

The report emphasized on how Assessment of Learning and Assessment for Learning can contribute to one's learning. Assessment of Learning usually takes place towards the end of a course. Assessment is conducted to assess student's mastery or achievement. Assessment for learning, on the other hand, takes place in the middle of a course. Teachers use the data gathered from assessment to determine and address learning needs of students to make improvements on curriculum and teaching. The report also discussed ways to implement assessment for learning and other ways of applying Assessment for Learning. The last section discussed other affective processes that promote Assessment for Learning.

## Assessment of Student Learning: Assessment “for” Learning or Assessment “of” Learning

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**E**ducational institutions in the country and even outside the country have been engaged in reforms to improve instructional programs and academic achievement. A need for appropriate assessment that will identify what the students should know and should be able to do at a certain level is at the core of these reforms. Assessment, therefore, may be a powerful tool that is made available to us for ensuring that students meet the standards requisite to their specific grade or year level.

Assessment of and for learning can both promote greater learning. However, schools place more emphasis on assessment of learning rather than making a much stronger importance in assessment for learning. The crucial distinction between the two is assessment of learning carries out for the purpose of grading and reporting the student performance while assessment for learning uses classroom assessment process and the continuous flow of information about student achievement that advances student learning (Stiggins, 2008). Moreover, the purpose of assessment of learning is usually summative. It intends to report student's progress or achievement. It is often done towards the end of a course or a program and takes the form of tests or exams. In contrast, assessment for learning focuses on collection or gathering of data to modify the learning process of students. Assessment for learning usually happens in the middle of a course

or a period. In Assessment for Learning, teachers use their knowledge of the students and assessment to identify learning needs of the students (Earl, 2003).

This report explores how assessment for learning can make the students keep learning and remain confident. Assessment for learning is one of the most important goals of assessment.

Black and William (1998) made a review of research into classroom assessment and found out that assessment for learning is one of the most powerful ways of improving learning and raising standards. Because of this finding, they proposed that when anyone is trying to learn, feedback about the effort has three elements: redefinition of the desired goal, evidence about present position, and some understanding of a way to close the gap between the two.

To balance our use of assessment of learning with assessment for learning in our current school system, this report aims to:

1. Discuss the principles of assessment for learning.
2. Identify how to implement assessment for learning.
3. Recognize other ways to apply assessment for learning.
4. Present affective processes that can be measured to promote assessment for learning.

## Assessment for Learning

Can the standardized tests, procedures and scores help the learners have interest in learning and feel able to learn? Stiggins (2008) argued that the more we generate valid and reliable tests, the more it is challenging to let the learners feel the positive impact of the scores on them. This is the problem in assessment of learning because standardized tests can not capture the whole learning experience of the students.

Looking at the use of the assessment information to support learning and teaching is central in assessment for learning. As defined by the Assessment Reform Group (2002), assessment for learning is “the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how the best to get there.” To strengthen the assessment for learning, the following are the ten research-based principles listed by the Assessment Reform Group to guide the classroom practice:

**(1) It is part of effective planning.** Learner and teacher are given both opportunities to gather and maximize the information about progress towards learning goals should be considered in teacher’s planning. Strategies are planned to ensure that learner will receive feedback, take part in their learning assessment and be assisted to make further progress.

**(2) It focuses on how pupils learn.** When the assessment is planned and the evidence is interpreted, learner and teacher take into account the process of learning. Learner’s awareness not only on “what” of the learning but as well as the “how” must be achieved.

**(3) It is central to classroom practice.** Recognizing assessment for learning as central to classroom practice when teachers observe, interpret and judge how learners demonstrate and improve their knowledge, understand and skills. It is essential to integrate this assessment process in everyday classroom practice and involve both the teacher and learner in reflection, dialogue and decision making.

**(4) It is a key professional skill.** Possessing the knowledge and skills in implementing assessment for learning is considered as a key professional skill of the teachers. They are required to plan for assessment, observe learning, analyze and interpret evidence of learning, give feedback to learners and support learners in the self-assessment. Supporting the teachers to improve these skills can be attained through planning a continuing professional development.

**(5) It is sensitive and constructive.** There is an emotional impact if assessment for learning is put into practice. Hence, teachers need to be aware of their comments, marks and grades as these affect the confidence and enthusiasm of the learner. Focusing on the work rather than the learner is more constructive and sensitive for learning and motivation.

**(6) It fosters motivation.** Learner motivation is considered important in assessment for learning by emphasizing progress and achievement rather than failure in the class performance. Preserving and enhancing motivation can be manifested by protecting the learners' independence, providing them choices and feedback as well as creating opportunities for self-direction. When learners are compared with others who have been more successful, they are unlikely to be motivated and may even withdraw themselves from the learning process in areas where they have been made feel they are incapable of doing.

**(7) It promotes understanding of goals and criteria.** Promotion of commitment to learning goals and a shared understanding of the criteria by which they are assessed can lead to effective learning. Prior to commitment and understanding, the learner should be given some part in deciding goals and identifying criteria for assessing the progress. The process of communicating the criteria for assessment involves a discussion with the learners using terms that they can understand, stipulation of examples on how to meet the criteria and engagement of the learners in peer and self-assessment.

**(8) It helps learners know how to improve.** Constructive guidance about how to improve is part of planning assessment for learning. The teachers should not only identify the strengths of the learner but as well as advise on how to develop them. Moreover, teachers can provide opportunities for learners to improve upon their work if they know how to address the weaknesses in a clear and constructive manner.

**(9) It develops the capacity for self-assessment.** Autonomous learners display the ability to search for and gain new skills, knowledge and understanding which make them more reflective and self-managing because of their capacity for self-

assessment. Thus, it is the role of the teacher to equip the learners with the interest and the capacity to take charge of their learning by developing their skills on self-assessment.

**(10) It recognizes all educational achievement.** The use of the assessment for learning is to enhance all learners' opportunities in all areas of educational activity. Teacher must recognize all the efforts of the learners in accomplishing tasks.

### Implementing Assessment for Learning

Assessment of learning has well established procedures since it is widely used by different schools. However, for the assessment for learning, some theoretical ideas need to be understood in order to maximize its potential benefits. Following certain guidelines which reflects the essential features of assessment for learning is important.

Closing the gap between current and desired academic performance is central to assessment for learning. To be able to maximize the use of assessment, here are the specific assessment actions that must be taken.

1. We must balance our assessments to provide relevant information needed by instructional decision- makers. Three important questions should be considered when we do assessments: (1) What information do we get from the use of assessment that are relevant to the stakeholders? (2) What are the decisions that stakeholders make after getting the information? (3) Who are the decision- makers? The answers to these questions vary across contexts - from classroom to school districts to the community. At the classroom level for instance, we have been used to conducting a year end test or achievement test to assess the mastery level of students. However, we fail to assess the pacing of their learning during the school year. We forget to see where the student is in terms of his or her learning. At the program level, teachers, subject coordinators, principals must be able to highlight the standards that student should know and should be able to do. School leaders should be able to communicate these standards not yet met to the teachers so they can focus on improving their teaching and instructional programs. At the institutional level, the district supervisors, school leaders must collaborate to help students in the entire community to meet the standards and to help them prepare to the next level.

2. We must continue to make refinements or improvements in our academic achievement standards. Standards have been set for almost two decades. However, the problem lies when the standards in place are not sufficient to represent what students should be able to master. Therefore, we must be able to continue to make improvements and refine the standards to encompass what are essential, enduring and continuous. Standards must be ordered in such a way that that it promotes learning progression. It is not the case when a student has mastered the skill and then later on, the student has not able to master it. Rather, students must be able to master in an ascending level of proficiency. Refinement in the standards is everyone's

accountability. Teachers, subject coordinators, and qualified professionals can refine these standards, deconstruct each standard and prepare student expectations.

3. We must assure a quality assessment in the classroom. Focus has been given to students who are not meeting the standards. We fail to accommodate differences in the needs of the students in the classrooms. Students who have been meeting or even exceeding the standards have needs far different from those who do not meet the standards. Therefore, to address the varying needs of the students, teachers, principals and school leaders must have professional training to be able to institute or design programs that will address to the needs of the students. Framing improvement in terms of building on success is much helpful to the students. Teachers can lead the students toward a variety of improvements such as:

4. We must be able to turn learners to become assessors of their own learning. The time has come that learners must be turned into assessors. Adults must come in the way to help students self - assess by comparing their work against the standard. This is consistent with the principles and practices of classroom assessment for learning. Again, teachers must be given the opportunity to learn to apply these principles and practices. Pre-service programs and professional development for teachers must be ongoing.

5. We must re-evaluate our feedback strategies. The central to learning is the idea of future performance is being influenced by information about the previous student performance. Feedback is powerful that can provide information on learning success or failure in order to assist the students know about their areas of strengths and weaknesses. Teachers must be trained on how to effectively use feedback so as to support and encourage student learning. It is much easier when teachers are clear about learning intentions if they really want to focus on feedback and be more specific about where students are in their learning. Hattie and Timperley (2007) report that feedback works well when it does the following:

- a. It focuses on the student's work rather than the students attributes as a learner.
- b. It is descriptive of the work indicating how students could make the work better.
- c. It is clearly understood.
- d. It sufficiently detailed.
- e. It is timely.

6. We must build on learner success as a key motivator. Success in learning works as a motivator for learners. Intimidation on the other hand, may be a motivator to some but it also produces anxiety and fear to others. The fact that we all want students to achieve the standards, then it simply implies that achieving success is just within our reach. Therefore, we must be able to build the confidence of the students to help them have a positive attitude towards their learning.

7. We must assure assessment literacy throughout our assessment systems. To assure assessment literacy in the classroom or the entire district, we must equip our educators with the right skills in doing assessments. We must provide them opportunities to learn and apply the principles in assessment for learning. It is in this way that we will be able to help them maximize and effectively use assessment.

### **Alternative Assessment**

If assessment for learning can help the students want to learn and feel able to learn, what are the other current approaches to assess the student learning improvement? The alternative assessment is one approach that teachers can use to measure the greater impact of the learning process. It includes any other assessment method other than the traditional paper- and pencil type of test.

In alternative assessment, it requires students to demonstrate skills and knowledge that cannot be assessed by using the paper and pencil type. Critical thinking and evaluation skills are revealed when using alternative assessment. With alternative assessment, it will help schools prepare students for more complex tasks that may be required of them when they become adults by focusing on critical thinking skills rather than memorization. They are designed to help students self-assess and be responsible for their own learning. It emphasizes students' areas of strengths instead of their weaknesses.

Alternative assessment may take different forms based on the skills and knowledge being assessed. Students are usually asked to demonstrate learning through creation of a product, an oral presentation, performing a skill or conducting a demonstration. Among the variations of alternative assessments are performance-based assessment, authentic assessment, portfolio assessment, and student self-assessment.

The features of alternative assessment are the following: (1) Assessment is based on authentic tasks that demonstrates learner's ability or skills. (2) Learners set up criteria for successful completion of tasks. (3) Learners are given the opportunity to assess themselves and their peers.

Alternative assessment relies on observations that are recorded using checklist, holistic scale, analytic scale and rubrics.

**Checklist.** A checklist is used to keep track of a student's progress or work through recording. It can be used to check whether a task is accomplished or not. To create a checklist, one has to determine the specific tasks to be assessed and to create a column for marking yes or no.

### SAMPLE CHECKLIST FOR MULTIMEDIA PRESENTATION

| Criteria         | Yes | No |
|------------------|-----|----|
| Use of Animation |     |    |
| Use of Graphics  |     |    |
| Use of Sounds    |     |    |

**Holistic Scale.** The holistic scale contains several criteria, yielding a single score that gives an overall impression or rating. It is used to determine an overall rating of all the factors or dimensions being assessed. It is simple in such a way that a single rating represents overall evaluation.

### SAMPLE HOLISTIC SCALE FOR MULTIMEDIA PRESENTATION

|   |
|---|
| <p>3-Excellent Multimedia Presentation<br/>           * included 10 kinds of animation<br/>           *included 5 varieties of sounds<br/>           * included 3 kinds of graphics</p> |
| <p>2 - Good Multimedia Presentation<br/>           * included 5 kinds of animation<br/>           * included 2-4 varieties of sounds<br/>           * 1 kind of graphics included</p>   |
| <p>1 - Poor Multimedia Presentation<br/>           * included less than 5 kinds of animation<br/>           *included 1 kind of sound<br/>           *no graphics included</p>          |

**Analytic Scale.** Whereas holistic scale gives an overall rating, the analytic scale provides a single rating for each particular dimension being assessed. This gives a clearer picture of how performance is evaluated because all the factors are listed and considered.

### SAMPLE ANALYTIC SCALE FOR MULTIMEDIA PRESENTATION

| CRITERIA           | Outstanding<br>3 | Competent<br>2 | Poor<br>1 |
|--------------------|------------------|----------------|-----------|
| Creative Animation |                  |                |           |
| Varied Graphics    |                  |                |           |
| Original Sounds    |                  |                |           |

**Rubric Scale.** Rubric involves the use of scoring criteria combined with a rating scale. Rubrics are scoring guide that use criteria to differentiate between levels of student proficiency. Rubrics should answer the following questions:

- By what criteria should performance be judged?
- Where should we look and what should we look for to judge performance success?
- What does the range in the performance quality look like?
- How do we determine validity, reliability, and fairly what scores should be given and what that score means?
- How the different levels of quality should be described and distinguished from one another?

### SAMPLE RUBRIC FOR MULTIMEDIA PRESENTATION

|          | Excellent   | Meeting Standards  | Progressing                               | Not met standards             |
|----------|---|--|---|-------------------------------|
| Graphics | Well-placed graphics were used to make essential points on how parallel and perpendicular lines are used in real life | Graphics were used to make essential points on how parallel and perpendicular lines are used in real life. | Graphics were used .                      | No graphics used.             |
| Effects  | Different transitions, sounds were used . Additional animation used.  | Different transitions, effects were used.  | One type of transition or effect was used | No Transitions /effects used. |
| Sounds   | Various sounds used, Original sounds included   | Few sounds used  | One type of sound used                    | No sound used                 |



## Affective Processes in Student Learning

In assessing student achievement over the years, we are only occupied with cognitive processes. We tend to neglect measures of affective processes such as motivation, self-regulation and self-efficacy. The affective processes are rarely considered as interacting with the cognitive processes. Others frequently think affective domain only in terms of a student's motivation to learn. As Smith and Ragan (1999) have pointed out that any cognitive or psychomotor objective has some affective component to it.

Exploring assessment in relation to affective processes can maximize the use of assessment for learning. Although teachers may not always aware of, motivation is a contributing factor to student achievement. The role of the teacher is to identify the intrinsic and extrinsic motivation of the students in their class performance. Fritz Heider's attribution theory is one explanation about the intrinsic motivation which is usually associated with high educational achievement and enjoyment by students. A teacher can attempt to assess the amount of effort the learners put in doing tasks, the belief of the learners that they can be effective in reaching desired goals and the level of learner interest in mastering a topic. For extrinsic motivation, teachers can identify what are the rewards that can lead to better student learning.

Teachers can make use of the following instruments to assess the student motivation.

**(1) Motivational Element Questionnaire (MEQ).** A valid questionnaire constructed by Schimdt et al. to measure intrinsic and extrinsic motivation.

**(2) Instructional Materials Motivation Survey (IMMS).** It was developed by Keller that requires students to rate 36 statements in relation to the instructional materials they have just used.

**(3) Motivational Delivery Checklist (MDC).** This is a tool proposed by Keller and Keller which has 47-item ARCS-based instrument for evaluating the motivation characteristics of an instructor's classroom delivery.

**(4) Motivational Intensity Questionnaire (MIQ).** Gardner constructed this instrument to measure the intensity of one's motivation.

**(5) Attitude/Motivation Test Battery (AMTB).** Gardner validated this test comprising of scales which assess the individual's affective reactions toward various groups, individuals and concepts associated with second language acquisition.

Self-efficacy is another construct that can be measured in the learning process. It is rooted in Bandura's social-cognitive theory. It is linked with motivational constructs such a goal setting and persistence (Multon et al., 1999) and with affective constructs such as stress and anxiety (Finney & Schraw, 2003). Based on the studies done, individuals with higher levels of self-efficacy tend to be more motivated and experience less stress and anxiety. However, most of the studies in self-efficacy are related with specific academic and social sub-domains which results to a few

measures of general academic self-efficacy. Below are some of the instruments that determine the general academic self-efficacy of the students.

**(1) Student Readiness Inventory (SRI).** Casillas et al. developed this instrument which aims to measure the students' psychosocial and academic skills. It has 108 items with a 6-point response scale ranging from strongly disagree to strongly agree.

**(2) College Academic Self-Efficacy Scale (CASES).** It was developed by Owen and Froman to assess student self-efficacy. It has 33-item survey format that contains questions pertaining to different items that relate to the perceived level of self-efficacy for a college course.

**(3) Scale of Perceived Social Efficacy (PSSE).** Smith & Betz developed this scale to measure the social self-efficacy beliefs of the college students.

**(4) College Self-Efficacy Inventory (CSEI).** It is a useful construct that may be of interest to the teachers who would like to know the academic and career-related outcome in relation to student's self-efficacy.

When belief in one's capabilities to achieve a goal or self-efficacy is assessed, the teacher can better assist the students how to improve their learning strategies. It is noted that intrinsically motivated students have strong sense of efficacy as they deal with difficult tasks. Self-efficacious students are more likely to achieve their personal goals and can recover quickly from setbacks compared to students with low self-efficacy who have low aspirations and may consider challenging tasks as threats that are to be avoided. Margolis and McCabe (2006) suggested tips to improve self-efficacy for struggling students.

**Use moderately- difficult tasks.** Teacher aims to target for difficulty that is slightly above the students' current ability level. Task that is too easy will appear boring or embarrassing and may communicate the feeling that the teacher doubts their abilities and a too-difficult task will reinforce low self-efficacy.

**Use peer models.** In achieving the goal, students can learn by watching a peer succeed at a task. Peers may be drawn from groups as defined by gender, ethnicity, social circles, interests, achievement level, clothing, or age.

**Teach specific learning strategies.** It is more effective if teachers provide a concrete plan of attack for working on an assignment, rather than simply turning them loose. This may apply to overall study skills, such as preparing for an exam, or to a specific assignment or project.

**Capitalize on students' interest.** Match the course material or concepts to student interests such as sports, pop culture, movies or technology.

**Allow students to make their own choices.** Include in teachers' planning that students are allowed to make their own decisions in some areas of the course such as with flexible grading, assignment options or self-determined due dates.

**Encourage students to try.** Give the learners consistent, credible and specific encouragement that can make them do the task successfully.

**Give frequent, focused feedback.** Giving praise and encouragement is very important, however it must be credible. Use praise when earned and be direct and objective. It will be more effective when giving feedback on student performance to compare the past performances of the same student rather than make comparisons between students.

**Encourage accurate attribution.** Help the students understand the reasons why they fail and not to judge them as dumb just because they did not accomplish the task. Reasons may include they did not follow instructions, they did not spend enough time on the task, or they did not follow through on the learning strategy.

Another affective domain that captured the interest of the researchers is assessing is self-regulation. Self-regulation can demonstrate significant predictions of students' academic outcomes or performance. Unlike mental ability or academic performance skill, self-regulated learning (SRL) is viewed by Zimmerman as:

(1) A self-directive process and self-belief that enables the learners to transform their mental abilities into an academic performance such as verbal aptitude into writing.

(2) A proactive process that students use to acquire academic skills such as setting goals, selecting and deploying strategies and self-monitoring one's effectiveness.

(3) A set of proactive qualities of learners which are important in social forms of learning such as displaying personal initiative, perseverance and adaptive skill.

Studying self-regulation was evident during 1970 to 1980 focusing on the impact of self-regulatory processes such as strategy use, goal setting, imagery or self-instruction. The researchers on this area were Ann Brown, John Levin, Donald Meichenbaum, Michael Pressley, Dale Shunk. In 1986, when American Education Research Association held a symposium, there was an attempt to integrate under a single rubric research on such processes as learning strategies, metacognitive monitoring, self-concept perceptions, volitional strategies and self-control. Moreover, it was also the time when the definition of SRL refers to the degree to which students are metacognitively, motivationally and behaviourally active participants in their own learning process. Instruments assessing metacognitive, motivation and behavioural constructs were also developed. Known researchers for this movement were Monique Boekaerts, Lyn Corno, Steve Graham, Karen Harris, Mary McCaslin, Barbara McCombs, Judith Meece, Richard Newmann, Scott Paris, Paul Pintrich, Dale Shunk strengthen this.

The instruments that focused on motivation, metacognition and behaviour are Learning and Study Strategies (LASSI), Motivated Strategies for Learning Questionnaire (MLSQ) and Self-Regulated Learning Interview Scale (SRLIS). However, Winne and Perry (2000) classified these three tests as aptitude measures of self-regulation. Below are the proponents, description and constructs of the instruments.

| Test   | Proponents                                | Description  | Constructs  |
|--|---|--|---|
| LASSI  | Weinsein, Schulte and Palmet, 1987        | 5-point rating scale with 80 items self-report inventory | <ol style="list-style-type: none"> <li>1. Skill               <ol style="list-style-type: none"> <li>a. Concentration</li> <li>b. Selecting main ideas</li> <li>c. Information processing</li> </ol> </li> <li>2. Will               <ol style="list-style-type: none"> <li>a. Motivation</li> <li>b. Attitude</li> <li>c. Anxiety</li> </ol> </li> <li>3. Self-regulation               <ol style="list-style-type: none"> <li>a. Time management</li> <li>b. Study aids</li> <li>c. Self-testing</li> <li>d. Test strategies.</li> </ol> </li> </ol>  |
| Motivated Strategies for Learning Questionnaire (MLSQ) | Pintrinch, Smith, Garcia, McKeachie, 1993 | 7-point scale with 81 items                              | <ol style="list-style-type: none"> <li>1. Learning Strategies               <ol style="list-style-type: none"> <li>a. Cognitive-Metacognitive                   <ol style="list-style-type: none"> <li>i. Rehearsal</li> <li>ii. Elaboration</li> <li>iii. Organization</li> <li>iv. Critical thinking</li> <li>v. Metacognitive self-regulation</li> </ol> </li> <li>b. Resource Management                   <ol style="list-style-type: none"> <li>i. Managing time and study environment</li> <li>ii. Effort management</li> <li>iii. Peer learning</li> <li>iv. Help seeking</li> </ol> </li> </ol> </li> <li>2. Motivation               <ol style="list-style-type: none"> <li>a. Valuing                   <ol style="list-style-type: none"> <li>i. Intrinsic-extrinsic goal orientation</li> <li>ii. Task value</li> </ol> </li> <li>b. Expectancy                   <ol style="list-style-type: none"> <li>i. Self-efficacy</li> <li>ii. Control of learning</li> </ol> </li> <li>c. Affect                   <ol style="list-style-type: none"> <li>i. Test anxiety</li> <li>ii.</li> </ol> </li> </ol> </li> </ol> |

|   |  |  |   |
|---|--|--|---|
| Self-Regulated Learning Interview Scale (SRLIS) | Zimmerman and Martinez-Pons, 19886, 1988 | 4-point scale with 6 open-ended problem contexts | <ol style="list-style-type: none"> <li>1. Motivation <ol style="list-style-type: none"> <li>a. Self-evaluation reactions</li> <li>b. Self-consequences</li> </ol> </li> <li>2. Metacognition <ol style="list-style-type: none"> <li>a. Goal setting and planning</li> <li>b. Organizing and transforming</li> <li>c. Seeking information</li> <li>d. Rehearsing</li> <li>e. Memorizing</li> </ol> </li> <li>3. Behavior <ol style="list-style-type: none"> <li>a. Environmental structuring</li> <li>b. Reviewing texts, notes and tests</li> <li>c. Seeking assistance from peers, teachers and parents</li> </ol> </li> </ol> |
|---|--|--|---|

The early test development studies merited further research on producing clear evidence of SRL. An alternate assessment of SRL is an event approach that aims to separate students' efforts to self-regulate into phases such as before, during and after attempts to learn (Pintrich, 2000). Event approach measures can assess chronological dependency responses which are appropriate for making causal inferences about online changes in self-regulation in real time and authentic contexts. Although aptitude measures of SRL provide useful information on the methods of learning of the students, online measures of SRL make detailed information on cognitive processes available in real time. There are also efforts to assess students' SRL online such as computer traces, microanalytic measures, think-aloud protocols, structured diaries and direct observations. Conducting this method poses several questions with the following methodological innovations:

(1) How trace measures of SRL compare to self-report measures in assessing changes in self-regulation during learning? Winnie and his colleagues (2006) developed innovative software program called gSudy that enables the learners to make notes, create glossaries, label and index context, construct concept maps, search for information, chat and collaborate and receive coaching. Researchers can measure the traces which are defined as observable indicators about cognition that students create as they engage in a task. From these traces, the research can likewise reconstruct event description of students' study method and link to academic outcomes in real time.

(2) Is students' level of SRL in personally managed contexts, such as at home or in the library, linked to improvements in their overall academic achievement? Linking academic improvement to SRL can be measured by applying the think-aloud method which was developed by Azevedo and his colleagues. A think-aloud method for assessing SRL as an online event in a hypermedia learning environment involves students' report about their thoughts and cognitive processes while performing a task.

(3) Can teachers modify their classrooms to foster increases in SRL among their students? Using structured diaries and time-series data can assist the teachers in changing the classroom structure to promote intensification in SRL among the students. SRL diaries can be framed by using a series of event questions regarding the students' study session. To study changes in SRL during classroom learning events, we can also use a variety of quantitative and qualitative measures such as observation forms, portfolio assessments and interview of teachers and students.

(4) What is the role of students' motivational feelings and beliefs in initiating and sustaining changes in the SRL? Zimmerman and his colleagues developed a microanalytic methodology for assessing SRL in three sequential phases: forethought phase, performance phase and self-reflection phase.

### Conclusion

Shift in the practice of assessment can be fully achieved if schools exert effort in balancing assessment of learning and assessment for learning. Assessment of learning helps to determine the student performance but student for learning advances student learning by providing continuous feedback on their strengths and areas for improvement. Since assessment of learning has taken place in the schools, educators need to increase their knowledge on the principles of assessment for learning to have its effective implementation. To maximize the learning opportunities, bridging the gap between current and desired academic performance is the main goal of assessment for learning. It means that the focus of the assessment is not just on the cognitive processes of student achievement but as well as its affective processes such as motivation, self-efficacy and self-regulation. Alternative assessment is what we use to measure the affective processes. Nowadays, assessment is not necessarily in the form of paper and pencil because there are skills that are better captured through alternative assessment (Magno & Ouano, 2010).

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