

Type of Assessment	Source	Sample, Discipline	N*	Research Design	Area Codes	Source/Phase#	Brief Summary of Findings
Feedback	Agricola et al. (2020)	Undergraduate, health	26/32/30/27	Experiment 2x2	Cognition & Motivation	Teacher2	Verbal (as opposed to written) feedback did not improve students' self-efficacy or motivation but had an impact on perceptions of feedback (quality, usefulness, quantity, and timing), as compared to written feedback. Feedback request forms did not improve students' perceptions, self-efficacy, or motivation.
Post-exam review	Andaya et al. (2017)	Undergraduate, biology	44	Descriptive	Cognition	Self3,4	Relationship found between quality of students' post-exam reviews, including quality of reflections on reasons for their errors, and performance on exams. No evidence that simply completing first review led to improvements on next exam. A large percentage of students employed study strategies that relied heavily on the instructor (attend lectures, review worksheets); a small percentage used strategies that required more motivation and self-direction (self-testing); few valued these strategies.
Portfolio	Baas et al. (2019)	Primary	419/117	Quasi-experiment	Motivation	Self4 & Teacher4	Influence of portfolios on motivation were fully mediated by students' perceptions of AfL (scaffolding in particular, not monitoring). Students who used portfolios were less autonomously motivated than students who did not, but scaffolding predicted autonomous motivation.
Self-assessment	Bernacki et al. (2016)	Secondary, science & physics	26/27	Quasi-experiment	Motivation	Self4	Students who wrote weekly self-assessments of their competency and interest in science lessons showed higher endorsement of mastery goals and reported greater situational interest in science topics after the intervention compared to students who wrote summaries of the lessons. Increases in situational interest predicted higher long-term interest in the domain. For the self-assessments, prompts that articulate goal development, mastery orientation, and focus on the features of mastery were important.
Goals, criteria, teacher, peer & self-feedback	Braund & DeLuca (2018)	Primary, science	44 Ts	Survey & interview	Cognition	Self, Peer & Teacher1,2,3,4	Teachers viewed all assessment as a vehicle to promote metacognition and SR. Dialogic, self- and peer assessment were perceived as giving students greater agency and ownership of their learning goals, strategies, and plans.
Feedback	Brown et al. (2016)	Undergraduate, learning theory	278	Survey	Cognition & Motivation	Teacher & Peer2	Students' conceptions of feedback predicted SRL, self-efficacy, and GPA.
Formative feedback	Çakir et al. (2016)	Undergraduate	205	Survey	Cognition	Teacher2	No effect of level of SRL skills (low to high) on preferences for formative feedback.
Feedback on exam	Callender et al. (2016)	Undergraduate, decision-making	41/49	Quasi-experiment	Cognition	Self2 & Teacher2	Students who received item-level feedback improved their metacognitive accuracy across exams as compared to those that did not receive feedback.
Feedback	Carless (2019)	Undergraduate, teacher prep	4	Longitudinal interview	Cognition, Motivation & Behavior	Self1,2,3,4 & Teacher2	Regarding feedback uptake, students reported failing to engage with end-of-semester comments because there was no opportunity to use the feedback; short-term uptake within two-assignment modules; long-term efforts at improving learning strategies.
Peer review	Chaktsiris & Southworth (2019)	Undergraduate, history	30	Survey & interview	Cognition, Motivation, Behavior	Teacher 2 & Peer 2	The benefits of a scaffolded writing model that includes peer review led to little revision of student work from draft to final paper; however, students found the process useful. The peer review process helped students develop non-cognitive skills: self-discipline that helped with time management; and resilience in overcoming anxiety, which helped them to integrate into a social network.
Feedback	Cheah & Li (2020)	Undergraduate, business	16/12	Quasi-experiment	Cognition & Motivation	Teacher2	Positive association between company supervisors' feedback using a structured feedback form (compared with unstructured feedback) and student performance on individual presentations and group reports. Students' positive attitudes toward feedback and perceived usefulness of supervisor's structured feedback were positively related to group report performance.
Peer assessment	Chien et al. (2020)	High school, English	33/36	Quasi-experiment	Cognition & Motivation	Teacher2, Peer2	Peer assessment group had higher English speaking performance, learning motivation, and critical thinking skills, and lower learning anxiety. Four types of peer comments were identified: Praise, Criticism, Opinion (constructive suggestions), and Irrelevant. Praise was positively related to students' English-speaking performance; the relationship with Criticism was negative. Irrelevant feedback was not significantly correlated with the students' performance in the earlier peer assessment stage but had a significantly negative correlation at a later stage.
Peer assessment	Cho (2019)	Undergraduate, writing	Non-traditional :145; Traditional: 121	Quasi-experiment	Motivation	Self2,3	Traditional college students were less likely to write another essay if they had previously evaluated exemplary essays (purportedly by peers) relative to poorly-written essays, replicating the discouragement-by-exposure-to-peer-excellence effect. However, the effect was absent among nontraditional college students.
Meta-learning tasks	Colthorpe et al. (2018)	Undergraduate, biomedical science	246	Qualitative, survey, t-test	Cognition	Self1,4	Most students reported meta-learning tasks (reflect, set goals, manage motivation and strategy use, etc.) positively impacted study. Three said the tasks enabled indirect feedback to instructors. Students were equally likely to report changing or not changing study strategies in subsequent semesters. Students that did not change were generally high achievers but their performance did not improve across semesters. Students who changed did less well overall but significantly improved performance across semesters.
Feedback	Crimmins et al. (2016)	Undergraduate, writing	12 Ts; 258 Ss	Surveys & focus group	Cognition & Motivation	Teacher2	Students valued the combination of written, reflective and dialogic assessment feedback; felt it enhanced relationships with teachers and peers; would seek teacher feedback in future. Teachers reported face-to-face feedback enhanced communication, relationships, and student understanding of written feedback; provided feedback for teachers.
Final Term Exam Exemption Policy	David et al. (2018)	Undergraduate, Marine Engineering & Transportation	439	Case study	Motivation	Self1	A final examination exemption policy aimed to motivate Maritime Academy students to strive harder. The policy resulted in the improvement of learning strategies used by students. Third-class (2nd-year) students had statistically significant improvement compared with fourth-class (1st-year) cadets in terms of effort regulation and help seeking strategies. Interviews showed the policy motivated students to study harder. A few students reported disadvantages such as anxiety or low morale among students who did not meet the standards of the policy.
Peer assessment	Dolezal et al. (2018)	High school, computer science	57	Survey	Motivation	Peer2	Two peer reviewed exercises were rated distinctly more motivating than the average of the other eleven exercises only assessed by the teacher. Students also reported improvement in feedback quantity and timing for the peer reviewed exercises. Students reported wanting approximately half of their exercises to be peer assessed, and also liked feedback from teacher. Ratings of one of the exercises in one class were influenced by 3 students who said they experienced an unfair deduction of points.
Portfolio	Farahian & Avarzamani (2018)	Undergraduate, EFL	38/31	Experiment	Cognition	Self, Peer & Teacher2,3,4	Portfolios contributed to person and strategic metacognitive awareness, writing proficiency, and positive views of formative assessment, teacher/peer feedback, and reflecting on and revising drafts.
Learning intentions, criteria, goal-setting, self-assessment	Fletcher (2016)	Primary, writing	7 T; 126 Ss	Qualitative	Motivation	Self 1,2,3,4	AaL processes, including student choice, facilitated self-efficacy, perception of control in assessment process, intrinsic and extrinsic motivation, ownership and pride. Students identified as low-achieving and/or with poor motivation were perceived by teachers as exceeding expectations by demonstrating relatively greater motivation, persistence, effort and pride.
Learning intentions, criteria, goal-setting, self-assessment	Fletcher (2018)	Primary, writing	10 T; 256 Ss	Qualitative	Cognition & Behavior	Self 1,2,3,4	A planning template supported student forethought, aided engagement in metacognitive processes such as monitoring understanding, organizing ideas, and checking for consistency. Also prompted students to seek help when they were receptive to feedback.
Optional electronic quizzes	Foerster et al. (2018)	Higher ed, statistics	762	Descriptive	Cognition	Tech2	Male students participated less in optional electronic quizzes. Students with greater prior knowledge participated more. Participation correlated positively with final grade for all groups. High-performing and female students participated more often but the relationship of quiz participation and course grade for high-performing and female students was lower than for male and low-performing students.
Co-created rubrics	Fraile et al. (2017)	Undergraduate, sport science	34/31	Quasi-experiment, think aloud, survey	Cognition	Self1,2, Peer1 & Teacher1	Students who co-created rubrics outperformed the comparison group on one of three tasks.Think aloud protocols (but not self-report questionnaires) showed significant differences benefiting the treatment in 2/5 of the regulatory actions categories (self-regulatory propositions and need for clarification re rubric). Differences in self-efficacy approached significance. Students who experienced co-creation gave it higher importance.

Formative assessment	Fukuda et al. (2020)	High school, English	118	Survey	Cognition, Motivation & Behavior	Self2,3, Teach1,	Most participants experienced FA practices in secondary schools but these experiences did not lead to the development of SRL skills in out-of-class study time. There was a positive correlation between FA and SRL skills. Participants' experienced scaffolding that showed where they needed improvement but then seemed unable to monitor learning progress. For the participants whose teacher assisted in making a study plan, the mean for scaffolding was higher compared to monitoring. Participants' effort was relatively high but planning, monitoring, and strategy use were fairly low. Participants reported their teachers supported learning mostly with extra assignments or tests, not implementation of interactive FA intended to inform instruction or learning.
Self-, peer, teacher assessment	Gan et al. (2019)	High school, EFL	196	Survey	Motivation	Self & Peer & Teacher, 2	Teacher-student interactive-informal assessment and student peer and self-assessment were best predictors of intrinsic motivation and positive attitudes toward the course, respectively. There was also a significant effect for school type (urban/rural). All dimensions of assessment practices were positively correlated with intrinsic motivation and attitudes toward the EFL course. Teacher monitoring positively predicted EFL-classroom anxiety and lack of confidence.
Self-assessment	Gašević et al. (2017)	Undergraduate, performing art	77	Quasi-experiment	Cognition, Motivation, Behavior	Self2	Students used the video annotation software CLAS for course-based self-assessment. Results confirmed that scaffolding (e.g., graded activity with instructional feedback) was required to guide initial tool use, although scaffolding did not have an independent significant effect on quantity of tool use. Use of the tool was strongly influenced by experience: students sustained their use of the learning tool in future courses even when it was not graded nor was feedback provided. Students' tool use is shaped by grading, feedback, and experience.
Post-exam review: Exam wrappers	Gezer-Templeton et al. (2017)	Undergraduate, science	73	Quasi-experiment, no control	Cognition, Motivation & Behavior	Self1,3,4	Students were able to make and implement goals to improve study strategies, motivated by score improvements. There was a modest relationship between use of study strategies and performance.
Feedback	Ghahari, & Sedaghat (2018)	Undergraduate, writing	338	Survey, verbal protocol, demographic checklist, and group interview	Motivation	Peer2	Data collected before and after instruction that included peer feedback. Relatively conservative(e.g., desire for some of the errors to be corrected), dependent (e.g., tendency towards cooperative follow-up assignments), and restrictive (e.g., perceived superiority of language errors) views at early stages were gradually superseded with more confident (e.g., call for receiving hints), democratic (e.g., demanding feedback on content errors), and autonomous (e.g., preference for solo post-feedback activities) inclinations. Students reported deeper understanding of peer activities and higher self-regulation post-treatment.
Peer feedback	Gikandi & Morrow (2016)	Online teacher prep	16	Case study	Cognition	Peer2,3	Asynchronous discussions enabled reviewing others' thinking and composing ideas to offer feedback. Assessment guidelines and rubrics supported monitoring of peers' understandings and progress.
Feedback	Guo & Wei (2019)	Secondary mathematics	584	Survey	Cognition & Motivation	Teacher2	Scaffolding and praise predicted greater metacognitive awareness, use of resource management strategies, intrinsic motivation, and self-efficacy. Verification and directive feedback predicted less use of organizational strategies but slightly more metacognitive awareness. Criticism predicted test anxiety.
Feedback	Guo et al. (2019)	Secondary mathematics	1282	Survey	Cognition & Motivation	Teacher2	Feedback, students' SRL, and their relationships differed between high- and low-achieving schools. At the high-achieving school, only verification and praise were positively related to SRL; at the low-achieving school, scaffolding, praise, and criticism was positively associated with SRL. At both schools, directive feedback was negatively related to SRL but more so at the low-achieving school.
Classroom assessment	Harris et al. (2018)	Primary/secondary & undergraduate	46 & 108	Focus groups & interviews	Cognition, Motivation & Behavior	Self, Peer, Teacher 1,2,3,4	Students reported maladaptive forms of assessment agency: resistance (purposeful non-completion, task avoidance), subversion (cheating, manipulation), and contention (rejecting or challenging feedback). Students' justifications show that in particular contexts (e.g. when students fear recourse from the teacher, system, parents, or peers for poor performance) or when focusing on well-being goals, it may be rational to cheat, underperform, or avoid help and feedback.
Five AfL strategies	Hawe & Dixon (2017)	Undergraduate, teacher prep	9; 5 interviews	Qualitative: interviews & artefacts	Cognition	Self, Peer, Teacher1,2	Goals helped students know where they were going; exemplars provided insights into what was expected and constituted quality work; activities elicited evidence of learning; dialogic interactions generated feedback about understandings and progress; exemplars developed evaluative knowledge and skill; peer feedback provided context for evaluation and monitoring of work. The impact of AfL as a catalyst for SRL was realised in the cumulative, recursive effect of the five strategies.
AfL	Heritage (2018)	Primary, poetry	1T 1S	Qualitative: videotaped observation	Cognition & Motivation	Teacher 1,2,3,4	Student's SRL and agency was supported through a temporary process of co-regulation between teacher and student in the context of AfL.
Web-based peer assessment	Hsia et al. (2016)	Secondary, theater	73/90	Quasi-experiment	Cognition & Motivation	Peer1,2	Web-based peer assessment was related to improvements in students' performance, self-efficacy and intrinsic motivation for online peer feedback, and satisfaction with learning activity.
Peer assessment	Ibarra-Sáiz et al. (2020)	Undergraduate, project management	301	Survey	Cognition	Peer 2,3	Predictive model of competence development based on key variables of peer assessment: participation, evaluative judgment, feedback. and self-regulation (operationalized as analyzing own and others' work, learning from mistakes, and how to help others). Evaluative judgment involved trust in one's own judgement and in judgment of others. Evaluative judgement and participation directly related to perceptions of the quality of the peer assessment. A positive relationship between participation, evaluative judgment, self-regulation and feedback with competence development, with feedback, self-regulation, and quality of evaluation as mediators.
Kahoot! as formative assessment	Ismal et al. (2019)	Higher ed, medical	36	Focus groups	Motivation	Tech2	Study evaluated the use of Kahoot! as a formative assessment tool. When formative quizzes had been offered to medical students previously, more than half did not participate. Focus group results showed Kahoot! sessions motivated students to study, to determine the subject matter that needed to be studied, and to be aware of what they had learned.
Peer feedback	Joh (2019)	Undergraduate, TEFL	52	Survey & interview	Motivation	Peer2	At the end of semester, participants rated effects of peer feedback on grasp of learning materials, motivation to learn, active involvement in class, and learning achievement more highly than at its start. Extrovert/introvert differences existed before but not after. An effect of previous experience with peer feedback existed both pre and post semester on perceived benefits of peer feedback on learning. Interviewed participants discussed perceptions in terms of their own motivation to learn from peer feedback.
Metacognitive feedback	Karaoglan & Yilmaz (2020)	Undergraduate, computing	39/42	Experiment	Motivation	Teacher2, Tech2	Providing learning-analytics-based metacognitive feedback was effective in reducing the perception of transactional distance (perceptions of student-student, student-teacher, and student-content interaction distances) and in increasing student motivation.
Higher stakes & standards, lower resit standard	Kickert et al. (2019)	Undergraduate, statistics	51/150	Quasi-experiment	Cognition & Motivation	Teacher1,2	Under high-standards policy, students had significantly higher minimum grade goals, performance self-efficacy/expected grade, task value, time and study environment management, and test anxiety , but no significant differences in aimed grade goals, academic self-efficacy or effort regulation.
Performance feedback & summative assessment	Koenka (2020)	Secondary, science & math	161	Cluster-randomized experiment	Motivation	Teacher2	Results revealed complex interactions between feedback stage (anticipation of grade vs. receipt of grade) and form (grades, comments, grades and comments, no feedback). Students in the grades-and-comments condition experienced the most optimal effects (increased mastery goal orientation and intrinsic motivation) despite a decline in self-efficacy. Students in the comments condition experienced a similar increase in intrinsic motivation. Students in the no feedback condition reported a heightened performance-approach goal orientation when they received assessments with no feedback.
Grades, comments, performance feedback	Koenka et al. (2019)	Primary & secondary	41 studies & 258 ESs	Meta-analysis	Cognition & Motivation	Teacher2	Grades positively associated with achievement but negatively associated with motivation compared to no feedback. Compared to those who received comments, students receiving grades had poorer achievement and less optimal motivation. Moderator analyses suggested overall effects varied as a function of the type of motivation (specific construct, internal vs. external motivation), context (academic subject; comment type), student characteristics (achievement level), and methodology (grade anticipation versus receipt).
Progress or distance performance feedback	Lee (2016)	Undergraduate	73/73	Experiment 2x2	Cognition & Motivation	Tech2	Interaction effects of goal importance and type of performance feedback (progress or distance) on self-regulation and task achievement. High-goal importance groups with distance feedback showed higher goal setting, effort investment, task enjoyment, task completion, task scores than those who received progress feedback. Low- goal importance groups benefited from progress feedback.
Self-assessment	Lerdpornkulrat et al. (2019)	Undergraduate, information literacy	263/321	Quasi-experiment	Motivation & Behavior	Self2	Whether with a rubric (experimental group) or without one (control group), students' motivation, self-efficacy, information-seeking and goal orientation improved. However, there were significant differences between the groups in terms of changes in self-efficacy beliefs.

Peer & self-assessment	Lin (2018)	Undergraduate, management information system	43/41	Quasi-experiment	Cognition, Motivation & Behavior	Self2, Peer2	Group awareness revealed collaborative behavior of group members to regulate their participation; peer assessment appraised members' contribution to encourage individual responsibility and refine regulatory strategies. Classes that engaged in group awareness and peer assessment had moderately lower free-rider behavior, and enhanced socially-shared regulation and individual SRL (particularly goal setting, help seeking, and self-evaluation), compared with the control group. Perceived SSRL level predicted individual SRL.
Automatic formative feedback	Llorens et al. (2016)	Secondary	Study 1: 50/41/41; Study 2: 37/37/38	Experiment	Cognition & Behavior	Tech2	Software enabled students to read and answer MC comprehension questions while receiving feedback about performance and strategic decisions. Experiment 1 tested two feedback procedures. The most effective procedure forced students to select relevant text information to answer each question and provided feedback based on that selection. Experiment 2 disentangled the role played by the selection task from the feedback provided. Both components contributed to transfer of strategic decisions, but feedback was necessary for improvements to performance.
Portfolio	Mak & Wong (2018)	Secondary, writing	2 Ts, 69 Ss	Case study	Cognition & Motivation	Teacher1,2; Peer2	By establishing an objective through goal-setting, students had a heightened awareness of what to strive for, which motivated them to exert effort. Students reported goal-setting, keeping an error log, self- and peer assessment prompted self-evaluation and monitoring. They perceived themselves as independent learners who enjoy taking responsibility in handling feedback and are more willing to undergo critical self-reflection.
Metacognitive monitoring support	Maras et al. (2019)	Secondary, math	40 Ss w/ASD:(21/19; 95 typical Ss (46/49)	Experiment	Cognition	Tech2	Secondary school children with autism spectrum disorder (ASD) and typically developing (TD) learners used computer-based Maths Challenge with or without metacognitive monitoring support regarding accuracy of answers, goal reminders and strategy support. Learners with ASD showed less consistency between pre- and post-test intentions to try hard, and benefited from metacognitive support. The Group × Condition interaction was not significant, but support appeared to be less effective for TD. Support significantly improved task performance for both groups.
Written reflection	Martin et al. (2017)	Primary, math	18	Case study	Cognition	Self4	Findings show most students were able to accurately self-evaluate their problem-solving skills. Teachers used student reflections to begin conferring with a student for further clarification. The written reflections aided in instructional decisions and increased individual instruction when needed.
Peer & self-assessment	Meusen-Beekman et al. (2016)	Primary, writing	231/185/279	Experiment	Cognition & Motivation	Self2,Teacher2, Peer2	Students developed SRL and intrinsic motivation in both peer assessment and self-assessment interventions, compared to control. No significant differences between the peer and self-assessment interventions concerning self-regulation, motivation, or self-efficacy.
Rubric & self-assessment	Miihkinen & Virtanen (2018)	Undergraduate, accounting	64	Survey	Cognition & Motivation	Teacher1	A rubric had a positive association with students' understanding, self-assessment, confidence, and social and academic integration with teachers and peers.
Online peer assessment	Money penny et al. (2018)	Undergraduate	110	Survey	Motivation	Peer2	Students generally believed peer review to be effective, helpful to learning, increasing communication skills, and contributing to a stronger written product. Students agreed that peer review increases interaction, participation, and sense of community. Female students were more intimidated by giving peer reviews than their male classmates, but less intimidated online compared to face-to-face. More experienced students and students farther along in their college careers were less likely to give peer reviews that were affected by the ones they received.
Automated feedback	Moore & MacArthur (2016)	Secondary, writing	6	Think-aloud, interview, trace data analysis	Cognition, Motivation, & Behavior	Tech2	Students who received scores perceived as low used automated essay evaluation feedback to prompt non-surface revisions; students with high scores did not. Students who used feedback made more overall non-surface revisions, revised for different reasons, made more t-unit level revisions, and had more revisions rated as major successes than students who did not use the feedback. However, understanding of the feedback varied. Knowing they would receive a score prompted extensive revising prior to submitting their writing for scoring.
Feedback	Muñoz & Cruz (2016)	Pre-K	6 T, 6/6/6 Ss	Quasi-experiment, cross-section	Cognition	Teacher2	A greater number of metacognitive control events were displayed by preschoolers who received self-regulation feedback: in total number of events and in number of events representing each of the three dimensions of metacognitive control (planning, monitoring and evaluation).
Reflection on grade estimates	Nederhand et al. (2020)	Secondary, French	73/78/66	Longitudinal quasi-experiment	Cognition	Self4	Students provided grade estimates after each exam. Groups of students either just received their grade, had to calculate the difference between their estimate and the actual grade, or also had to reflect on reasons for a mismatch. Improvements in calibration accuracy were seen when students estimated their grade after each exam, regardless of level of reflection support. Students in the reflection group became more confident in their performance estimates.
Self-assessment (paper, computer, and mobile-based)	Nikou & Economides (2016)	Secondary, physics	23/21/22	Quasi-experiment	Cognition & Motivation	Teacher2, Tech2	Students' overall motivation, learning performance, and confidence increased in both computer- and mobile-based assessment.
Self-assessment; performance estimates, mental effort ratings, JOLs	Nugteren et al. (2018)	Secondary, genetics	15	Descriptive, exploratory	Cognition	Self2,3	Study of how students select learning tasks and role of performance estimates, mental effort ratings, and JOLs. Students based most task selections on content: very few took difficulty level, support level, and content of task into account. Performance was often overestimated and rarely changed over time. Performance estimates increased slightly; mental effort ratings decreased. Students based task selection decisions on inaccurate self-assessments.
Online feedback	Pan & Shao (2020)	Undergraduate, English	312	Survey	Motivation & Behavior	Teacher2	Teacher online feedback was positively related to both learning motivation and learning engagement. The positive effect of the feedback on learning motivation was partially mediated by learning engagement.
Self-assessment	Panadero et al. (2020)	Secondary, Spanish & mathematics	Spanish: 64/63; Math: 64/63	Cross-sectional 2x2, think-alouds, observations, survey	Cognition, Motivation	Teacher1,2	After receiving feedback, students' use of self-assessment strategies and criteria decreased severely: Using feedback became the main strategy and criteria. More strategies used for Spanish and a wider range of criteria for mathematics. Students across levels used different strategies and criteria. Females used more strategies and types of strategies.
Self-assessment	Panadero et al. (2017)	Primary, secondary, higher ed	19 studies, 48 ESs	Meta-analysis	Cognition & Motivation	Self2	A small, positive effect of self-assessment on SRL and self-efficacy. Gender (with girls benefiting more) and certain self-assessment components (such as self-monitoring) were significant moderators of the effects on self efficacy.
Feedback	Pereira et al. (2016)	Undergraduate	605	Survey	Cognition	Teacher1	Feedback was perceived as more relevant, effective and in a more positive way by students who were assessed by learner-centred methods (e.g. portfolios, project work in teams) than by those assessed by traditional methods (e.g. tests, examinations). Participants who were assessed by learner-centred or mixed methods perceived feedback as more effective in all phases of SRL than students who were assessed by traditional methods.
Self-assessment accuracy feedback	Raaijmakers et al. (2019)	Secondary	37/34/37	Quasi-experiment	Cognition	Tech2	Experiment 1 showed that self-assessment feedback led to less accurate self-assessments. Experiment 2 included feedback on self-assessment accuracy plus correct answers, or feedback on accuracy plus correct answers and opportunities to contrast with students' own answers. Again, no beneficial effect on accuracy.
Self-assessment of exam performance	Rivers et al. (2019)	Undergraduate, psychology	Study 1:403 Study 2: 69	Descriptive	Cognition	Self4	Postdictive learning judgments were slightly more accurate than predictive judgments, indicating students made better formative evaluations after an exam. However, postdiction accuracy was low, and in second study, pre/post accuracy did not differ. Students adequately monitored performance for individual questions and classified each question with respect to the topic that it assessed.
Video feedback	Roure et al. (2019)	Secondary, physical education	92/139/130	Quasi-experiment	Motivation	Self1	Situational interest increased with the use of video feedback (teachers commented on student-made videos) compared with either teacher feedback (no video) or student-made videos (no teacher feedback). However, no differences were found between the teacher feedabck and student-made video group. The video and teacher feedback group received higher scores for total interest, instant enjoyment, exporation intention, and attention demand, and lower scores for novelty and challenge.
Peer & teacher feedback	Ruegg (2018)	Undergraduate, writing	30/37	Quasi-experiment	Motivation	Teacher2, Peer2	Study compared changes in self-efficacy over one academic year. One group received teacher feedback on every preliminary draft while the other group gave and received peer feedback on every preliminary draft. The teacher feedback group increased in writing self-efficacy significantly more than the peer feedback group. Confidence in all four investigated aspects of writing (organisation, support, grammar and overall writing ability) increased significantly.
Reflection via digital learning diary	Saks & Leijen (2019)	Undergraduate, EFL	28	Descriptive	Cognition	Self1,4	Learning diaries guided self-critical analysis of learning processes, and showed growth in description, evaluation, justification, dialogue, and transfer, particularly evaluation and justification, from beginning to end of course.

Online emotional & motivational feedback	Sarsar (2017)	Undergraduate, instructional technology	15	Single case; surveys, artifacts	Motivation	Teach2	Emotional Motivational Feedback Messages (word choices, font effects, and emoticons in teacher feedback) helped to increase and maintain students' motivation. Students liked the messages and the style of the instructor's teaching by giving emotional motivational feedback. Students had a closer and friendlier relationship with the instructor; they also started to use more emotional content themselves.
Peer feedback	Schünemann et al. (2017)	Primary, reading	91/76	Quasi-experiment	Cognition	Peer2	Students practiced a strategic approach to reading in a Reciprocal Teaching (RT) or RT + SRL (planning, monitoring, and evaluating the learning process) condition. Engaging small groups in self-regulatory activities led to increased task-oriented teamwork and improved feedback quality. Type of treatment had an indirect effect on strategy-related task performance and reading comprehension through feedback quality.
Low-stakes	Schut et al. (2020)	Undergraduate & graduate, programmatic	26	Qualitative	Motivation	Teacher1,2	Study showed a strong relation between learners' perceptions of the teacher–learner relationship and their assessment task perception. Two important sources for perception of teachers' agency: positional and expert agency. High levels of teacher warmth or friendliness were positively associated with perception of assessment for learning, in particular when teachers' agency was less dominantly exercised. When teachers exercised these sources of agency dominantly, learners felt inferior to them.
Automatic assessment	Seifried et al. (2016)	Undergraduate, educational psychology	300	Quasi-experiment, 2x2	Cognition & Motivation	Teacher2, Tech2	Students' assumed source of feedback influenced their acceptance of assessments. Students were more positive towards the assumed teaching assistants' assessments. Assumed or real source of assessment had no negative effect on students' motivation, achievement aspirations, and perceived knowledge. A general decline of motivation over time was significant for all variables except for their judgment of their learning, and did not differ by source of the scoring.
E-portfolio	Sharifi et al. (2017)	Undergraduate, English	33/33	Quasi-experiment	Cognition & Motivation	Teacher1	The e-portfolio group outperformed traditional assessment group in terms of vocabulary learning on the posttest, motivation for learning, and perceived benefits of integration of technology and educational activities.
Automated feedback	Tapingkae et al. (2020)	Secondary, digital citizenship	60/55	Quasi-experiment, survey	Cognition & Motivation	Tech2	A digital contextual gaming approach with formative assessment was associated with decreases in self-reported online harassment victimization and perpetration, and improved intrinsic motivation, goal orientation motivation, self-determination motivation, and self-efficacy, and technology acceptance perceptions.
Peer evaluation	Tavoletti et al. (2019)	Undergraduate, business	5682	Quasi-experiment, no control	Cognition & Motivation & Behavior	Peer2	When peers evaluated team members' contributions to their virtual teams during project work, teams showed higher levels of group effort, lower levels of average productivity and motivation, and no clear evidence of improved team performance. Negative social dynamics offset increased effort of the group.
Feedback	Thibodeaux & Harapnuik (2020)	Graduate, education	47	Survey & focus group	Cognition	Teacher2	Studied how students use feedback. Students preferred mixed modalities of feedback and appreciated feedback that helped achieve learning goals. Learning environments that encourage learner choice, ownership, and voice through authentic learning opportunities seen as optimal for students to understand and be receptive to feedback, have dialogue with instructors, and use feedback to become self-regulated, independent, deep learners.
Exam wrappers	Trogden & Royal (2019)	Undergraduate, chemistry, math, statistics	Calculus: 83, Chemistry, Statistic: 32, Organic chemistry: 26/247	Descriptive	Cognition	Self4	Exam wrappers related to students having more accurate beliefs about study behavior and content mastery. Students' responses on final exam wrapper were less general, had more specific behavioral changes, and more growth mindset language. Student metacognitive success improved, as measured through the quadrant analysis, MAI, and qualitative analysis.
Frequent summative assessment	Vaessen et al. (2017)	Undergraduate, statistics	219	Survey	Motivation	Self4,Teacher2	Most students valued frequent graded assessments as a study motivator. A modest number of students experienced positive or negative effects from assessments and grades received. Less than half of students used the results of frequent assessments in their learning process. Perceived value of the frequent assessments and the perception of positive effects positively mediated the relation between grades and intrinsic motivation, whereas the perception of negative effects (lower self-confidence and more stress) negatively mediated the relation between grades and intrinsic motivation.
Full-definition and idea-unit feedback	Van Loon & Roebbers (2017)	Primary, ?	100	Experiment	Cognition	Teacher2	Both full-definition and idea-unit feedback standards strongly improved 4th and 6th graders' self-evaluations for commission errors and partially correct responses. Restudy selections before feedback were more adaptive for 6th than 4th graders but age differences disappeared after feedback. Global as well as item-specific self-evaluations became more accurate and less overconfident when children could compare test responses with either feedback standard. Although feedback had no overall effect on number of items selected for restudy, restudy selections became more strategic.
Learning goals, feedback	Vattøy & Smith (2019)	Secondary, EFL	1137	Survey	Cognition & Motivation	Teacher2	Students who were aware of learning goals perceived of teachers' feedback as more useful. Path analyses suggested that students' perceived self-efficacy and EFL teaching positively predicted perceptions of teacher feedback practice when mediated by perceived external goal orientation and self-regulation.
Reflective diary	Wallin & Adawi (2018)	Graduate, tissue engineering	4	Case study	Cognition	Self4	Study of reflective diaries for formative assessment of three aspects of SRL: conceptions of knowledge, conceptions of learning, and strategies for monitoring and regulating learning. Analyses indicate that reflective diaries enable assessment of all three aspects of SRL.
Self-assessment with rubric	Wang (2017)	Undergraduate, ESL writing	80	Qualitative, journal & interview	Cognition	Self2,4	Students perceived the rubric as useful for fostering self-regulation by guiding them in goal-setting, planning, self-monitoring and reflection. Both within-rubric (coverage and structure of the rubric, performance level descriptors, score range) and rubric-user (knowledge about writing) factors affected perceived effectiveness of the rubric for self-assessment.
Grades	Weidinger et al. (2017)	Primary,math	542	Longitudinal, survey	Motivation	Teacher4	Latent growth curve models showed differences in trajectories of intrinsic motivation across students rather than uniform development. Moreover, students' trajectories of grades and intrinsic motivation were only weakly associated. A latent cross-lagged model revealed that reciprocal effects between the two constructs over time were small at best (essentially zero). Results indicate that negative performance feedback in the form of grades does not necessarily lead to a decrease in intrinsic motivation.
Performance feedback	Weidinger et al. (2016)	Undergraduate, numerical task	Exp1:51/50 Exp2: 45/45	Experiment 2 × 2	Cognition & Motivation	Teacher2	Students' ability self-concept (ASC) as well as their intrinsic motivation (IM) declined after negative performance feedback. The effect of feedback on change in IM—while controlling for actual task performance—was fully mediated by students' ASC. Change in IM was not caused by a general change in affect after receiving good or bad feedback. Students' learning-approach and performance-approach goals did not moderate the relation between ASC and IM.
Self-assessment with rubric	Wollenschläger et al. (2016)	Secondary, science	40/40/40	Pre-post experiment	Cognition & Motivation	Teacher2	Students who received improvement information showed a significantly better performance in planning scientific experiments, perceived themselves as being more competent, and were also more accurate in their self-evaluative performance judgments. Calibration accuracy could be identified to be a partial mediator of the positive effect of rubric feedback on performance.
Formative use of summative tests	Xiao (2017)	Secondary, English	3T 180S	Observations & interviews	Cognition, Behavior	Self4, Teacher4	Study of formative uses of tests in a test-dominated context. Three test follow-up strategies were identified: teachers explaining test items, individual teacher-student conferences, and student follow-up actions to address weaknesses. Students were more likely to take action when the teacher focused them on taking control of their own learning.
Formative feedback, quizzes, exemplars	Xiao & Yang (2019)	Secondary, English	2T 16S	Qualitative, observations & interviews	Cognition	Teacher2	Teachers and students perceived the role of formative assessment in self-regulation to include understanding and setting learning goals, adopting strategies to achieve goals, managing resources, extending effort, responding to feedback, and producing products. Feedback at the process and self-regulation levels were most effective; enabled students to take action to improve learning such as understanding standards, self-diagnosing, planning, reflecting, seeking information, and conducting remedial activities.
Self-assessment, teacher & peer feedback	Yan (2020)	Graduate, teacher education	63	Survey	Cognition	Self1,2,3,4, Teacher2, Peer2	Study of characteristics of self-assessment practices at three SRL phases and relationships with academic achievement. Self-assessment was ongoing across Preparatory, Performance, and Appraisal phases, but less during Appraisal. Self-directed feedback seeking through monitoring at Performance phase was the strongest and positive predictor of achievement. Achievement had negative impact on self-assessment actions at Appraisal phase.
Self-assessment	Yan et al. (2020)	Secondary, integrated humanities	37/37	Quasi-experiment, focus group	Cognition & Motivation	Self2	Self-assessment diaries were positively associated with academic achievement, self-efficacy, and intrinsic value. Students with lower past achievement benefited more than other students in intervention group. No significant relationships between intervention and self-and effort-reflection. Effort-regulation, self-reflection, self-efficacy, and intrinsic value did not mediate the link between self-assessment diaries and academic achievement.
Reflective	Yang (2019)	Secondary, visual arts	33/33	Quasi-experiment	Cognition	Self4, Tech2	Study of reflective assessment, an analytic tool used in the knowledge-building community context to help low achievers develop epistemic agency. Reflective assessment encouraged low achievers to set knowledge-building goals, collectively and continuously analyse and reflect on their inquiry and ideas, and generate actions to address identified gaps, thus helping them engage in high-level epistemic agency, as compared to comparison group.

Reflective	Yang et al. (2020)	Undergraduate, science	40/33	Quasi-experiment	Cognition	Tech2, Peer2, Self4	Analytics-supported collective reflective assessment (AsCRA) helped students develop high-level shared epistemic agency in the knowledge building process. AsCRA helped students focus on high-level goals (idea negotiation, synthesis of ideas and rise above thinking), and to engage in continuous assessment, reflection, and action planning to regulate and improve their discourse.
Online student-created feedback	Yu et al. (2018)	Secondary, Chinese	55/54	Quasi-experiment, non-equivalent control group	Motivation	Self2	Students who wrote multiple choice questions and feedback on each choice for an online student-created questions increased in learning motivation and in positive academic emotions in the subject matter being learned, compared to students who created online questions alone. The feedback-creation task was not found to increase middle school students' negative academic emotions toward the learned subject, despite the added workload and complex nature of the task.
Error detection with self-assessment scripts	Zamora et al. (2018)	Secondary, science	47/68/83	Quasi-experiment	Cognition	Self2,3,4	Students who conducted error detection and then formulated and completed self-regulation activities achieved better performance. Error detection and self-assessment accuracy improved with use of scripts. Self-regulation task selection was not correlated with achievement.
Self & peer assessment & feedback	Zhang & Wenxiao (2017)	Secondary	12 T. 630 S	Survey & interview	Cognition & Motivation	Self2, Teacher1,2, Peer 2	Self-assessment was most positively related to SRL, followed by teacher instruction and structured guidance, then teacher feedback. Assessment tasks and student choice had mixed associations. Peer assessment and classroom assessment environment negatively associated with SRL.
Online peer assessment	Zheng et al. (2018)	Undergraduate, writing	34/34	Quasi-experiment	Cognition & Motivation	Peer2	Synchronous discussion was positively related to students' writing performance, especially content writing skills, affective and metacognitive feedback quality, metacognitive awareness and self-efficacy.
Feedback	Zhu & Mok (2018)	Primary, math	2972	Survey	Cognition & Behavior	Self1, Teacher2	Study of the prediction of students' SRL (planning, monitoring, and adaptive reactions) using prior achievement, interest in mathematics, personal best goal orientation (PBGO), and perceptions of frequency and usefulness of teachers' feedback one academic year earlier. PBGO had a direct effect on adaptive reactions; interest in mathematics did not. The effect of perceived usefulness of teacher feedback was weak; the perceived frequency of teacher feedback on adaptive reactions was not significant.
Feedback	Zumbrunn et al. (2016)	Primary & secondary, writing	598	Survey	Cognition & Motivation	Teacher2	Students' perceptions of feedback partially mediated the relationship between writing self-efficacy and writing self-regulation aptitude.