THE FOUNDATION OF THE VOID

Murray (2007) encourages others to see there has always been a sense that some just aren’t smart enough to make the grade—‘a few bricks short of a building,’ ‘not the sharpest tool in the shed,’ and ‘dumber than a box of rocks’ to be extreme. Murray’s concept of intelligence ‘g’ is his focus for the problem in education, and can likewise be a sticking point for SRL. If intelligence ‘g’ encapsulates the core capacity of an individual’s intellect, and, as Murray argues, intelligence can’t be raised higher than the set limit inherent to each person (2007), it is possible that some cannot become self-regulated learners in higher-education due to a lack of ‘g’. This correlates to what Unrau loosely terms a “disposition—or inclination—to think critically” (2008, 18). A potential reason for a lack of literature in SRL that defines the roles and responsibilities of the teacher and student regarding motivation is that very few are willing to make and build research based on exclusive claims. If literature about student motivation and motivating students is built on an inclusive assumption that all can achieve critical thinking skills required for self-regulated learners in higher-education (a fallacy by Murray’s claim), then it may not be feasible to delineate clear roles and responsibilities of each due to the faulty foundation of the research.

RECOMMENDATIONS FOR FUTURE STUDY

Murray brings to the surface more than the issue of intelligence in relationship to student motivation and self-regulated learning, his reference to the “classic purpose: to prepare an elite to do its duty” (2007) in a way touches the void found in SRL—a clear definition of the duty of the learner. It is logical to exhort and train teachers techniques to cultivate and encourage higher-order skills, or to provide guidelines for students to achieve higher-level learning. It is likewise sensible to speak into the conversation on motivating students through engineering learning experiences and mentoring students who need or seek assistance, or to outline various techniques and strategies for students to motivate themselves where lacking. Both themes have a good deal of published research, but none appear willing to speak to the in-between—few appear willing to make exclusive claims. Though SRL seems to attribute a great deal of responsibility for motivation to the student, SRL literature could:

• study whether self-regulated learners are a special population or whether anyone can achieve SRL.
• study self-regulating students’ perceptions of their roles and responsibilities in motivating the self.
• study teachers’ perceptions of their roles and responsibilities in motivating the self-regulating learner.
• clarify why the commentary on definite roles and responsibilities is so skillfully avoided.
• begin a conversation within each discipline regarding teacher roles and responsibilities. There is much research to be done (and which may be under way) in understanding roles and responsibilities of student motivation in SRL—how much teacher effort; how much student effort—to include if SRL is for everyone?

CONCLUSION

The purpose of this review was to highlight the lack in literature that seeks to define roles and responsibilities in SRL as related to motivation. Self-regulated learners ascend the ladder of Bloom’s taxonomy without much goading, and the assistance and mentorship given by the teacher is only supplementary to a cycle of self-assessment and growth possibly linked to an
innate ability or intelligence. Though little literature exists specifically addressing motivation in SRL, the lack of research here possibly suggests that most see SRL as all-inclusive—those motivated enough to become learners can. I employed a word search on SRL literature regarding motivation, critical thinking, and intelligence. I found the intersection of all three topics to be elusive, and thus pulled in sources that made what I interpret as exclusive claims about critical thinking and intelligence.

ANNOTED READINGS

A chapter from McKeachie’s Teaching Tips (12th ed.), the authors focus not only on Self-Regulated Learning (SRL), but on practical strategy, defining characteristics and techniques of strategic learners employed by teachers in ushering students into greater SRL. An emphasis is placed on mentoring students into SRL not only for their future, but for their present—assisting students with SRL techniques while employing them in an “on the job” versus “after graduation”-fashion. They posit that self-regulated learners are strategic learners, and imply that all can be taught SRL to be strategic learners. Skills and knowledge are not enough; students must have the intrinsic personal motivation. Recommendations given touch multiple areas of SRL, to include: goal setting and self-reflection, increasing students’ awareness, using existing knowledge in acquisition of new knowledge, domain/course specific strategies, checking understanding, student motivation, and facilitating/cultivating students’ SRL in the classroom and in the online learning environment.


Halonen begins this chapter in McKeachie’s Teaching Tips text noting a popular recall in higher education to Plutarch’s observation that “the mind is not a vessel to be filled but a fire to be kindled.” From a historical perspective, Halonen addresses Bloom’s taxonomy and revisions made within the last decade stressing “outcome-oriented language to assist teachers in developing workable objectives and learning activities.” This newer direction within the taxonomy is geared toward assisting teachers in providing clearer guidance purposed according to the order of skills required for the course. Halonen provides suggestions for challenging students to improve their quality of thinking: clearly stating goals in syllabus; sharing Bloom’s taxonomy with students; proving practice thinking opportunities; modeling thinking skills; turn student questions into group-think; be genuinely excited about student attempts at critical thinking; acknowledge good student thinking; ask students to judge own contributions; design diverse learning style challenges; and give yourself permission to not cover all course content.

Hofer speaks specifically to collegiate-level motivation. Commenting on the variances in student motivation, she states, “motivation is something other than an abiding characteristic of an individual.” Choice, effort, and persistence are the typical indices of motivation, and need for achievement is a strong driving force that may only apply in certain disciplines. Hofer also adds autonomy and self-determination as motivational factors. She acknowledges the intrinsic and extrinsic forms of motivation and how each can diminish, bolster, and work independently of each other, and be coupled with informative feedback to enhance motivation. Offering practical principles for fostering student motivation, Hofer suggest: considering issues of choice and control when planning assignments; projecting your own intrinsic motivation for student learning and the subject matter; demonstrate thoughtful preparation; provide students draft review opportunities; employ criterion-referenced grading rather than a normative approach; test frequently enough that students build expectations and can mete their progress; consider dropping test questions missed by most and re-teaching the material when reviewing after a test; provide informative, constructive feedback void of controlling words like ‘should’; and make clear the motivational implications of your instructional decisions to teacher assistants.


Pedagogical training often speaks to multiple intelligences and emotional intelligence. But Murray’s article, “Intelligence in the Classroom,” point out that many factors come under fire when blame is placed for the failures of education: “crime, drugs, extramarital births, unemployment” to name a few. While systemic problems blur the blame line, he encourages others to see there has always been a sense that some just aren’t smart enough to make the grade—“a few bricks short of a building,” “not the sharpest tool in the shed,” and “dumber than a box of rocks” to be extreme. It seems Murray’s concept of intelligence ‘g’ is not completely new, but as the focus for the problem in education it is; intelligence ‘g’ thus encapsulates this core capacity of an individual’s intellect—intelligence can’t be raised higher than the set limit inherent to each person.


In “What’s Wrong with Vocational School?,” Murray nails the “false premium attached to the college degree”, indicting modern society who has advertised a bachelor or master of (you fill in the blank) as the sole means by which to achieve success. There are many able but “not interested” and those simply unqualified. False advertising is not the only culprit, as family pressures and pocketbooks or legitimate survival and provision are to blame in feeding the mis-education of so many collegians. The “demarcation is fuzzier” in the humanities due to the testing instruments, allowing for “outright misunderstandings that probably leave [lower ‘g’ students] under the illusion that they know something they do not.” It is presumptuous to assume all who have high ‘g’ are underachievers if not performing at the appropriate level, as resources and access are often problematic. But Murray does state that many high ‘g’ minds are better, and they know it yet don’t bother to take up the responsibility he feels is inherent to their
intellect. Murray states there is a false assumption in education that only if we can improve teaching all will be well.


Addressing the feedback process in Self-Regulated Learning (SRL), Nicol and Macfarlane-Dick begin defining the variables of SRL in practice: “e.g. the setting of, and orientation towards, learning goals; the strategies used to achieve goals; the management of resources; the effort exerted; reactions to external feedback; the products produced.” Feedback is the process by which instructors communicate a student’s progress in any or all of these areas. The authors note a call for revising formative assessment and feedback in relation to SRL, citing slower progress in these fields relative to teaching and learning. They note that perceptions of the feedback process are shifting—teacher transmission of feedback must be re-evaluated. Though admittedly non-exhaustive, Nicol and Macfarlane-Dick provide seven practices for good feedback: clearly define good performance; facilitate self-assessment development; transmit high quality information; encourage teacher and peer dialogue; encourage esteem and positive motivational beliefs; provide gap-closing opportunities; shares information with other instructors. Each practice is a starting point, they argue, geared toward employing the feedback process to support SRL in students.


Nilson begins by defining intrinsic and extrinsic motivation, encouraging readers that extrinsic factors cannot always be affected, but intrinsic ones can and should. Current literature on motivation, Nelson notes, finds that extrinsic motivators undercut, enhance and may have no effect on intrinsic motivators, that performance goals may also undermine student motivation, and that teacher enthusiasm and clearly stated goals are the best student-reported motivators. She summarizes theories of behaviorism, goal orientation, relative value of the goal, and expectancy of goal achievement. Providing strategies for motivating students, Nilson recommends teachers consider their persona, course design and structure, teaching methodology, and assignments and testing instruments. Nilson concludes the chapter commenting on equity in the classroom—creating a climate where every student is respected as a learner and not favored as an individual.


Roeser and Peck focus primarily on the identification of ‘self’ as an actor at the intersection of self-regulated learning (SRL), self/identity, and motivation. Secondarily the authors highlight the practice of contemplative education as used to proactively promote a student’s self-awareness. The former goal of parsing the I self-regulation and the Me self-regulation is explained through the lens of psychologist William James’ “classic self” and Roeser and Peck’s own Basic Levels
of Self (BLoS) model—the latter of which addresses the I self, awareness. The authors clarify the interaction of “self, motivation to learn, and self-regulated learning,” designating volition and the student’s conscious participation in the process of SRL as most important. Their work was the only SRL literature I found that directly addressed motivation and motivational responsibility of the learner. This responsibility was highlighted in the second purpose of the article: introduce principles designed “to cultivate conscious awareness” or “education in awareness.”


Norman Unrau details his journey in the discipline of teaching critical thinking. He defines critical thinking as it has progressed through the years in two distinct waves: early 1970’s and the mid-1980’s, and one more on the horizon. Unrau takes a very holistic approach to defining critical thinking—“a process of reasoned reflection on the meaning of claims about what to believe or what to do.” He extends this concept to all aspects of a person’s life, not confined to academics. While not completely exclusive, Unrau claims that to be a critical thinker one must be “favorably disposed.” Therein, he softly argues that critical thinking is not something for everyone. Unrau recommends that instructors plan to teach critical thinking—not selectively, but in a catch-all fashion. This further demonstrates the approach of teaching as if everyone were the same. Using case-study-like examples operationalizes his proposed methodology called TASK: thesis, analysis, synthesis, and key, which employs layers of questions designed to reposition a student to a better vantage-point for critically understanding all factors.

Additional Resources:

