

## **Alternative Assessment Methods in Primary Education: Review and Future Directions**

**Mehmet DEMIR**

*The University of Birmingham*

### **Introduction**

New insights within the knowledge age, where change is constant and unpredictable and also the skill to accomplish difficult tasks is more likely to rely on one's ability to navigate the vast array of informational resources than it's to base on static knowledge have resulted during a shift in education and assessment. Learning theories such as constructivism, multiple intelligences, and project-based learning have deeply affected traditional teaching, learning, and assessment theories in addition as their applications. One in all the explanations for the evaluation and improvement of teaching, and learning theories is that the meaning and therefore the scope of the definition of learning have shifted. This shift involves a unique approach to each stage of learning and teaching process, including a brand new approach to assessment.

Learning is a life-long process, which successively makes instruction more student-directed. This involves students who have better problem solving, critical thinking, synthesis, analysis, moreover creativity to achieve success. Additionally, student's ability to gauge has increased; this, in turn, demands alternative styles of assessment to assess both learning process and outcomes.

In recent decades, there has been a big change within the selection and usage of tools for assessment within the learning process. The paradigm of assessment in schools, colleges, and universities has been shifted from traditional methods to alternative routes and that they are relying less and fewer on traditional paper-and-pencil tests and developing creative ways to assess the training of their students. Traditional methods merely evaluated students with a teacher-centric approach that was largely opaque to students. Newer approaches to assessment don't simply determine whether a student knows something or not; ideally, the assessment reveals much deeper aspects of the educational process and may enable students to elucidate, apply, critique, and be self-monitored.

In response to requirements for reformed assessment, alternative assessment methods have acquire play. Thus, alternative assessment methods should be used rather than traditional assessment for providing every student with the simplest learning opportunity if we truly believe inclusion and variety, which builds on the understanding that everybody is capable of learning and deserve the most effective possible investment in his or her

education, it becomes unsustainable to continue using an assessment model that has traditionally developed to specialize in selection, certification, and accountability.

### **Literature Review of Alternative Assessment Methods**

#### **What constitutes of Alternative Assessment?**

Before providing the definition of alternative assessment, there needs to be stressed that the terms “complementary and alternative” are interchangeably used in measurement and assessment. That is, it is preferred ‘complementary’ term to ‘alternative’ one some research. However, the use of the “complementary” term is quite new for related literature under investigation. For this reason, we deployed an ‘alternative’ term to access much more papers in this study.

Alternative assessment can be described as “performance assessment”, “direct assessment” and “authentic assessment” (Culbertson, 2000, p. 32). Students are evaluated with a variety of methods such as project-based assignments, peer assessment, self-assessment, portfolios, performance-based tasks, rubrics, and other types of open-ended approaches. The concept of alternative assessment was developed as a consequence of teachers’ dissatisfaction with the lack of tools to show students’ actual improvement and strengths. Alternative assessments aim to provide complex assessments and multiple, rich evaluations. These methods also provide rich, realistic information about students’ achievement, encourages their active participation, and holds them to high expectations for in-depth understandings of challenging academic content.

Alternative assessment, which serves as a supplementary component for students who have different learning styles, gives students a way to construct their answers in a way that traditional assessment does not. Alternative assessment emphasized opportunities for teachers to foster students’ reasoning and critical thinking, create their own solutions for complex problems, and present their own perspectives using multiple presentation methods for daily life problems. In addition, these assessment methods way help students become more discerning and innovative and help them determine what they have learned and what they still need to learn by enabling them to use and assess their pre-existing knowledge and skills more effectively.

#### **Alternative Assessment Methods**

Alternative assessment (AA) is an umbrella term for a variety of nontraditional assessment methods, including classroom-based, informal performance assessment and authentic assessment, portfolio assessment, and project-based assignments. AA is based on a constructivist view of learning; viewing learners as active constructors of knowledge and supplying responses rather than selecting or choosing. Therefore,

alternative assessment has the potential both to reverse student passivity, replacing it with initiative, self-discipline, and choice, and to promote compassion, vision, trust, and spontaneity in students. AA was developed “as a result of lacking tools that can show students’ real improvement and their strong strides, and the dissatisfaction of implementers about prevalent assessment tests” (Balliro, 1993).

The traditional way of assessment is not really efficient for many reasons and it focuses on students’ knowledge and skills, however, AA focuses on students’ learning strategies, problem-solving, and task completion, using direct and holistic measurements of what students know. Moreover, alternative assessment uses activities that discover “what students are able to do with the knowledge and skills obtained through learning”, emphasizing their abilities and strengths instead of focusing on their weaknesses and what they do not know (Oliver, 2015).

Alternative assessment actively requires students to participate in the process of “what is taught, how it is taught, and how it is evaluated” (Kreisman, Knoll, & Melchior, 1995, p. 114). Therefore, over the past two decades, numerous studies have been conducted to examine alternative assessment methods on teaching and student learning in primary education. Thus, the purpose of this book chapter is to focus on Alternative assessment methods in primary education curriculum to define the general characteristics of alternative assessment methods, provide a broader perspective of alternative assessment information, and in this way, it can attain a conceptual framework to enhance and improve the knowledge of alternatives methods to best accomplish an informative review for researcher and teachers. Because the AA methods are the primary factor in determining what students understand, as well as what and how they are learning; whether or not they have accomplished the learning goals. Furthermore, it provides teachers an insight into the success of teaching strategies and students’ preference of learning styles. This focus on the AA helps educators with the development of course instruction and allows for more holistic measurement. Moreover, the methods provide a more comprehensive picture and more authentic information about learner’s knowledge, skills, attitudes, and competencies which are developed during the teaching process.

According to the literature review, it can be listed alternative assessment methods as follows:

1. Performance Tasks
2. Peer Assessment
3. Self-Assessment
4. Portfolio

5. Rubrics
6. Project
7. Diagnostic Branched Tree
8. Structured Grid
9. Presentation

### **Performance Tasks**

A performance assignment is a set of tasks that are required perform in order to create a product or conduct a task to demonstrate competence in a specific skill or standard subject. The tasks enable students an opportunity to express themselves, thus this potentiality creates advantages for all talented students. It also requires students to perform a task rather than select a response from two or more options from a list. Each student can find an opportunity to exhibit their own thinking and creativity because responding to questions quickly and accurately is not the only measure of student ability.

Performance tasks allow students to evaluate the learning that takes place in its nature. The tasks provide an opportunity to determine the progress of the student in the teaching and learning process, to define what students know and what they do not know, and also to understand points where it shows students' shortcomings, his weakness, and strengths in the learning process through real-life data. Furthermore, these assignments are activities, which aim for students to confer with problem situations that may be encountered in real life, to develop and measure students' high-level thinking (Demir, 2015). Namely, a performance task is any learning activity that asks students to perform to demonstrate their knowledge, understanding, and proficiency.

Performance tasks enable students to conduct their knowledge and abilities in constitute some form of product, presentation, or demonstration focused on key aspects of academic learning instead of requiring to select an answer from a ready-made test. The term of performance assignment commonly indicates substantive activities either short-term, on-demand tasks or curriculum-embedded, project-based tasks that yield reliable and valid scores. The outcome of the performance can be included writing, research reports, presentations, and works of art, performances student self-reflection, and so forth. The tasks are routinely used in certain disciplines include visual and performing arts, physical education, and career technology where performance is the natural focus of instruction. However, such tasks should be used in every subject area and at all grade levels.

The performance duties design to consider sufficiency in reading, writing, speaking, and research, analysis, presenting, and creating. In a sense, learners have bestowed a scenario

that establishes a ground in real-life content. Accordingly, performance assignment evaluates on performing an examination in science, creating a product on computer demonstrate functions in mathematics, analyzing source documents to compare them to different historical points of aspects in social studies, conducting a multi-media presentation in English class, acting out a character in a theatrical production, or completing a painting in an art class. Then, the learners gather information about the subject or theme of a course by reading and reviewing literature, articles, and videos. The learners are supposed to get a mark on the knowledge provided, taking into consideration the task they are presented in the scenario. Those learners' outcomes require a checklist, a well-designed rubric, or some manner for scoring students' performance assignments properly according to the assessment criteria.

What performance task is not? It is easily defined in general that particularly, the performance task is not multiple-choice testing, not an essay, short-answer test, matching, true/false testing, or problems with a single correct answer, and also not filling in the blank questions. Students supposed to build an answer, reveal a product, or conduct an activity. From this point of the assessment, the performance encompasses on a very wide range of activities, including completing a sentence with a few words, writing an essay a thorough analysis, conducting and analyzing a laboratory investigation, presentation.

### Considering Points at Arrange Performance Tasks

- Time given to students to complete their tasks should be adjusted according to the quality of the performance in the assessment process.
- Performance tasks include multiple skills.
- Some of the performance tasks should be assigned as individuals and some of them as group tasks.
- Performance tasks should focus on outcomes and processes.
- The tasks comply with the curriculum's gains
- Performance assignments arrange according to students' level
- The assignments fit students' social-economic status and local facilities
- Related to the learning process
- It should include new and unique situations where information to be used

- Should be capable of being done by students
- Instructions, which students will follow in preparing process schedule in order to achieve learning objectives
- Shows some similar performance tasks, and students to be prepared for the tasks before starting to perform their abilities
- Prepares a rubric for learning aims, and the rubric includes worthy of notice criteria during preparing performance assignment (Butler, McColskey ve O'Sullivan, 2005: 45).

### The Significant of Performance Tasks

Performance tasks have multiple advantages, which enable teachers to assess all aspects of learning values be formed in students are to reverse simply traditional assessment boundaries. Particularly, the performance duties that affect all students' knowledge include writing, speaking, thinking, problem-solving, and social skills. The utility of the foundation of performance tasks is how teachers to be taught and how students to be preferable learned. Accordingly, the aim is not only to improve education but also to develop students and teachers' learning and teaching ways. The performance allows students to construct or perform an original response rather than just recognizing a potentially right answer out of a list provided, performance assessments can measure students' cognitive thinking and reasoning skills and their ability to apply knowledge to solve realistic, meaningful problems.

A performance task is one of the useful alternative assessment methods due to asking to prepare a unique reply by the learner to single or more in time comprised in the evaluation. This kind of assessment method assists trainers to reveal not only learners what they know about, but also what they can actually do. Well-designed a performance task leads teachers to measure learners' comprehension levels, to support teachers to give learner feedback regarding misunderstandings, and issue directions during the learning process. Furthermore, such kinds of tasks can provide effective and informative learning opportunities to engage students with the learning process, particularly, students can be creative, inventive in any situation. The assessment process also improves reflection, profound learning about the task assessment topic, which can help drive improved student learning and their higher achievement. Moreover, these assessments are useful to improve student interest in their learning because loosely-defined performance assessments may present so many different and interesting ways for students to respond.

Some widely conducted research on performance duties indicates the performance duty is the potential to be aware to what extent the students have authentically mastered the

materials and bring good effects. One of the research demonstrates that performance duties initiate college students' motivation using some projects in the learning process, and thus the students are more engaged in the course, and their motivational and emotional state increases despite variance situations. Students gain high-lever abilities during their performance, oral presentation, and group works based on their experience. Another research that includes similar findings investigates the trend of using performance-based assessment in his twelfth-grade classroom of secondary level. The results show that most of the students are upward of encouraging and motivating in the learning after the performance-based assessment was conducted. It also found that the students are more successful, and they become easily adapted to this kind of assessment. They explore a diverse joyful pathway of learning, and so the statistic points out their achievement on the post-test was significantly improved.

The performance-based assessment in alignment with authentic assessments includes inquiry-based learning and problem-based learning strategies indicate the learners with a complex, real-world challenge in which the scenario, role, process, and product are all authentic; they must then demonstrate that they have the skills and knowledge to complete the task. Therefore, the learners effectively engage in the problem-solving activities instead of choosing passively an answer among options. For, the options are incongruous with assumptions which cover the learners perform well on a multiple-choice test that focuses solely on content, and so they are not able to aware of how to use their knowledge in real-life content. A test is traditionally employed after the teaching has been completed to determine how much of the content students have retained in. But a performance task can simultaneously promote student learning and gauge demonstrated skills. Thus, teaching, learning, and assessment all take place as the student performs the task (Chun, 2010).

The learners have not only skills and full of knowledge for particular course content, but they also gain the practice they need to be better critical thinkers on any scenarios or problems they encountered. It does not matter within the same domain or across domains providing they complete a sufficient number of performance tasks. Because the main purpose of teaching is improving the students of transferrable skills and knowledge.

### How to Create Performance Tasks for Learners

#### Identify goals of the performance task:

Teachers' expectations are to challenge their students to use problem-based learning strategies when they encounter any difficulties and use critical thinking alongside exhibiting little codependency, instead, more individuality during fulfilling the task assessment. However, teachers do not anticipate students to count on their instructions on how to implement each stage of the assessment.

*Select the performance assessment standards properly:*

Common core standards to be steered towards performance tasks should be chosen after the aim of the task designated, then the criteria of the assessment are supposed to measure the learners' understanding and guidelines of conditional probability. Thus, it is needed to indicate the learning objectives, which involve the participation of the whole rules of how the task will be marked, to explain what should be at each step of the draft and final presentation.

*Review assessments and learning gaps*

One of the significant steps is to look at completed students' worksheets for the unit. The next step is to investigate what is missing and note that there are few relevant real-life settings, and then it is decided to create a performance task assessment based on founded on facts of life. Frequency tables require students to analyze as well as other graphs and charts.

*Design a scenario*

Doing brainstorming for a few diverse scenarios included some components such as setting, outcome, role, time, etc.

*Gathering or composting materials*

This step might be needed depending on the scenario. It can be created in different documents including charts, bar graphs, or tables.

*Develop a Learning Plan*

It should be sensitive in preparing students for the performance task because it needs a balance between teaching contexts and preparing students for the task. Performance steps need to be in place before students completed the performance. It also needs to be constantly reviewed by considering their learning demands.

**Peer Assessment**

Peer assessment is a process of a group of individuals evaluating their peers. The peer uses the knowledge and skills of students to explain, review and improve the works of peers in the process. In other words, the assessment is a setting in which students of similar status evaluate individually the works, learning outcomes, outputs, levels, value, quality, and success of their peers. The main purpose of this setting is to identify the difference between the expected performance and actual performance, thus giving the students the opportunity to improve, supporting their learning by providing them with enhanced feedbacks.



Peer assessment, used as a tool of performance monitoring by educators, or a tool of reflection by students, is a method adopted differently by instructors to increase pragmatic efficiency while reducing their workload. Particularly popular among teachers as an alternative way of evaluation, Peer assessment has received much attention in recent years for its effectiveness in the learning processes of students. This novel strategy of evaluation and learning is broadly used in a large variety of areas. The nature of these evaluation activities varies with the different areas of use, or the curriculum. Even production of widely diversified products or outcomes, portfolios, private presentations, and performance tasks, as well as other acts that require skills, maybe evaluated through peer assessment.

The participants of the peer assessment application may be assessors or assess, in parties varying from pairs to larger groups. Moreover, peer assessment may be applied one-sidedly, or reciprocally. The purpose of peer assessment application may vary from cognitive or metacognitive attainments of teaching to time-saving, etc. Further, the attainment of positive results incentivizes the in-silicon application of peer assessment. Ultimately, peer assessment may take place within or outside the class; it is experienced not only in school but throughout our lives. We all expect to be the assessor or assessee among our peers at different times and contexts. In conclusion, the application of peer assessment in schools may improve the transferable skills used in daily life.

### Significant of Peer Assessment

The recent years witnessed a never before seen growth in the numbers of students attending higher education institutions worldwide. Nevertheless, the rates of employment in many organizations are disproportionate to this growth. As a consequence, classroom sizes and the workloads of teachers increased dramatically. The increase in the then-current workload redounded palpably to the already grueling and tediously effort and time demanding field of assessment. Homework, which needs to be overly assigned if required comments and feedbacks are detailed, is rendered almost impossible to pursue due to the incompetency of the grading system corresponding to the resources. In this vein, this situation does not result with the equation of “larger classrooms, fewer resources, and more competition”; on the contrary, in cases of large classrooms, it reduces the time that the instructor spares for each student, as well as meaning that students will receive the feedback they need for their homework less frequently. The situation is not projected to change in case of further proceeding of cost-cutting measures.

One of the most encountered problems in the academic sense is the question of how to provide high-quality evaluation and feedback in crowded classrooms, for the number of students per teacher does not seem likely to change. A possible solution to this problem is to involve students in the learning processes and nontraditional evaluation approaches

such as peer assessment. This approach creates the opportunity to use time more efficiently for both the teachers and students who attend crowded classrooms, as well as improving learning efficiency, saving time in grading and feedback processes, and increasing the frequency of quantitative-qualitative feedbacks. Moreover, peer assessment is found to be effective in the improvement of interpersonal relationships within classrooms. Many other studies too, emphasize that peer assessment has a positive impact on cognitive, metacognitive, and social impact areas of students, and its necessity for students during their education. For the aforementioned reasons and more, peer assessment is a method needed to be employed.

### Advantages of Peer Assessment

Peer assessment has been successfully applied in preschools, elementary, middle, and high schools, including with special educational needs. The literature has indicated that peer assessment can result in improvements in the effectiveness and quality of learning at least as good as gains from teacher assessment. The benefits of peer assessment can be listed as follows:

- It gives students the opportunity to participate in the planning of their own learning schedule, as well as helping them identify their own strengths and weaknesses;
- It enables improving procedures at learning points, the target areas, as we call them;
- It helps in the development of metacognitive and transferable skills, production of an enhancing impact on reflective thinking and problem-solving skills throughout a student's education life.
- It is effective in the development of verbal communication and reconciliation skills, as well as of giving and taking criticism.
- It incentivizes students to have a sound grasp of the goals and purposes of the lesson, as well as the evaluation homework.
- It pushes the assessor to focus on the question of what the constituents of work, good or bad, should be.
- It enables going beyond the customary process of assessment, thus helps students comprehend why and how they will be rewarded with grades.
- It helps students have a better understanding of the requirements for the attainment of a certain standard, and enables them to be cognizant of the assessment process' details.

- When used effectively, it improves the quality of the work subject to assessment, as well as augmenting the understanding ability and self-confidence of students.
- It enables students to learn from each other's mistakes, criticize and review the performance samples of their peers by letting them study various writing styles, techniques, ideas, and skills (Race, 1998);
- It provides the opportunity to spotlight the contradictory applications employed by teachers in grading processes, and emphasize the importance of a work prepared in a clear, understandable, and reasonable format.
- It incentivizes students to reflect their own evaluation approaches on their evaluation homework.
- It constructs the cooperation of peer assessment in the development process of interdependent learning, mostly enabling the development of those skills effective at the interpersonal level, rather than inciting competition

### Concerns about Implementation of Peer Assessment

Several problems and limitations have repeatedly been associated with the process of assessing although the adoption of peer assessment is advocated in the literature. Most of these arise from the fact that the application of the peer assessment method in higher education as a stylistic assessment tool is still a novel idea. Academic personnel, teachers, and students' lacking proper experience concerning this method of assessment can be given as an example. With this regard, students expressed dislike in assessing their peers and preferred the responsibility to be taken by their teachers instead.

Another remarkable negative aspect of the method is, that many teachers, who manage to involve their students succeed in the learning process through cooperation, somewhat leave the internal control and management of their classes to their students. Nevertheless, some teachers are concerned about peer assessment's integration into the assessment process. The reason why is that students become a part of the assessment and grade their friends. What needs to be done, instead, is to involve them in the assessment process but leaving the final process of grading to teachers. Among the reasons are the example situations in which, close friends give better grades to each other and these being make-up grades, grading is prearranged, dominant students being given the highest grades, ultimately, even those who didn't even participate in the work benefit from the group grading. Avoidance of this negative situation can only be achieved through the employment of peer assessment along with self-assessment.

### Pedagogical Merits of Peer Assessment

The educational merits in the application of the method of peer assessment, which is adopted in various stages of education, are approached in broad strokes for a remarkably large number of students benefit from the method within the process.

### Feedback

The primary purpose of peer assessment is to provide students with feedback; therefore, this feedbacks should be confirmatory, suggestive, and ameliorative. Polite and positive feedbacks help reduce mistakes, improve knowledge, construct theoretical knowledge more profoundly, and create a positive impact on learning. The most prominent feature of peer assessment is that it is efficient since the students always outnumber the teachers in a class. Moreover, students tend to take the feedback given by their friends as transitory and individual, whereas those they receive from their teachers are construed as feedback of the authority. Therefore, feedbacks taken from peers are more substantial and beneficial for students.

### Cognitive Gains

Peer assessment gains are associated with both the assessor and assessee. This method of assessment can improve reflection on new situations, generalization, and metacognitive awareness, as well as incentivizing self-criticism. Therefore, the cognitive and metacognitive gains occur before, during, and after peer assessment application.

### Improvements in Works

Peer assessment, like cooperative learning, is an evaluation method that can complement other approaches. In a group where students evaluate each other, for instance, criticism received from peers is considered to be more motivating by individuals in terms of improving the quality of the product. Further, students who participate in the peer assessment as an assessor are expected to be more inventive. Thereby the personal performance and the quality of the product are improved.

### Saving Teachers' Time

It is stated that the method saves time for teachers since all students are assessed at once when students are involved in the assessment process. When the literature is considered, it is also seen that the method does not place a time-wise burden on teachers. However, some authors warn that it takes time to set up a quality peer assessment environment in senses of its organization, training, and monitoring processes. To avoid time loss, peer assessment should be used as an evaluation method when needed, rather than as a complementary comment to the feedbacks teachers provide. Otherwise, this method of

assessment turns more into a time-consuming application than a time-saver.

### Guidelines for the Implementation of Peer Assessment and Evaluation

It is essential that the assessment to be carried out during the teaching process is well-set and planned. A well-set setting leads to lasting and productive results. Secondly, it eases the implementation process when the peer assessment to be held in the education process is planned well, is in harmony with classroom activities and teacher's feedback. Therefore, considering these steps will make it easier to apply the method. When the literature is scanned, it is seen that the guidelines concerning the implementation of peer assessment are as follows:

#### Setting Expectations

It is essential to collaborate with colleagues, rather than establishing an individual setting. Once the setting is ready, the students to be involved in the process should be informed on the importance and the scope of the assessment. In the next stage, setting goals, taking student expectations into account, informing students on the procedure of assessment, organizing activities to explain expectations and their roles in the process render the process easier.

#### Matching Participants and Setting Contract

Pairing the participants, and organizing the communication. Mainly, the purpose should be to pair peers with similar abilities. If the peers attend the same classroom, they can be classified roughly according to their abilities. In this way, those student groups or pairs from the lowest levels of the classroom can participate in works corresponding to their levels; nevertheless, with the support of their teacher, these students too may gain more than expected, as they will be involved in a similar process although at a lower level.

#### Monitoring and Coaching

Quality education makes a remarkable difference. The students should be informed of the expectations from them, including the roles and actions to be taken by the assessors and assessee. In the next stage, the assessment process should be explained through a simulation of, for instance, two students assessing each other. For this, the assessor and assessee participating in the simulation should be monitored, given feedbacks if need be, and trained.

#### Evaluation and Giving Feedback

Convey your own observations as the evaluator to the students on their performances, and examine the reliability of their assessments. For this, teachers should keep their

expectations low while applying peer assessment in the beginning and guide their students by giving feedback. Those students at lower levels in particular should be encouraged. In this stage, teachers should compare their own assessments with their students, and discuss with them if there are major differences. This way, the differences will be observed to reduce in time, and the assessments peers made among themselves will yield better results in a sense of reliability.

### **Self Assessment**

Self-assessment is a method often used to foster student-centered learning, increase understanding of the learning process and reflection of insight of it, and encourage students to learn actively. In other words, self-assessment is defined as a process of observing, evaluating, understanding, and developing skills in student's behavior and thinking quality during the learning process.

Self-assessment, which develops students' own learning improvement step by step, enables them to be productive in the subjects they want to work in the future, and ensure to realize their own capabilities can be explained as students' judgment of the learning process of their own learning particularly their success level and learning outcome. The Foundation the aim of the assessment is to improve students' self-assessment skills because lifelong learning requires students' not only to work independently, also to evaluate their own success and development. After activities related to this obligation, purpose, or related sub-acquisitions, self-assessment forms are applied at certain intervals to see how well the students have transferred these skills to their lives or improvement that the practitioners have made on students.

### **Why Self-Assessment**

Self-Assessment promotes students in the learning process, and thus formative assessment theory supports the necessity of using self-assessment. Some sectors and experimental research on children in certain age ranges indicate the significance of the assessment for encouraging student learning. Self-assessment is one of the prime types of assessment methods things to do for providing effective learning that students need, acquisition of lifelong learning to evaluate accurately strengths and weaknesses of individuals, and their professional developments in the future. Therefore, it is crucial to gain the ability of self-assessment at of early age and also maintain at other education stages.

Students opt for self-assessment for assessment conducting by teachers because the assessment is more equitable, increases clarity about expectations, and provides students feedback they could use to enhance the quality of their assignments. Students emphasize that with self-assessment they focus on what they need to improve, whereas with teacher

feedback they focus on the grade or areas they fulfill well. Accordingly, self-assessment is not to signify learners cultivate their notions in isolation from aspects and judgments of the rest. People live together in a community, share mutual customs and traditions, and understanding. Thus, teachers, peers, or expertise are individuals of great importance for assessment, particularly teachers' behavior and expectations have a vital influence on students. All assessments by teachers, peers, or expertise have been measured by one's own assessment in aspects of learning, a useful part to conduct, and might control learners' access to learning facilities. However, assessment is of little educational value unless it helps develop and informs of the learners' ability to self-evaluate.

### Advantages of Self-Assessment

Self-assessment is to engage students to increase learning and achievement in careful, to boost academic self-regulation, or the tendency to monitor and manage one's own learning. The regulation and accomplishment are nearly engaged: As compared Students who know their aims to students do not know, it is clear that those who set the goals perform responsive plans to conduct them, and pursue the progress tend to learn much better in school. The essence of self-regulation is self-evaluation due to the fact that the evaluation involves awareness of the goals of duty and investigating one's improvement toward them. Self-regulation and also achievement can increase in consequence of self-evaluation.

Some of the research data based on teachers and parents demonstrate self-assessment increasing learners' achievement, constituting their motivation and perceptions, and affecting their desire to accomplish a complicated duty. Furthermore, it performs a potent relationship between learners' motivation and academic success as well as contributing to their learning. Moreover, a well-prepared self-assessment by the teacher provides feedback and gains a sense of belonging. Over against, a teacher is preferable to promote the changing needs of each learner.

Parents, caretakers, and teachers' feedback regarding students' behaviors, intelligence, and skills is to initiate the awareness of supraliminal at an early age. Thus, the feedback shape child's own understanding as a person both learner and personal. Accordingly, children with high prospects for school achievement and positive self-assessment are likely to be more successful in fulfilling the changing demands of primary schools.

Self-assessment is one of the alternative assessment methods. The assessment plays a vital role in compromise students' perceptions, advancing their success, and improve the responsiveness of their academic achievement. Nevertheless is thought that self-assessment is less reliable than other forms of assessment methods in general due to an individuals' own assessment. However, self-evaluation constitutes a crucial aspects insight of the whole Picture alongside other assessment methods, which evaluate

students' learning progress.

### **Disadvantages of Self-Assessment**

The reliability is the most obvious and discouraging issue in implementing self-assessment because students' lack of experience in self-evaluation believes mistakenly that and leads to mistakes, biases, and deceptions in self-evaluation. Particularly, it is valued challenges in the implementation of self-evaluation in primary schools. One of the foremost challenges is the lack of understanding of what children can achieve. Thus, young students need to mostly boost and assist in the fulfillment of self-evaluation than older students. Unfortunately, some adults misapprehend the natural development of children's abilities, and as a consequence, advise that self-evaluation strategies are not effective, do not meet their metacognitive skills, or only provide superficial data about children's tendencies and what they are capable of.

Another disadvantage of self-assessment in the learning process is students being excessively firm on themselves. This situation similarly originates from a misunderstanding of the assessment and what it is they're being asked to do, but can also have implications on learner confidence and self-reliance. It often stems from a place of low self-esteem, which can have a negative impact on their future studies.

Teachers and parents are not interested in self-evaluation excessively due to requiring considerable effort, time-consuming particularly in first grades, not marking depending on self-evaluation, and not providing continuity on diverse students group. Therefore, some teachers are to concern valuable time for standardized tests is being devoted to self-evaluation. Nevertheless, self-assessment enables actually significant opportunities for identifying students who misunderstood the evaluation, are struggling with low self-esteem.

### **Portfolio**

A portfolio is to use in a wide range of fields in general for ages, however, the use and implementation of the portfolio in education started in the 1990s. Diverse types of fields, such as artists, actors, photographers, and artisan have long employed portfolios to exhibit and register their craft. The using portfolio in instruction in the learning-teaching process is not new; nor is the usage in assessment a new practice.

Teachers have been successfully used portfolios to assess their students' work in the arts, humanities, and also core courses, including mathematics, science, and language. Portfolios, such as a mathematics portfolio, an art portfolio, perform a collection of learners' work intended to enable evidence of their comprehension. Thus, a teaching and learning portfolio indicates the students' learning, teaching, and personal growth



in a subject alongside students' development over a period of time. One of the uses of the portfolio is as an assessment tool that enables students to display their collective comprehension of learning processes; the second is theories as students conclude their period of time as well as the recording of that learning to be used as an introduction to the workplace. Hence, cultivated a proper portfolio can increase interaction between student and teacher, and ensure additional information regarding the student's progress and needs. The main purpose is to select and store students' daily work and important examples of assessments on a file.

Portfolios using as a method to encourage student learning are to become gradually popular in a variety of scope of education, and so it is not possible to make a sole definition for the portfolio because its definition may change according to the user and the aim of using portfolio. A portfolio is generally defined as a portable case for carrying newspapers, prints, or artworks. The portfolio is also defined as the collection of selected studies from the learning content in order to demonstrate students' learning. Some of the experts define portfolio as for the purpose of collection of work that showcases students' efforts, development, and achievements in one or more scopes. According to Grace (1992), a portfolio is "what the child has learned and how she has gone about learning; how she thinks, questions, analyzes, synthesizes, produces, creates; and how she interacts--intellectually, emotionally and socially--with others" (p.1).

Portfolio, which is known for so long, submits a comprehensive alternative assessment tool for both teachers and students. It is to create and maintains a control mechanism for students' work and documents; provide the shortcomings of students pertaining to the topics; enables students to analyze and realize what are good at, and all participants to be aware of their own deficiencies alongside noticing the developmental reflections of the strategies aimed at increasing the progress of students' skills. Accordingly, unlike standardized tests and key exams, the portfolio assessment allows students to review various studies and investigate the process from different perspectives. This is an approach in which unrelated and comprehensive studies are evaluated with a final grade in contrast to methods that are evaluated with a single grade. In this approach, it is collected studies including learning activities created from different perspectives in addition to the studies that have been done by students for a specific purpose. The collected studies enable teachers, students, or parents to understand the academic success of the students, the progress of their students in the process, and evaluate the learning process. It also ensures evidence for the student to observe the reflections of learning and change in the working process.

The portfolio is a record of the child's process of learning and was designed as an alternative assessment method owing to the fact that it is realistic and active. Hence, differently from traditional assessment methods, it considers not only the outcome of the learning, but also the process. The approach of a portfolio is the most important way to grasp the complex learning process because it deals with learning, teaching, and assessment in tandem. The portfolio enables teachers to attain quite a few of their most important unobtainable purposes, such as the observation of growth in students' knowledge, skills, and attitudes. The controversy concerning the goals and utility of portfolio proceeds with the recognition that portfolio occurs a core assessment method within the scope of education while acknowledged the trouble that they could become over-employed and may not be representative of learning. Thus, Marzano (1994) stated that a portfolio should not be used as the sole assessment approach considering the objectives of the assessment, but the other formal and informal assessment methods should boost the portfolio. Conversely, Danielson and Abrutyn (1997) indicate that it is a small wonder that portfolio is becoming as popular among trainers as they believed that the 'portfolio was a single strategy that did it all' (p. 5).

### The Purpose of Portfolio

Portfolio assessment is assumed as one of the alternative assessment methods due to covering authentic samples of a student's work. Many of the portfolio assessment's defenders emphasize that including students' outcomes makes the portfolio a predominant assessment instrument because it reveals the students' learning and their improvement over an extended period of time. The defenders have faith in the portfolio is a more true indicative indicator, which demonstrates learner's abilities truly than multiple-choice tests that enable immediate processing about what the learners can conduct within a short time. The portfolio is employable to point development in time; boost the learners' skills, and assess the learner's learning inside of a course or it can be combined all of three scopes. However, teachers should guide the portfolio process for establishing the aim of the final portfolio.

Portfolios are usable to achieve many purposes and make educational arrangements. It is used from universities to public schools to prove students, faculty students, staff, administrators' own individual performance and growth. The purpose of using a portfolio for students is to document the student's affective and cognitive development; enable students to reflect their thoughts on their assignments, and increase teacher-student interaction. The purpose of using a portfolio for teachers is to document the activities done in the classroom in tandem; monitor the style and quality of the teaching; evaluate the strengths and weaknesses of the practiced curriculum, and to develop a career. Unlike traditional assessment methods, portfolio assessment propounds a way of assessing student learning. It also ensures for teachers an opportunity to monitor their students in

a broader context, including taking risks, developing creative solutions, and learning to make judgments about their own performances.

### The Content of Portfolio

Multiple types of portfolios, including documentation portfolio, process portfolio, and showcases portfolio are functional for several significant aims at succeeding curriculum objectives in depth. The documentation portfolio offers a collection of yields from activities to drafts and fulfilled products in the course of time that indicates the progress and growth of a student. As for the process portfolio, its purpose is to combine a knowledge of students' own and their abilities toward mastery of learning, and so certificate entire stages of the learning process with particular highlight on reflection, metacognition, and think logs to demonstrate the importance of production process. Ultimately, a showcase portfolio is the best vitrine for students' completed works involving photographs, videotapes, records of work, written analyses, and dated artifacts because it provides mastery of key curriculum outcomes in due course. Those reflections enable students for demonstrating their individual growth and fulfillment of the ultimate product.

Portfolios display learner's efforts, progress, and attainments in one or more than one field of the curriculum consisting of elective content of students, picked and merit judging criteria, and proof of introspection. Hence, a portfolio cannot be comprised of any student products, a scrapbook, an album, a collection of photos, or a random collection of observations. It states that a portfolio, in general, includes chosen multifaceted samples of students' best efforts and systematic observations related to assess outcomes of instructional purposes. The portfolio may contain a wide variety of materials such as student self-reflection, research, problems and strategies, diagrams, photographs, pictures, group assignments and projects reading logs, teacher anecdotes, teacher-completed checklists, and etc.

Samples of student's weekly or daily work and written exams, poems, reading logs, sample journal pages, written summaries, audiotapes of oral readings, videotapes of group projects teacher notes, teacher-completed checklists, letters, self-reflective forms can be placed in a portfolio file. Furthermore, the portfolio may be involved reading passages written for informational and entertainment purposes, topics discussed in class and other experiences, teacher-prepared tests, quizzes, sentence completion questions, attitude questionnaires; story reading pieces, written introductions, student biographies, special projects, reaction articles written in response to the news in the newspaper. Moreover, the portfolio comprises students' written assignments (drafts or finished parts), group assignments and projects, students' letters, assignments that students find difficult to do again, and samples selected from special assignments, and teacher notes.

Portfolio as an assessment method has been successfully used in the evaluation of a

course, which offers a systematic teacher collection and learner progressive a literal endeavor during the learning process. In addition, the assessment is particularly popular for performance-oriented disciplines, including performing arts, physical education, clothing and textiles, food and nutrition, visual art and design, architecture, music, dance, and drama where artifacts of work speak to skills attained and developmental growth and maturity over time. In this way, portfolios enlighten students, teachers, and significant others. Thus, they are used effectively as a communication tool for monitoring students' progress in reading and their improvements, and by teachers to keep an account of observations and the students' work as supporting convincing proof of conclusions they draw about students. They are also influential in enabling teachers with a list of instructions that base instructional decisions for the evaluation of student progress. Moreover, they provide information about outcomes to improve teaching, which is one of the major dimensions of high quality of assessment.

### The Use of Portfolio

Portfolio assessment made a remarkable prelude in the 1990s and drew an evaluation image with great promise. Evaluation would correct the faults of traditional assessment practice; assist, but not harm or destroy the process; act as a bridge for the success of the student in the learning process, but would not prevent the evaluation. A portfolio is a great number of appealing and potential advantages in particular as compared to traditional standardized tests because it includes educational products that are clearly presented in the classroom.

### The Pros of Using a Portfolio Assessment

- Participation of students in preparing their personal portfolios makes them active in their learning.
- Supports the purpose of being a lifelong learner, values , and increases feelings of self-efficacy.
- Describes what students know and what they can do
- Enables students to gain and develop a multidimensional perspective over time.
- Stimulate learners to participate in a portfolio and reflect their own thoughts.
- Provides a link between teaching and assessment.
- Portfolio, as a student-oriented approach, encourages students to actively engage in every aspect of their learning such as arranging purposes, choosing strategy

and materials, and assessing the outcomes (Lo, 2010).

- Grades the process instead of a result-oriented single grade since it provides students an opportunity to exhibit and see the works they have done in the process, and so the process of learning evaluates.
- Give learners an opportunity to focus their own attention on the learning process; motivate them to learn with meaningful and interesting activities; develop cooperation between student-student and student-teacher; participate in the assessment together by student and teacher, and evaluate in a systematic way by a teacher.

### The Cons of Using a Portfolio Assessment

- Improving and assessing a portfolio is time-consuming. For, it is a demanding effort in which you can rapidly drop behind and takes much time for both learner and teacher.
- Portfolio assessment is inherently subjective. Teachers use a rubric to assess students, however, the nature of a portfolio obstructs the assessment to remain objective and true to the rubric. In spite of similar students working on the same learning standard, they might have completely distinct approaches as learning may not be the same.
- Marking a portfolio cannot be easy because of the differences among each one. A well-prepared rubric enables a teacher to mark the content of a student's portfolio, however, even then, the scores of subjectivity complicate to assign marks of a portfolio reasonably when investigating one portfolio towards the other one. Yet another grading challenge with a portfolio is to let a student making a show of her strengths but conceals her weaknesses, and thus portfolio provides an unfilled picture of what a student comprehends. A portfolio in general does not include in the scope of a student's ability to remember only the facts either, and thus it cannot stand alone without other more traditional forms of assessment to go with them.

### Rubric

A scale list of criteria that prominently describes what a range of appropriate and inappropriate performance looks like for the teachers and students. These scales contain a set of criteria that are relevant to evaluating, belief, practice, performance, and producing an effective assessment. In a general sense, it is described four or six levels of quality for each criterion in a rubric. It also assists learners to assess themselves, and understand what is expected of a task, and what expected quality of the task is, and what

results of product look like. Although educators incline to define the word rubric in slightly different ways, the widely accepted definition of a rubric is a document in which expectations for a task by itemizing according to certain criteria and values, or what criteria count, and representing of levels of quality from excellent to poor. Rubrics have become widespread with the use of teachers as a means of communicating expectations for the task, enabling focused feedback on works in progress, giving a grade to the created products, and expressing the criteria that should be met for the evaluation of the assignment.

The use of rubrics is poor in spite of being known widely by teachers. The underlying reason is that the purpose of the rubrics is not quite understood by the teachers; it is thought the rubrics' validity and reliability is a drop in the ocean, and to be confusing by the students and parents, and the using of rubrics takes a lot of time. However, the rubrics provide for teachers accurate and comprehensive assessment opportunities in evaluating students' processes, skills, and products when they are considered as an assessment tool and designed in view of the fact the stages of writing, comprehension, and development. Rubrics are also employed to give a grade to student outcome and can teach as well as evaluate. Furthermore, they have a perspective to attain reliable decisions about the quality of students' own work along with developing their understanding and abilities. Moreover, they are a student-centered approach to use as an assessment method when used as part of a formative to identify students using evaluation.

Checklists are an appropriate choice for evaluation in limited situations concerning whether certain criteria for performance are met, however do not have possession of a structure defining performance levels. The rating scales can define the performance of the measured feature at various levels and allow to see to what extent the criteria are to be satisfied. Rubrics are similar to checklists, but checklists are simply answered "yes" or "no" questions. As for rubrics, they have performance grades such as low-medium-high (Quinlan, 2006). Namely, the difference between any rubric and a checklist is to make only a list of the criteria for an assignment. Checklists are incapable of doing what rubrics are able to do, including define desired qualities and prevalent pitfalls in learner tasks through checklists can be used as a helpful assessment tool.

### Advantages of Rubrics

Rubrics orient teachers at all levels towards learning goals, from primary school to graduate level. These clarify the purposes of learning, design of instruction in line with these purposes, communication the objectives to students, leading feedback on the progress of the students toward the goals, and giving of the grade corresponding to the final outcome in terms of the degree to which the purposes were met. The benefits of using rubrics are numerous, and thus rubrics are usable before, during, and after

homework.

Instructional rubrics lead teachers to clarify their expectations and focus on their instruction. Teachers set their goals for students to select or constitute a project that bridges over them learn and demonstrate their learning as well as designing a rubric for the project in order to commence the process of composing a course or unit. The criteria in the rubric allow students to experience each performance gradually, and to determine what students are able to do and their values. Also, rubrics provide a quick and clear assessment of performance levels, and thus it is an invaluable implementation for teachers and students. The created rubrics for the evaluation of students' and in particular teachers' student work constitute a substantial aspect of alternative assessment. Because instructional rubrics facilitate teachers to manifest the learning process, performance, and student progress.

Teachers ensure the formation of higher quality products and increase the reliability of the criteria as they determine the criteria and standards of assignment in tandem with their students. In addition, the rubric prepared with the cooperation of the teachers increases students' self-worth, academic self-values, and willingness to work academically. Rubrics mitigate contradictions and deficiencies in the evaluation process and provide students with explicit information about their own inadequacies and competencies when teachers share their decisions about students' evaluations using rubrics. Rubrics enable assessment of the purpose and focus attention on key points of performance, and ensure student-specific feedback on the level of performance (Demir, 2010). Feedbacks have an aspect of pedagogic thoroughly, and this demonstrates the student's development in the process, particular strengths and weaknesses of the issued duty with the feedback to themselves through the rubrics.

Rubrics evaluate students' assignments quickly and efficiently and be the assistance of teachers to present guardian of students and whom it may concern the scoring of students' work. The best rubrics are those that support students' learning and develop complex thinking skills with instructional tools. Rubrics serve the purpose of learning as well as an assessment when used properly. They reveal the unexplicit distinction between teaching and assessment, such as portfolios, exhibits, and other authentic assessment approaches. Hence, they are very frequently preferred in terms of teaching.

Rubrics also gain much favor with students. The students perform their assignments according to required objectives when they know the criteria in advance of their performance task. Besides, well-defined criteria provide for a distinct description of quality performance, and thus students don't need to guess what is significant, what is insignificant, and how teachers will judge their performance tasks.

### Disadvantages of Rubrics

Rubrics create a problem in terms of time-consuming, explaining orally to students, and giving feedback. They are not entirely self-explanatory, and thus students need to be informed about the meaning of the criteria in the rubrics, understanding rubrics and their use. Rubrics cannot replace an effective teaching method although a perfectly crafted rubric cannot change the reality of providing a model that student needs, feedback, opportunities to ask questions, lecture repetition, etc. Anyone can download a rubric from any website and resource, however, using it as a decent instruction tool is another problem. In addition, beyond grading, rubrics are not exactly a decent tool because it serves the purpose of learning and teaching as well as evaluation.

Students may not become aware of the qualities in their work although they know what to look for, because the students have a less improved understanding of how to common on the criteria. The distinction between teacher and learner decisions is properly attributable to the learners' fewer sense of the criteria used and indeed, not to the performance. Thus, it is asserted that rubrics should be fulfilled with bonding, or examples, to exemplify the diverse levels of achievements. The bonding might be enrolled in descriptions or, rather, genuine work samples. Though using rubrics is useful, the usage of rubrics may be remain limited by the quality of the scoring rubrics used to assess students' performance.

### How to Create Rubrics

Before beginning the development of a rubric, the teacher should clearly visualize what is expected from the written project, product, or process. The expectations, or the vision of what the written work should look like, may be described in terms of "look for" (for example, the teacher will look for creative word choices based on the week's mini-lessons in writers' workshop or the expectations may be described in measurable standards (for example, "look for five paragraphs").

The first step in the development of rubric is to create scoring rubric steps in which the features needed are clearly defined, and a student performs adequately in his work. However, the teacher should clearly visualize what he/she expects from a project, process, or product before starting improving the steps of a rubric. The features or the vision demonstrate what the project should contain, the expectations may be described in measurable standards. Criteria should be developed in the rubric such as "excellent, adequate and improvement required".

After developing the criteria of a rubric, the chief point to the success of the project is to be considered by teachers asking the students' feelings at first. Then, asked the students whether they would like to have more time to work on a project; which components should be included more in the completed project; or would they rather have less time



and just a few criteria on the rubric, but more focused? Instructors may cooperatively improve a draft rubric that is valid and jointly shared with learner/instructor ownership by questioning students and listening to their responses. As it is conducted in this way, a valid and participatory rubric will be created a sense of belonging will be given to students.

A well-structured rubric can be used as an assessment tool because the criteria and characteristics in which the teacher wants to measure are included in the rubric. Evaluation is to be easier and more spontaneously in this manner. Both students and parents know which grade each individual can receive since teachers are practical in developing rubrics.

### Developing Rubric Phases

- Determine the purpose of the rubric
- Define clearly the assessment points
- Decide on proficiency levels
- Create a key for the behaviors, products, or skills the assignment endeavor to measure.
- Write short criteria for the behavior, product, or proficiency level of each skill. The important thing here is to be able to distinguish the criteria between the levels. Skills can belong to a lower or higher criterion at any level.
- Give shape of a draft rubric

### Points to Consider during the Development of a Rubric

- The set of criteria is to be consistent with the targeted objectives.
- The criteria supply the characteristics of the outcome
- Rubrics should be written definitively and perceptibly according to students' proficiency levels
- The scoring system should be meaningful and clear.
- Provide clearly the variances in performance levels (Moskal, 2000).

### Types of Rubrics

Rubrics are divided as Holistic and Analytical, and the difference between these rubrics

varies depending on the type of work. However, a subtle distinction is located among them. Each item in analytical rubrics is separately scored, whereas a sole point is graded to all items in total in holistic rubrics. However, the analytical rubric chosen does not rule out the possibility of holistic rubrics.

### *Holistic Rubrics*

An advantage of holistic rubrics is their efficiency in assessing a single skill like writing proficiency. The timed, impromptu essay, which traditionally employs holistic scoring, is cited as the best-researched assessment type (Weigle, 2002, p. 59). First of all, teachers are aware of the advantage of assessment of their students' writing from the beginning of the semester compared to at the end of it. Second, a holistic rubric is to evaluate the performance of the students or all their work by grading a single point as a result of a comprehensive classification. Basically, the purpose of holistic rubrics is to mark a total single point evaluating the important items to be measured in the performance or outcome presented, which is seen in a sample below on chart 4.

*A holistic* rubric is a form of assessment that indicates students' abilities and knowledge and provides a comprehensive assessment of students' work within a framework alongside allowing teachers to assess better students' learning. Portfolios, reports, posters, pictures, oral presentations, poems, plays, essays, and laboratory findings are examples of holistic assessment rubrics. It is in general used for writing, other creative artistic works, and also enables for evaluation focusing on the whole product or process rather than dwelling on the individual elements of a product. Lastly, it is usable for the outcome of learning is required to be evaluated in a total point. It is identified generally the features of student performance. Particularly, the rating is a sole score based on the quality of student performance.

#### **holistic rubric**

Score	Description
1	Application is complete and all materials are excellent. Candidate is clearly a great fit for the program.
2	Application is complete and most materials are above average. Candidate is a potentially good fit for the program.
3	Application is mostly complete with materials of variable quality. Candidate is an unlikely fit for the program.
4	Application is incomplete and/or most (if not all) materials are of poor quality. Candidate is a poor fit for the program.

### Analytic Rubrics

Analytic rubrics compensate for a wide range of the shortcomings of holistic rubrics though they have validity and reliability issues. The primary advantage of analytic rubrics is their accomplishment to assess numerous features of a single performance, presenting a depth of data that can define particular strengths and deficiencies of a curriculum. Analytic rubrics employ comprehensively in assessing the performance of learners, and require planning and identifying the important knowledge, skill, or activity that the student needs to highlight. Students’ outcome and their processes are divided into sections and each criterion and skill is independently evaluated, and then summed score estimates gathering issued points. Scoring in this way provides teachers and students with more detailed information about the strengths and weaknesses of students’ skills than holistic rubrics.

The functionality of analytic rubrics is beyond any writing assessment purposes since the rubric can direct usability specialists on how to assess users’ experiences with navigating their work. The outcomes from these assessments could perform a checks-and-balances system that illustrates a real efficiency of yields and services rather than supposed impact. Analytic rubrics are also like a checklist, each item is evaluated separately, and each of their grades according to itself on a descriptive measurement. It is ensured that each item is evaluated in stages and scored separately, and thus strengths of students and their weaknesses demonstrate in the studies produced by the students. With the conducted assessments in this way, students are better prepared for the future improving themselves.

<b>Analytical Rubric Example</b>				
	<b>Excellent (9-10)</b>	<b>Good (7-8)</b>	<b>Satisfactory (5-6)</b>	<b>Needs Improvement (0-4)</b>
<b>Idea explanation</b>	<b>Thoroughly explained ideas</b>	<b>Ideas explained</b>	<b>Ideas somewhat explained</b>	<b>Little or no explanation of ideas</b>
<b>Coherency</b>	<b>Extremely coherent writing</b>	<b>Coherent writing</b>	<b>Somewhat coherent</b>	<b>Lacks coherency</b>
<b>Grammar</b>	<b>Few errors</b>	<b>Some errors</b>	<b>Many errors</b>	<b>Many errors that hurt understanding</b>

Comparing of Analytic and Holistic Rubrics

Evaluators evaluate performances using holistic or analytical rubrics depending on the purpose. The holistic rubric reflects the overall quality of the performance by giving a total score, and thus this approach is in general preferred to be used in the instantaneous evaluation. The analytical rubric provides an assessment of elements, including the content, appearance, and design of the performance in return for a score that meets certain characteristics. Each feature grades a single numerical grade averaged in the overall assessment. This method is recommended for daytime using because it guides evaluators in giving feedback for control.

Both holistic and analytic rubrics have validity and reliability. However, in the holistic assessment, a single score from each rater is calculated, so one of the advantages of a holistic rubric is to provide the ability to evaluate a sole skill. When any work is evaluated with a holistic rubric, evaluators notice the progress of the student by comparing the situation of the individuals at the beginning of the study with the situation reached. Analytical rubrics have reliability issues. Therefore, overly detailed analytical rubrics can reveal lead to a subjective rating based on the evaluator’s interpretation. Nevertheless, analytic rubrics are highly reliable in particular with inexperienced raters and complete multiple of the shortcomings of holistic rubrics. Besides, the analytic assessment generates a higher rate of interrater reliability than the holistic assessment because of how the agreement score is calculated. It also provides in detailed data by defining the crucial points in the assessment. In the holistic assessment, a single grade is calculated from each evaluator. In a five-dimensional analytical rubric, contradictions between categories are proofread and the average grade from each rater is calculated.



Types of rubrics

Comparison of holistic and analytic rubrics (Weigle, 2002)

Quality	Holistic	Analytic
Reliability	Lower (most of the time)	Higher
Construct Validity	It assumes all relevant aspects of abilities develop at the same rate	It is more appropriate for L2 learners
Practicality	Fast and easy	Time-consuming
Impact	A single score may be misleading	It can provide more useful diagnostic information
Authenticity	Reading a rubric holistically is a more natural process	Raters may tend to read holistically and adjust analytical scores to match holistic impressions

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Project Assignment

Alternative assessment approach performs a new form of assessment for teaching and

learning with its challenges teachers have to cope with. Teachers are struggling with some assessment challenges during conducting project assignments as well because the teacher's task has been to "acquire formal knowledge, find efficient ways of sharing it, and determine whether pupils have learned what was taught" (Cuban, 1993, p. 248). The current state becomes different rather significantly during project tasks in which learners build their knowledge in tandem with their peers and teachers. The learners' role has altered from being a passive receiver to becoming an active learner and producer. Thus, the project, which is one of the alternative assessment methods, has become a compulsory element of education in the 1997 Norwegian National Curriculum. It was expressed to the teachers that the project assignment should contain 20% of their teaching process in the curriculum.

Project assignments have been used in education since 1997 for studies that students perform in groups or individually under the guidance of the course teacher; in order to examine, research, and comment on a field/subject of their choice; to develop opinions, reach new information; produce original thoughts and make inferences. In another definition, project assignments that cover music, media, art, science, language, and social sciences are to the purpose for students to produce something on their own regarding a topic in the curriculum.

Project work assessment, including both theoretical and practical aspects, generates a progressive teaching/learning approach that take aimed at boosting student's deal with complicated real-life challenges. The project can potentially transfer to learner's distinct and significant course topic content from multiple disciplines in concrete yet in the form of comprehensive. It increases higher-order thinking abilities such as problem-solving, value judgment, decision-making, and data analysis. Hence, this is highlighted due to the fact that learners reveal inquiries, collect information, comment on findings, and employ convincing proof to make inferences. It may be actively attended as a whole class, group, or individual to constitute a product to exhibit student's comprehension of natural and scientific phenomena. Some researchers claim that relevant project assignments also incline to be collaborative, open-ended, and generate problems with answers that are often not predetermined.

Project work is one of the ways that students implement at the point of showing and applying the learned knowledge. There are criteria developed in accordance with the stages of the project, so, those criteria are significant in that the students enable to understand what is expected of them. It is needed to create by students in tandem to determine the stages of the project criteria, students' interests, student and teacher expectations, designate the strengths and weaknesses of individuals, and their problem-solving skills. This situation provides more realistic project works to implement as it reflects the interests and skills of the students.

Some important inquiries should be asked during all project-based assessment process: What are the goals of the assessment process? Are we doing this assessment for whom? What is going to be assessed? Who is going to conduct the assessment? And how should it be conducted? (Calfée & Masuda, 1997; Franke-Wikberg & Lundgren, 1990; Gipps, 1994). Another inquiry could be how to assess all the stages that occur in the processes of project work. Then, the important thing in the project work is to determine the problem statement that is going to direct the student's work. Both teacher and student are responsible for determining the problem statement that composes the beginning of the project work. The teacher demonstrates to the students the connections about the subject, questions, stages they can examine, and the important points that they should focus on during the project process however, the teacher cannot by no means enforce the student to work on a project with a known outcome. The student is given a space to form the questions and answers of the study. The student plans the purpose of the project, the steps and strategies to be followed, the materials to be used, and the situations that may be encountered. The student can construct the work and get help in collaboration with the teacher and friends during the project process. Ultimately, the students can be evaluated on how they worked throughout the process and how they reached the result of the project study.

### Considerations in the Preparation of the Project Assignment

- Project topics can be determined by the coterie teachers, and students can also determine a project topic individually or as a group according to their scopes of interest. Project topics can be related to a single field or interdisciplinary. The project topics given should be such as to suitable for the level of the students and can be done according to local opportunities.
- The process from the design to the exhibit of the project assists the development of scientific process skills as it includes scientific process steps. Projects, guidelines, and scoring standards should be prepared.
- In projects to be carried out in groups, it should be noticed for the formation of heterogeneous groups in terms of characteristics of students' gender and achievement, etc.
- Each group should create a work schedule for itself.
- The distribution of duties of the group members should be made clear for each stage of the project. The teacher's approval is obtained making the distribution of duty by the group members
- At each stage of the project, feedback is given to the group members by the

teacher whether the tasks are done or not is checked at the end of the stage.

### Evaluation of Project Assignment

A teacher conducts an assessment of the project work and uses rating scoring scales (rubric) for the evaluation of these assignments. The outcome that students manifest in the process and at the end of the process is taken into consideration as making the evaluation.

Expectations from students in project studies and evaluation criteria should be determined in advance and shared with students. It is presented below some of the criteria that can be used in the evaluation of the project work done by students.

- ✓ Ability to work independently
- ✓ Collaboration with the group
- ✓ Accommodate to changing circumstances
- ✓ Ability to handle, solve or avoid problems
- ✓ Design and presentation of the show
- ✓ The originality of approach to the subject
- ✓ Theoretical skills/psychomotor skills
- ✓ Determining the aim
- ✓ Using time effectively and efficiently (Milli Eğitim Bakanlığı [MEB], 2009).

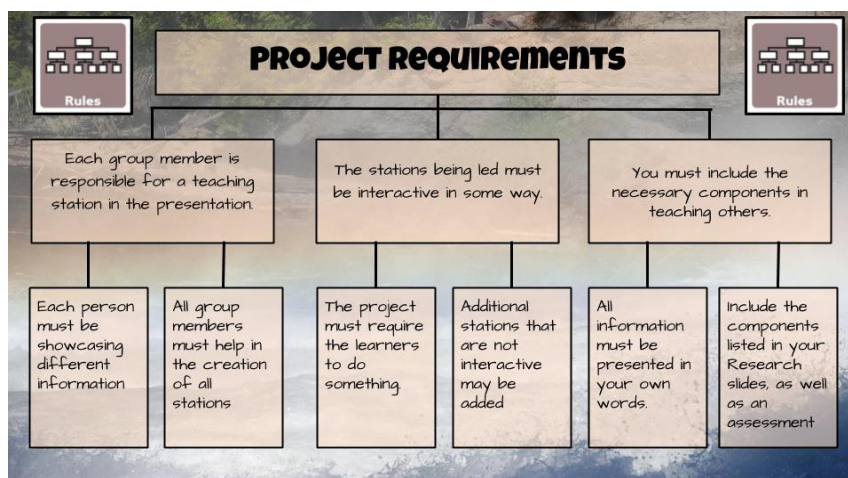


Figure 4. Project Requirements for Primary School Students

### **Diagnostic Tree**

A student needs to establish a connection with course concepts with daily life experiences because interlink concepts enable related data to be permanent. Students construct concepts in their minds by confirming and adapting their own impressions as scientific truth in a meaningful coherent manner. They might indicate alternate concepts, which are against scientific facts in this process. However, students' misconceptions regarding their courses can be hardly in improving high-level concepts and linking previous knowledge with new one properly. Thus, students' alternative concepts should be identified at first.

The diagnostic tree is defined by Nichols (1994) as a diagnostic alternative assessment method, which "makes explicit the test developer's substantive assumptions regarding the processes and knowledge structures a performer in the test domain would use, how the processes and knowledge structures develop, and how more competent perform differ from less competent performers" (p. 578). Many techniques and strategies, which are named conceptual change strategies employed to reflect opinions and shifting misconceptions in the cognitive structure of the learners. Both Diagnostic Tree tests and Structural grid use as strategies of cognitive structure. In that respect, the diagnostic tree is based on designing for cognitive diagnostic objectives are unlike traditional assessment methods in that the tree does not only ground on logical taxonomies and features of content to identify purposes. For, the diagnostic endeavors to perform the content is indefinably oriented to discovery function of test in replying to questions or assignments.

Cognitive diagnostic evaluation is one of the alternative assessment methods that are similar to true-false questions, which is one of the traditional assessment methods, however, the diagnostic evaluation method uses to determine what students have learned about the subject, and what they have not learned. This true-false type of assessment method includes related questions, and results of each true-false decision that influence or indicate the next true-false decision. It is also an assessment tool that provides students to conclude by giving correct or incorrect answers to interrelated propositions placed on the diagram tree and aims to retain knowledge patterns with misconceptions in the minds of students.

A student is expected to choose a correct answer giving the right and not right statements in order from general to specific through the cognitive assessment method. Accordingly, it constitutes a diagnostic tree involving 8 or 16 selected questions. This method is used for identifying students' mistakes and shortcomings in their learning of topics; revealing their misconceptions; designating the prior knowledge of students, and realizing the learning under cover of theorems. Furthermore, the diagnostic tree is preferable to ask gradual questions on the same topic. Thus, the difficulty of the level of questions



increases as the number of branching enhances, and questions prepared from concrete to abstract or from general to specific are directed to students. The chance of success is lower compare to the multiple-choice test. However, it is not preferred much due to the difficulties in its preparation.

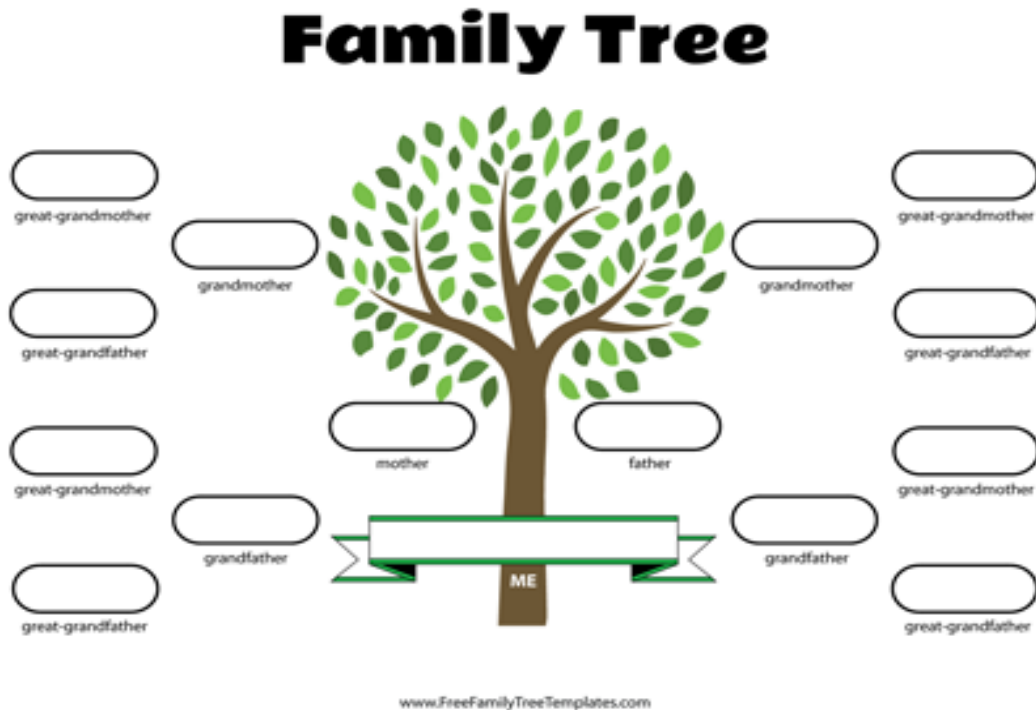


Figure 3. Diagnostic Tree for 3<sup>rd</sup> grade English Lesson

### Preparing an Assessment Activity using Diagnostic Tree

The diagnostic assessment tree arranges at seven stages:

- Investigate acquisitions of the curriculum in which activities will be held
- Determine topics that students have more misconceptions
- Choose 8 or 16 true-false types of questions from theorems
- Place the questions appropriately in the diagnostic tree diagram
- Write the outputs of the diagnostic tree and complete it after the questions are placed on the diagram
- Write a short instruction that enables students to learn about the diagnostic branched tree
- Prepare statements like theorems that can be easily understood by students and are suitable for students' own level. It is ensured that the statements are prepared in a structure that can query an interconnected knowledge network. This is one

of the most important features that distinguished the diagnostic branched tree method from true-false questions.

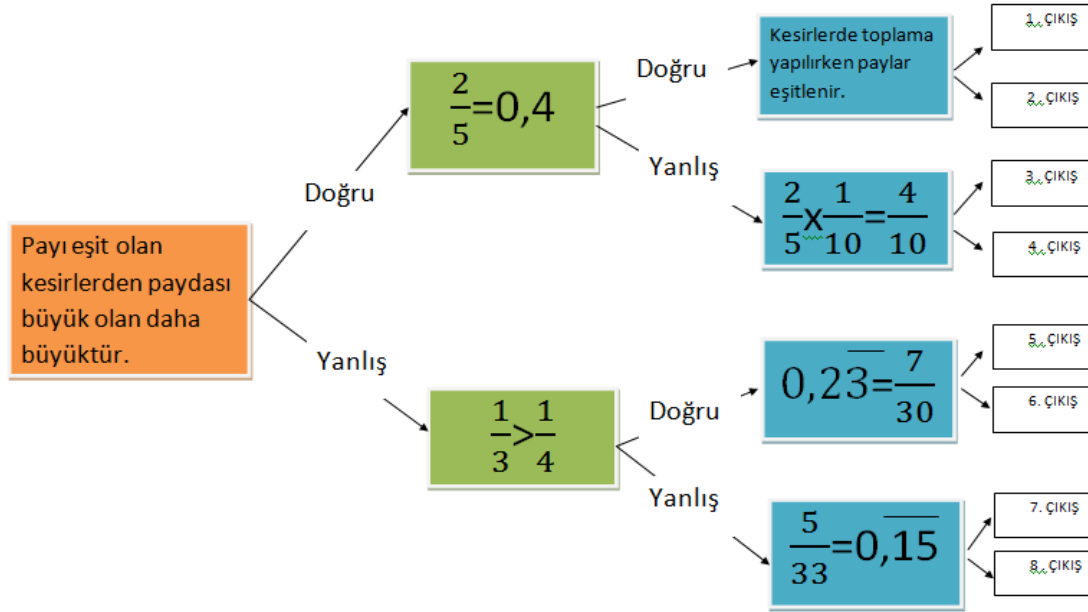


Figure 4. It is written Turkish, but: True (Dogru), False (Yanlis), Exit (Cikis).

### Scoring and Interpretation of the Diagnostic Tree Method

As seen in the above figure, eight exit points are obtained indicative of the different paths followed by each student, and scoring conducts considering the followed process. Teachers determine how it is reached to exists, that is how many correct and incorrect expressions were reached. Then, the teacher can score and evaluate according to the number of true and false. Evaluation can be performed giving 1 point to the correct questions in the scoring and 0 points to the wrongs or questions are an array of general to specific and from easy to difficult. Each question has a scoring value according to its difficulty level. The calculation is done over 100, and thus, a student can easily comprehend which exit he get out and how many points this exit corresponds to out of 100 points. The evaluation regarding the diagnostic assessment tree is in Table 1.

Table 1

Exits	Answers	Points (P)	Total
1.Exit	1 (T), 2 (T) ve 4 (T)	25p+35p+40p	100 p
2.Exit	1 (T), 2 (T) ve 4 (F)	25p+35 p+0p	60 p
3.Exit	1 (T), 2 (F) ve 5 (T)	25p+0 p+40p	65 p
4.Exit	1 (T), 2 (F) ve 5 (F)	25p+0 p+0p	25 p
5.Exit	1 (F), 3 (T) ve 6 (T)	0p+35 p+40p	75 p
6.Exit	1 (F), 3 (T) ve 6 (F)	0p+35 p+0p	35 p
7.Exit	1 (F), 3 (T) ve 7 (T)	0p+0p+40 p	40 p
8. Exit	1 (F), 3 (T) ve 7 (T)	0p+0p +0p	0 p

### Structural Grid

The structural grid is one of the alternative assessment methods, which gives an insight into the sub concepts and connections among students' own perceptions in order to assess their level of deep understanding. It is also to employ as a measurement tool to identify the performance of students in the learning process. Thus, structural grids provide a proper assessment method to realize these objectives alongside they are utilizable for diagnosis and evaluation. The grid was started to use as an assessment tool by Egan (1972) in his research and development of it are rooted other researchers for use in science (Duncan, 1974; Johnstone & Mughol, 1978, 1979; Johnstone, 1981; Johnstone et al., 1981; MacGuire & Johnstone, 1987; Scottish Exam Board, 1997). For, scientific information does not merely consist of lists of factual knowledge but is an interconnected network of ideas and concepts. Students should learn new ideas as part of such a related network of information. For this reason, this measurement tool is an important technique in terms of revealing the cognitive misconceptions and knowledge deficiencies of the student.

Traditional assessment methods, which are based only on multiple-choice tests emphasize the existence or non-existence of knowledge, however, they do not provide any information about cognitive structures that exist in the mind of a student, whereas alternative assessment methods, which measured knowledge of the learners do. As an alternative assessment method, the structural grid evaluates in part students' learning and highlights the deficiencies of each of the learners. Accordingly, the grid is one of the cognitive structure strategies in the form of a limited numbered grid focused on pointing out the cognitive structures of learners.

The structural grid method, including contents of the boxes, which covers words, phrases, pictures, equations, definitions, numbers, etc., is quite a change from multiple-choice tests because the learners are potentially selecting the boxes apposite to answer the question and to put them in logical succession respectively. That is why this technique is known as the "Structural Communication grid" (Johnstone, Bahar, & Hansell, 2000). The most significant feature of the grid is to gauge meaningful learning and exploring students' misconceptions; to highlight the usefulness of the grid for evaluation the objectives. It

also considers a substitute for multiple-choice questions due to being a useful diagnostic assessment tool as an alternative to multiple choice tests.

The cognitive structures of students are discovered using a structural grid. The size of the grid method ranges, and so the cells account designates each of the grids prepared concerning the level of the students. There is no exact, hard, and fast rule for the size of the grid test. Structural grids of diverse sizes and the cells of the grid are numbered as 3x3, 3x4, 4x4, which are developed in harmony with the range of the learners (Johnstone et al., 2000). The researcher exhibits developed 3x4 structural grid for the present book chapter:

1	2	3	4
5	6	7	8
9	10	11	12

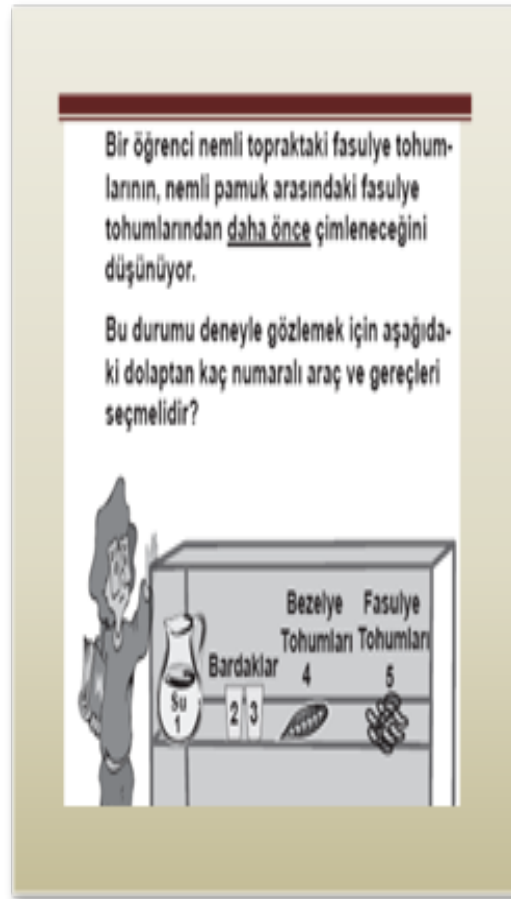
Figure 5 shows the basic structure of the grid that contains numbers, however, the grid includes in general not only numbers, also a word, phrase, symbol, diagram, picture, etc., and thus the grid is an equal proper assessment method both for verbal learners and visual. The superiority of the grid from the multiple-choice test is based on the fact that it is precisely free from guessing casual agents. A couple diverse of scoring criteria are situated in two kinds of forms of proper and tailored questions. In the case of regular questions, only should be put elective boxes against each question. However, the grid is in equal terms of significance to place distinct cell numbers in a logical sequence for choosing a question.

### The Use of Structural Grid

Concepts, pictures, numbers, equations, definitions, or formulas in the structural grid are randomly placed in boxes. Changing the content is important in terms of providing both visual and analytical thinking. The first question and put possible answers in boxes prepared by the teacher, and the second question and its probable answers are similarly placed in the same boxes. They could or not be connected to the first question and its answer to them. The process should proceed till the entire boxes are filled in. Each box, which covers a text, a graph, a table, etc., includes distinct sorts of alternatives and answers. This boosts teachers to perform objectively productive assessment decisions.

Students are asked different questions about a subject to mark the boxes, which they find the correct box for each question and arrange the number of the box logically and functionally according to their perceptions. Sometimes, they are asked in placed elective boxes in a designated order. This is one of the crucial points of view of the structural grid technique because they should choose the correct ones first and then locate them in the correct place. This feature demonstrates the superiority of the grid from multiple-choice tests. In this way, the learner cannot reach to answer by chance because not aware of a single correct answer to be selected, not knowing the number of boxes that are valid for each question to put potential answers in order. Therefore, it is determinable the misconceptions and deficiencies that occurred in the mind of the student from the wrong boxes chosen, and what they have learned from the correct boxes.

The below figures show some examples of the structural grid taken from the second exam in Turkey.



It is complicated to harness the grid using pencil and paper, and thus a structural grid tester which is software was developed. This program provides an environment in which a structural grid test could be designed and fully evaluated. The software promotes multiple distinct factors to be involved in the grid such as elaborated analysis of students' responses. The foundation virtue of the software relies on its capacity to evaluate students' responses. Thus, it provides users to get a clear picture of different student features.

## Presentation

Presentation is one of the alternative assessment methods for sharing ideas of activity and illuminate comprehension verbally. The purpose of the presentation is to obtain the teacher to find out what students are thinking about a subject, and how they express it in their own words. Thus, presentation assignments should enable opportunities for the learners to think through questions and express their ideas. It also should indicate and clarify what they have mastered; verify their own perceptions, and reflect in their knowledge, and on the views of others.

The presentation may be used in many aspects of the field such as speaking, language training, and art. Students can be evaluated using control lists, rubrics, or peer assessment, and thus it provides good information about student's critical thinking skills. The presentation is a proper tool to collect data regarding the level of student's recall, comprehension, and declamation alongside the problem-solving skills that can be measured using this tool.

Evaluation can be conducted using presentation in many cases of scope as well as problem-solving skills. Rubrics are prepared to assess students' presentations, and so they are applicable both individually and in the group because they are based on crucial outcomes that demonstrate student achievements. Furthermore, each criterion in the assessment points determined in the rubric is to use to evaluate the student's learning in line with the priorities of a teacher. Therefore, it requires to given an assessment form to students at the head of activity before making a presentation to be aware of their assessment criteria.

The presentation assignment has two perspectives, including for teachers to collect information about their students' learning for making related instructional decisions, and to improve student's communication skills. Therefore, teachers should provide the following practical points to students for designing and implementing presentation assignments:

- think through the questions or challenges
- arrange and state students' perceptions
- experience new vocabulary or notation learned in a class
- demonstrate and explain what students have learned
- use and experiment with forms of argumentation
- confirm students' own opinion

- critique affirmation
- Reflect on students' own understanding and the ideas of others (NCTM, 2000).

### Challenges in Applying Alternative Assessments Methods

Alternative assessment methods have several drawbacks in developing and implementing in the learning process. The methods are time-consuming to do, both to design and to work into classroom instructional time. Even teachers who are committed to the practice of performance assessment find that they don't have time to design good performance tasks, to try them out with students, and perfect them for later use. In addition, these assessments can take more time to score, since students are creating responses to them. This corroborated finding by some research found that labor-intensive and time-consuming are some of the main difficulties for alternative assessment efficient and effective implementation.

Among problems and challenges to teachers in the implementation of alternative assessment methods, is teachers' lack of familiarity with the methods, and they need expert support in the use of alternative assessment. Thus, most teachers did not have enough information about the application of Alternative assessment methods because of lack of education from the university, seminar or course, and inadequate expert support. This is consistent with findings of some research, which found that teachers did not have enough information due to the lack of education, and insufficient professional support. Therefore, many teachers have only limited experience designing such performance tasks and scoring rubrics as part of their professional preparation. And even when educators have learned such skills as part of their continuing professional growth, teachers' resistant to innovations, and they may lack the confidence to use such performance tasks as a central part of their assessment plan. Thus, it requires continuous training and development opportunities for educators, which could be costly.

The literature review indicates challenges to implementing the methods appear large. Crowded classrooms and curricular intensity are the greatest obstacles to implementation, calling for policy review and change at an institutional level. Teachers also do not have the financial resources to apply assessment complicated and many assessment methods. Furthermore, in terms of barriers, the literature demonstrates environmental challenges such as parent's negative perceptions, the pressure to teach to the test, such as Turkey, parents are understandably concerned about their children's performance on standardized tests, which can determine post-secondary choices. Moreover, student difficulties including the variety of students' behaviors, students having trouble understanding the instructions, students' negative attitudes towards those methods as barriers to implementing the alternative assessment methods.

### Overcoming Challenges in Using Alternative Assessment Methods

There are several ways in which the challenges might be overcome. First, teachers very much favor the use of alternative assessment methods, such as performance tasks, self, and peer assessment. They cite these methods' ability to facilitate personal development by increasing critical thinking, creativity, and also boost student's interest and motivation towards the course, improved self-confidence, and enhanced the feeling of success. Many teachers use these methods and attest to their efficacy. However, teachers admit to needing professional development to be able to appropriately implement these assessment methods.

Teachers report not being able to use these methods as often as they would like because of several factors: crowded classes, lack of time, the obligation to "teach to the test," cost and also parental resistance to new ideas, inadequate background knowledge for assessment stem from lack of education from the university, seminar or course, and inadequate expert support, variety of student behaviors, negative effects of parents, and too many methods. Thus, educators and politicians should adjust to apply the alternative assessment methods for differing classrooms or reduce the class size, enough training to teachers and the future teacher candidates how to use assessment in effective ways, provide enough materials for the teachers, proficient support through in-service courses, and attend seminars or classes that directly address the assessment methods practices. And thus, positive changes may occur in Turkey and similar countries in which have the challenges.

Second, as indicated above, alternative assessment methods are too many to implement effectively in classrooms, and for this reason, many difficulties appear. The learning process can be organized for each student, certain groups, or even for everyone according to the philosophy of possibility in this context. With this rationally, all learning activities, including learning, teaching, and evaluation related to the learning process may be changed as handled in a single and multidimensional way. Many senses can be propounded due to not existing single learning, teaching strategy, method, technique, and tactic in such a case. In the light of this philosophy, "Project-Based Performance Task" is to propose based on results of the comparison of the findings obtained from his dissertation research as a viable new alternative assessment method involving rubric, performance task, self-assessment, peer assessment, project assignment, observation, presentation and attitudes scale (Demir, 2015). Similar purposes are realizable using this assessment rubric instead of employing seven diverse alternative assessment methods. The rubric may possibly be fine as an alternative assessment method to reduce challenges raised by teachers such as teachers' workload, time-consuming, financial burden, evaluation difficulties due to class size, and the excess of assessment methods.



**PROJECT BASE PERFORMANCE TASK**

**Name** \_\_\_\_\_ **Number** \_\_\_\_\_ **Date** \_\_\_\_\_  
**Context of the Task:** \_\_\_\_\_

**Rubric**

***Instruction:** This rubric was prepared for evaluating project based base performance task. In this rubric, for each item below, please mark the box for "needs improvement" (1)" "meet expectations" (2) "Above expectations" (3).*

<b>Directions</b>	<b>3</b>	<b>2</b>	<b>1</b>
1. Collecting required data and information.			
2. Using appropriate procedures for the problem			
3. Analyzing the data appropriately			
4. Reaching appropriate results			
5. Using appropriate mathematical terminology, notations including labeling			
6. Solving similiar problems or responding to the relevant questions			
7. Speaking loudly and clearly			
8. Using the time effectively during the presentation.			
9. I can show all of the steps I use to solve the problem			
10. I usually give good effort on my work.			
11. I understand the topic well			
12. I enjoy doing this task.			
13. This topic attract my attention.			
14. The presentation is well organized and accurate			
15. Student is able to accurately explain the topic to classmates.			
16. He/She can answer the questions that are asked.			

Lastly, teachers may be geared to choose only an amount of alternative assessment methods for utilizing and to enlarge their exploit throughout the school year providing that a pool of alternative assessment methods are improved. This enables to both decrease the burden of evaluation administration and better located the evaluation as informatively on a subject. Marking costs could be conducted reasonably by taking into account these as opportunities for professional learning on the part of educators. By collaborating on points, teachers may sharpen their comprehensions of what high-quality learner performances seem and develop their skills to measure the extent of student

understandings of the key concepts evaluated.

### **Future Directions**

Traditional assessment methods provide few of the higher-order skills and little of the in-depth knowledge needed for attainment in a rapidly changing and increasingly complex knowledge age. This approach does not reveal deep aspects of students' learning and enables students to explain, apply, critique, and be self-monitored. Nevertheless, the majority of countries still use basic-skills tests for assessing students in their course, choosing them for admission into academic secondary schools/universities like Turkey, England. However, accomplished learning is not able to set goals by teaching a list of facts into schools to be modified inch by inch every year. Thus, schools must assess their students using effective methods, and teach disciplinary knowledge in ways boosting the students learn how to learn to gain 21<sup>st</sup>-century skills. In this manner, the students can transmit their knowledge in recent circumstances and lead the prospects of real-world such as renewed knowledge, technology, business, and distinct social platforms.

Alternative assessment is the most recent incarnation, provides an opportunity to manifest desired learning outcomes and become distant from a teacher measurement model towards learner fortification and the enhancement of life-long learning skills (Wilson 2013:193). The assessment focuses on monitoring the learner's growth alongside improvement over a period instead of comparing the learners each other, classes or groups with one another. It aims to provide opportunities for the learners to present their comprehension of the content, and so should stimulate the development of higher-level cognitive skills that are aligned with the course purpose and intention. The learners can use alternative assessment methods to develop attitudes and skills to be fit for critical thinkers and to proceed with their learning beyond the narrow scope and time limit of a formal educational experience (Garrison & Vaughan 2008:17).

Alternative assessment methods requiring the learners to craft their own responses instead of solely choosing multiple-choice answers have started to use to match international standards. The learners are required to discover, assess, analyze, concept acquisition, systematic decision making, use knowledge in new contexts, and solve non-routine problems as well as acquiring well-developed thinking, and communication skills. These are so-called 21<sup>st</sup>-century skills that have been encouraging educators to chase for the century skills that are progressively acquired a reputation in a complex, technologically connected, and fast-changing world. By establishing a connection with the skills, the assessment methods yield a more complete picture of students' strengths and weaknesses, needs, and so the instruction can be tailored accordingly. Hence, the methods pay particular attention more directly to the improvement of students.

Instructors are aware that the 21<sup>st</sup>-century students participate in a labor market in

which they are obliged to background information according to current circumstances, analyze, synthesize, and apply them to place in new challenges, arrange solutions, coordinate effectively, and transfer convincingly. Few former generations possibly have been inquired to be fit such ingenious intellectual. Instructors acknowledge the duty to cater to their students for this new and complex world requirements. They also consider that in the current context of high risk, what is tested increasingly defines what is being taught. Traditional assessment methods, including a standardized test in general, do not gauge providing knowledge and skills gained can be applied or transferred in real-life circumstances. Instead of traditional assessment methods, using alternative assessment methods both standard and online situation enable instructors to reach targeted 21<sup>st</sup> century purposes because the alternative methods are more viable in terms of producing desirable learning outcomes.

### Online Alternative Assessment

Digital tools with basically transformed the world outside of the academy cannot be ignored as long as distinct aspects of educators on the role that digital technology is situated in schooling. Those technologies are all the way bestowing new business models to firms and opportunities to enter a wide variety of markets and renew, transform the process of manufacture. The technologies can make our lives longer and healthier, bridge us over with boring duties, and enable us to travel into virtual worlds. Young students can thoroughly be prepared for 21<sup>st</sup> century social, economic, and cultural life only when they navigate through the digital panorama. For, students were able to discover only singular answers to their questions attentively from reviews and textbooks, and in general, they believed in the answers to be true in the past. Currently, they can reach multiple answers to their questions online from blogs, forums, websites, and social media and thus they do not need to wait for the right one from the already selective. For, advanced access to update digital tools offers unprecedented opportunities to them.

Artificial intelligence has shaped the whole globe; therefore schooling is not only teaching learners the content of their courses from now on but also direct them to build a reliable compass and discover navigation tools to go into their own way through an increasingly volatile, uncertain, and ambiguous world. New generation schools will require to encourage the students to think for themselves and participate with their peers with empathy and conduct their tasks in tandem. In addition, the schools will feel a need to assist the students to improve an influential perception of true and false, a comprehension of the boundaries on individual and activity by assembling, and a sensitivity to the claims that others make on them. They also will deeply require an understanding of the students' shortcomings, strengths in their learning at schools and thus integrate them into the community. For this reason, the more knowledge that technology enables students to search and access, the more significant become deep understanding and the capacity to

comprehend the content, including knowledge, concepts, ideas, and intuition as well as practical skills. However, Instructors should essentially comprise applying all of these in ways that are appropriate and integrating them into the learner's context.

Technology provides a wide range of facilities for alternative assessment methods to construct prosper and capacity of the learning experiences for primary school students alongside broadening the impact of education on societies through skills, values, and transferal of knowledge. Hence, the knowledge-based society, which is set up technology requests from teachers to make their students independent and confident learners, and motivated the students for life-long learning, teach them to learn to learn, self-directed them that might able to transfer their knowledge, skills, and merits. Influential schooling must be equivalently provided to train the primary students with these characteristics in which stimulating teachers to focus education on assessment-centered and use technology effectively from that direction. Technology-oriented alternative assessment methods are able to pay the way for both teachers and young learners to have more influence in this setting as well as gaining significant advantages to primary school students and their teachers, and policymakers in terms of progressions in teaching, learning, and high-quality knowledge level. Thus, alternative assessment methods are fairly fit to use online or through social media.

The idea of online assessment has recently been proposed, in which students assess their peers and provides feedback, and opportunities for assessment, and autonomy through online collaboration. Through combining internet and alternative assessment, learners can more interact with each other, comment on their peers' work, engage in more, and share perceptions about various issues. What is more, the online assessment provides better opportunities for learning and evaluation than traditional methods, and it can be more efficient than in a traditional classroom setting for a new generation and reduce the cost associated with brick and mortar education. The online assessment also allows instructors to monitor the progress of students and the activities more closely. Advantages include making the teachers' job more manageable in crowded classrooms, time and cost-effectiveness, and the creation of an environment where students can provide feedback to their peers and activities much better without being limited by time and place. Additionally, this assessment process provides students with the opportunity to freely interact, submit, store, review, and revise the assignments whenever and wherever they are, as well as allowing students to monitor, track, and discuss revisions of their duties.

### **Alternative Assessment through Social Media**

Social learning theory is based on the idea that much cognitive learning occurs through social interaction (Fahim and Mehrgan 2012; Vygotsky 1978). According to social

learning theory, learning occurs through interpersonal interaction, acts or performance, and environment. Thus, social interaction is one of the most powerful tools for learning and skills development, leading to new ways of co-constructing ideas. Social networking serves the three broad functions of socializing, sharing, and participating in an e-learning context. Social networking tools that have the potential to fulfill all of these functions emerged.

The fact that social media specifically is so frequently used, especially by younger people, suggests the value of its inclusion as a significant component in the educational curriculum, and given students' familiarity with this tool, the sooner the better. In order to extend the communicative activities of the traditional physical classroom to a virtual form, Facebook can also be served as a tool for instructors to connect, befriend, and communicate with students. In addition, university students are able to use Facebook to facilitate their academic goals, and it is a tool and platform that "enhance communication and interaction can potentially be used for learning" (Godwin-Jones 2008, p. 7)

The rapid increase in the utilization of online learning environments and social network sites, such as Facebook, Instagram, Tik-Tok, Twitter, and LinkedIn, offers additional potential for the pedagogical use of some of the alternative assessment methods such as self-assessment, peer assessment through feedback. These websites have impacted education and changed the landscape of the learning process by enhancing pedagogical interaction. It was also asserted that using websites enables students to communicate and do various course assignments. Currently, students demand greater autonomy in their own learning to create new insights and share their ideas with peers, teachers. Some of the social media tools, including Facebook, Instagram, etc. are one the appropriate and widely used social network site for these functions to provide many pedagogical benefits. Therefore, in this study, social media is recommended to use as a learning tool to provide feedback, interaction, social communication and actively assess one another. Students are ready for the prospect of using social media to support classroom assignments to ask and answer questions, post their comments, support their peers in educational activities, and discuss their tasks. These interactions may have an influence on fostering student-student and teacher-student interaction for feedback, in particular assessment-centered learning, and may be useful to both students and teachers since peers are available online.

Development of internet technologies and widespread use of social networking sites has led to increased use of online assessment in classroom settings, "having positively affected student assessment processes" (Lu and Zhang 2012, p. 317). On the one hand, social sites "facilitate collaboration and offer the potential to move away from the assessment of individual skills to implement a social constructive view of learning" (Whitelock 2011, p. 320). On the other hand, the online assessment has a number of advantages, such as assignment submission, storage, communication, and review, over

face-to-face assessment High Educ. It also enables learners to interact and communicate with peers and teachers to revise their work based on feedback when and where they like, and can increase the willingness of students to engage in the assessment.

Social networking sites allow for knowledge-building and support educational activities in terms of information and resource-sharing. Using social media platforms also enables students to work on various course assignments together and assess each other. Thus, it is necessary to consider the affordability and potential value of these sites for learners in education. Using the sites in educational and instructional contexts can be a powerful tool as most students spend a great deal of time connected to social networking sites, but further study is needed to reveal the specific mechanisms by which social networking sites influence learning and assessment (Pempek et al. 2009).

### **Conclusion**

The literature review indicates that there are several recent studies have focused on using some alternative assessment through online and social media in the education context (Demir, 2018; Deng and Tavares 2013; Shaltry et al. 2013; Li and Law 2012). For instance, the research indicated their study on the effects of online peer assessment, in form of peer grading and peer feedback, on the students' learning. The results show that the provision by student assessors of feedback that identified problems and gave suggestions was a significant predictor of the performance of the assessors themselves and that positive affective feedback was related to the performance of assesses.

Integrating online assessment and Facebook might create a more effective learning process, enable students with an environment to express freely their ideas about their friends' work, and provide learners with opportunities to evaluate their peers effectively. I highly recommend using some of the usable social media tools like Facebook and Instagram because they are considered as the well-known social network among youth students in primary school and High Education. For instance, in my university classes, it is not uncommon for student teachers to covertly check their Facebook accounts right in the middle of a lesson, and my experience is not unusual

Education has won the race with technology throughout history, but there is no guarantee that it will do so in the future (PISA, 2018). On the contrary, from my point of view, technology is one step ahead at present, and if digital tools are not rapidly integrated into schooling, the winner of the race will always be technology, and so education will always be in the background. I assumed that using online alternative assessment methods or compound social media as a learning tool with online alternative assessment methods could facilitate and constitute the interactions among students that occur inside and outside of the classroom that can prove to have pedagogical values. Accordingly, teachers have been encouraged to prepare their students for 21st-century skills that are

progressively acquired a reputation in a complex, technologically connected, and fast-changing world. It also makes education leader again and leads the way of the life.

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### References

- Aijan, H., & Hartshorne, R. (2008). Investigating faculty decisions to adopt web 2.0 technologies: Theory and empirical tests. *The Internet and Higher Education, 11*, 71-80.
- Anderson, T. (2009). Social networking. In S. Mishra (Ed.), *Stride handbook 8—e-learning* (pp. 96–101). Indira Gandhi National.
- Andrade, L. H., Du, Y., & Mycek, K. (2010). Rubric-referenced self-assessment and middle school student's writing. *Assessment in Education: Principles, Policy & Practice, 17*(2), 199-214.
- Andrade, G. H. (2005). Teaching with rubrics: The good, the bad and the ugly. *College Teaching, 53*(1), 13-18.
- Andrade, G. H. (2000). What Do We Mean by Results? Using Rubrics to Promote Thinking and Learning. *Educational Leadership, 57*(5), 1-7.
- Arter, J. A., & Mctighe, J. (2001). *Scoring rubric in the classroom: using performance criteria for assessing and improving student performance*. Corwing Press A Sage Publications Company.
- Atta-Alla, N. M. (2013). A suggested framework for using alternative assessments in English as a second or foreign language settings. *International Journal of English Language Education, 1*(1), 1-16.
- Bachman, F. L. (2002). Alternative interpretations of alternative Assessments: some validity issues in educational performance assessments. *Educational Measurement: Issues and Practice, 21*(3), 5-18.
- Balliro, L. (1993). What kind of alternative? Examining alternative assessment. *Teachers of English to Speakers of Other Languages (TESOL) Quartely, 27*(3), 558-561.
- Ballantyne, R., Hughes, K., & Mylonas, A. (2002). Developing procedures for implementing peer assessment in large classes using an action research process. *Assessment & Evaluation in Higher Education, 27*(5), 427-441.

- Baxter, G. P., Elder, A. D., & Glaser, R. (1996). Knowledge-based cognition and performance assessment in the science classroom. *Educational Psychologist*, 31(2), 133-140.
- Biggs, J. (2003). Aligning teaching and assessing to course objectives. *Teaching and Learning in Higher Education: New trends and Innovations*. <https://www.queensu.ca/teachingandlearning/modules/principles/documents/Aligni%20Teaching%20and%20Learning%20to%20Course%20Objectives.pdf>
- Billington, H. L. (1997). Poster presentations and peer assessment: novel forms of evaluation and assessment. *Journal of Biological Education*, 31(3), 218–220.
- Bingham, G., Holbrook, T., & Meyers, E. L. (2010). Using self-assessments in elementary classrooms. *The Phi Delta Kappan*, 91(5), 59-61.
- Brindley, C. & Scoffield, S. (1998) Peer assessment in undergraduate programs. *Teaching in Higher Education*, 3 (1), 79–89.
- Black, P., & Wiliam. D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy and Practice*, 5(1), 7-74.
- Blumenfeld, P. C., Marx, R.W., Soloway, E. & Krajcik, J. (1996). Learning with Peers: From Small Group Cooperation to Collaborative Communities. *Educational Researcher*, 25(8), 37-40.
- Boettger, K. R. (2010). Rubric use in technical communication: exploring the process of creating valid and reliable assessment tools. *IEEE Transaction on Professional Communication*, 53(1), 4-17.
- Boud, D. (2005). *Enhancing learning through self-assessment*. Routledge Farmer.
- Brindley, C., & Scoffield, S. (1998). Peer assessment in undergraduate programs. *Teaching in Higher Education*, 3(1), 79-89.
- Brookhart, S. M. (1999). *The art and science of classroom assessment: the missing part of pedagogy*. ASHE ERIC Higher Education Report, 27(1).
- Buhagiar, M. A. (2007). Classroom assessment within the alternative assessment paradigm: revisiting the territory. *The Curriculum Journal*, 18(1), 39-56.
- Burks, R. (2010). The student mathematics portfolio: value added to student preparation? *Primus: Problems, Resources and Issues in Mathematics Undergraduate Studies*, 20(5), 453-472.
- Butler, S. M., McColskey, W., & O’Sullivan, R. (2005). *How to assess student*



*performance in science: going beyond multiple-choice tests.* (Third Edition) 2005 Associated with the School of Education, University of North Carolina at Greensboro.

- Butler, D. L. & Winne, P.H. (1995) Feedback and self-regulated learning: A theoretical synthesis. *Review of Educational Research*, 65(3), 245-281.
- Carpenter, C. D., & Ray, M. S. (1995). Portfolio assessment: Opportunities and challenges. *Intervention in School & Clinic*, 31(1), 34-41.
- Century, D. N. (2002). *Alternative and traditional assessments: their comparative impact on students' attitudes and science learning outcomes: On exploratory study*, Unpublished Dissertation, Temple University, United States.
- Cestone, C. M., Levine, R. E., Derek, R. L. (2008). Peer assessment and Evaluation in team based learning. *New Directions for Teaching and Learning*. 116, 69-78.
- Chang, C. C. (2001). A study on the evaluation and effectiveness analysis of web-based learning portfolio (WBLP). *British Journal of Educational Technology*, 32(4), 435-458.
- Chun, M. (2010). Taking teaching to performance task: Linking pedagogical and assessment practices. *Change: The Magazine of Higher Education*. 22-29.
- Cole, D. A. (1991). Change in self-perceived competence as a function of peer and teacher evaluation. *Development Psychology*. 27, 682-688.
- Covill, E. A. (2012). College students' use of a writing rubric: effect on quality of writing, self efficacy, and writing practices. *Journal of Writing Assessment*, 5(1), 16-33.
- Cuban, L. (1993). *How teachers taught: Constancy and change in American classrooms 1890– 1990*. Teachers College Press.
- Culbertson, D. L. (2000). *Alternative assessment: Primary grade literacy teachers' knowledge, attitudes and practices* (Unpublished doctoral dissertation). University of Pennsylvania, Pennsylvania.
- Daghan, G., Akkoyunlu, B. (2014). A qualitative study about performance based assessment methods used in information technologies lesson. *Educational Sciences: Theory and Practice*, 14(1), 333-338.
- D'angelo, B. J. (2008). *More than mere collections: Portfolios a direct and authentic assessment of information literacy outcomes*. Paper presented

- World Library And Information Congress: 74th Ifla General Conference And Council, Québec, Canada.
- Damon N. B. (2017). *The introduction of online mathematics assessment as an alternate assessment to facilitate mathematics learning of Senior Phase Deaf and Hard of Hearing Learners*. Dissertation, Stellenbosch University.
- Dandis, M. A. (2013). The assessment methods that are used in a secondary mathematics class. *Journal for Educators, Teachers and Trainers*, 4(2), 13-143.
- Danielson, C. (1997). *A collection of performance tasks and rubrics: Upper elementary school mathematics*. Eye on Education, Inc. Canada.
- Davies, P. (2000). Computerized peer assessment. *Innovations in Education and Training International*, 37(4), 346–355.
- Demir, M., Tananis, C., & Trahan, K. W. (2019). Evaluation of alternative assessment methods used in elementary schools. *Education and Science*, 44(197), 223-238.
- Demir, M. (2015). *Comparative investigation of alternative assessment methods used in Turkey and United States elementary 4th grade mathematics curriculum* (Unpublished doctoral dissertation). İnönü University, Malatya.
- Demir, M. (2010). *İlköğretimde kullanılan performans ödevlerinin etkililiği*. Yayınlanmamış Yüksek Lisans Tezi, İnönü Üniversitesi Sosyal Bilimler Enstitüsü, Malatya, Turkey.
- Deng, L., & Tavares, N. J. (2013). From Moodle to Facebook: exploring students' motivation and experiences in online communities. *Computer & Education*, 68, 167–176.
- Derrick, M. (2020). *The purpose of building a portfolio assessment*. <https://www.thoughtco.com/the-purpose-of-building-a-portfolio-assessment-3194653>
- DiMartino, J., Castaneda, A., Brownstein, M., & Miles, S. (2007). Authentic assessment. *Principal's Research Review*, 2(4), 1-8.
- Dlaska, A., & Krekeler, C. (2008). Self-assessment of pronunciation. *System*, 36(4), 506-516.
- Dochy, F. (2001). A new assessment era: different needs, new challenges. *Learning and Instruction*, 10(1), 11-20.
- Dochy, F., Segers, M., & Sluijsmans, D. (1999). The use of self-, peer and co-assessment in Higher Education: A review. *Studies in Higher Education*, 24(3), 331-350.

- Durmus, S., & Karakirik, E. (2005). A computer assessment tool for structural communication grid. *Turkish Online Journal of Educational Technology-TOJET*, 4(4), 3-6.
- Egan, K. (1972). Structural communication-a new contribution to pedagogy. *Programmed Learning and Educational Technology*, 1, 63-78.
- Elharrar, Y. (2006). *Teacher assessment practices and perceptions: the use of alternative assessments within the quebec educational reform* (Unpublished doctoral dissertation). Universite Du Quebec A Montreal, Montreal.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “Friends” social capital and college students’ use of online social network sites. *Journal of Computer Mediated Communication*, 12(4), 1143–1168
- Fahim, M., & Mehrgan, K. (2012). Second language acquisition: A socio-cognitive perspective. *Advances in Digital Multimedia (ADMM)*, 1(3), 159–165
- Falchikov, N. (1995). Peer feedback marking: developing peer assessment. *Innovations in Education and Training International*, 32, 175-187.
- Falchikov, N. (2001). *Learning together: Peer tutoring in higher education*. Routledge Falmer.
- Fan, L., & Yeo M. S. (2006). American Educational Research Association (AERA) Annual Meeting, San Francisco, California, USA.
- Fernsten, L., & Fernsten, J. (2005). Portfolio assessment and reflection: enhancing learning through effective practice. *Reflective Practice: International and Multidisciplinary Perspectives*, 6 (2), 303-309.
- Fourie, M. H. (2016). The student’s portfolio as a alternative assessment tool. [https://www.academia.edu/6801980/The\\_Students\\_Portfolio\\_as\\_An\\_Alternative\\_Assesment\\_tool](https://www.academia.edu/6801980/The_Students_Portfolio_as_An_Alternative_Assesment_tool).
- Fourie, I., & Van Niekerk, D. (2001). Follow-up on the portfolio assessment a module in research information skills: An analysis of its value. *Education for Information*, 19(2), 107-126.
- Fulford, C., & Zhang, S. (1993). Perceptions of interaction: The critical predictor in distance education. *The American Journal of Distance Education*, 7(3), 8–21.
- Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education. Framework, principles and guidelines*. Jossey-Bass.

- Gibbs, G., Lucas, L., & Spouse, J. (1997). The effects of class size and form of assessment on nursing students' performance, approaches to study and course perceptions. *Nurse Education Today*, 17(4), 311–318.
- Gielen, S., Peeters, E., Dochy, F., Onghena, P., & Struyven, K. (2010). Improving the effectiveness of peer feedback for learning. *Learning and Instruction*, 20, 304–315.
- Gill D, Lucas, D. (2013). Using alternative assessment in business and foreign language classes. *Journal of International Education Research*, 9(4), 359-370.
- Gillespie, S. C., Ford, K. L., Gillespie, D. R., & Leavell, G. A. (1996). Portfolio assessment: Some questions, some answers, some recommendations. *Journal of Adolescent & Adult Literacy*, 36(6), 480-491.
- Godwin-Jones, R. (2008). Emerging technologies mobile-computing trends: Lighter, faster, smarter. *Language Learning & Technology*, 12(3), 3–9.
- Gomez, M. L., Grau M. E., Block, M. N. (1991). Reassessing portfolio assessment: *Rhetoric and reality Language Arts* 68, 620–28.
- Gueldenzoph, L. E., & May, G. L. (2002). Collaborative peer evaluation: Best practices for group member assessments. *Business Communication Quarterly*, 65(1), 9-20.
- Haberyan, A. (2007). Team-based learning in an industrial/organizational psychology course. *North American Journal of Psychology*, 9(1), 143-152.
- Hanifa, R. (2017). Teachers' views on the use of portfolio assessment in secondary schools in Indonesia. [http://25qt511nswfi49iayd31ch80wpengine.netdnassl.com/wpcontent/uploads/papers/acll2017/ACLL2017\\_35019.pdf](http://25qt511nswfi49iayd31ch80wpengine.netdnassl.com/wpcontent/uploads/papers/acll2017/ACLL2017_35019.pdf).
- Haverback, H. (2009). Facebook: Uncharted territory in a reading education classroom. *Reading Today*, 27, 34.
- Andrade, H., & Valtcheva, A. (2009). Promoting learning and achievement through self-assessment. *Theory into Practice*, 48(1), 12-19.
- Hemje, K. (2014). *Student perspectives of classroom assessment*. Dissertation, University of Northern Colorado.
- Herman, L. J., Gearhart, M., & Ascbacher, R. P. (2009). Writing portfolios in the classroom: Policy and practice, promise and peril. In R. C. Colfee & P. Perfumo (Ed.), *Portfolios for classroom assessment: design and implementation issues (First ed.)*, 27-56. Lawrence Erlbaum Associates.

- Herman, J. L., Aschbacher, P. R., & Winters, L. (1992). *A practical guide to alternative assessment*. Association for Supervision and Curriculum Development.
- Herman, J. L., Klein, D. C., & Wakai, S. T. (1997). American students' perspectives on alternative assessment: Do they know it's different?. *Assessment in Education*, 4(3), 339-351.
- Howe, K. R. (1988). Against the quantitative qualitative incompatibility thesis or dogmas die hard. *Educational Researcher*, 17(8), 10-16.
- Huh, K. C., Baek, S. G., Park, K. M., Choi, M. S., Yang, K. S., & Kim, K. J. (1999). *Analyzing implementation and improvement of performance assessment policy*. Seoul, Korea: Korea Institute for Curriculum and Evaluation.
- Huerta-Macias, A. (1995). Alternative assessment: Responses to commonly asked questions. *TESOL Journal*, 5(1), 8-10.
- Janisch C, Liu X., & Akrofi A. (2007). Implementing alternative assessment: Opportunities and obstacles. *The Educational Forum*, 71, 221-230.
- Jonsson, A., & Svingby, G. (2007). The use of scoring rubrics: reliability, validity and educational consequences. *Educational Research Review*, 2(2), 130-44.
- Johnson, W. D., & Johnson, T. R. (2002). *Meaningful assessment: a manageable and cooperative process*. Boston: Ally and Bacon.
- Johnstone, A. H. & Mughol, A. R. N. (1979). Testing for understanding. *School Science Review*, 61, 147-150.
- Johnstone, A. H. (1981). *Diagnostic testing in science*. In *evaluation roles in education*, Gordon and Breach.
- Johnstone, A. H., MacGuire, P. R. P., Friel, S., & Morrison, E. W. (1983). Criterion referenced testing in science – thoughts, worries and suggestions. *School Science Review*, 64, 626-634.
- Johnstone, H. A., Bahar, M., & Hansell, H. M. (2000). Structural communication grids: a valuable assessment and diagnostic tool for science teachers. *Journal of Biological Education*, 34(2), 87-89.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- Kahl, S., & Hofman, P. (2013). *Curriculum embedded performance assessment for deeper learning and accountability*. NH. Measured Progress.

- Kalra R, Sundrarajun C, Komintarachat H (2017). Using portfolio as an alternative assessment tool to enhance Thai EFL students' writing skill. *Arab World English. Journal*, 8(4), 292-302.
- Karahan, U. (2007). *Alternatif ölçme ve değerlendirme metodlarından grid, tanılayıcı dallanmış ağaç ve kavram haritaları'nın biyoloji öğretiminde uygulanması*. Yayınlanmamış Yüksek Lisans Tezi, Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara, Turkey.
- Keiny, S. (1995). *STES Curriculum Development as a Process of Conceptual Change*. A Paper Presented at NARST Annual Meeting, San Francisco CA.
- Ken, O., & Mctighe, J. (2005). Seven practices for effective learning an assessment to promote learning. *Educational Leadership*, 63(3), 10-17.
- Kocaarslan, M. (2012). Tanılayıcı dallanmış ağaç tekniği ve ilköğretim 5. sınıf fen ve teknoloji dersi maddenin değişimi ve tanınması adlı ünite de kullanımı. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 9(18), 269-279.
- Koency, G. (1995). *Curriculum-embedded assessments*. Center for Research on Evaluation, Standards and Student Testing, University of California, Los Angeles, CA.
- Köklükaya, N. A. (2010). *Alternatif ölçme ve değerlendirme teknikleri ile ilgili fen bilgisi öğretmen adaylarının yeterliklerinin belirlenmesi*. Yayınlanmamış Yüksek Lisans Tezi, Sakarya Üniversitesi Fen Bilimleri Enstitüsü, Sakarya, Turkey.
- Kollar, I., & Fischer, F. (2010). Peer assessment as collaborative learning: a cognitive perspective. *Learning and Instruction*. 20(4), 240-348.
- Lam, L. (2012). An innovative research on the usage of Facebook in the higher education context of Hong Kong. *The Electronic Journal of e-Learning*, 10(4), 377-386.
- Lee, H. (2008). *Students' perceptions of peer and self-assessment in higher education online collaborative learning environment*, Unpublished Dissertation, The University of Texas at Austin, Texas, USA.
- Koné, K. (2015). The impact of performance-based assessment on university ESL learners' motivation. All Theses, Dissertations, and Other Capstone Projects, 402.
- Kreisman, S., Knoll, M., & Melchior, T. (1995). Toward more authentic assessment. In A. Costa, & B. Kallick (Eds.), *Assessment in the learning organization* (pp.114-138). Alexandria, VA: Association for Supervision and Curriculum Development.

- Law, B., & Ecke, M. (1995). *Assessment and ESL*. Manitoba, Peguis Publisher.
- Lee, A. S., Park, S. H., & Choi, J. (2012). The relationship between communication climate and elementary teachers' beliefs about alternative assessment. *Journal of Pacific Rim Psychology*, 5(1), 11-18.
- Lenhart, A., & Madden, M. (2007). Social networking websites and teens: An overview. Pew internet and American life project. [http://www.pewinternet.org/PPF/r/198/report\\_display.asp](http://www.pewinternet.org/PPF/r/198/report_display.asp).
- Letina A. (2015). Application of traditional and alternative assessment in science and social studies teaching. *Croatian Journal of Education*, 17(1), 137-152.
- Li, J., & Law, N. (2012). Online peer assessment: effects of cognitive and effective feedback. *Instructional Science*, 40(2), 257–275.
- Liu, E., & Lee, C. (2013). Using peer feedback to improve learning via online peer assessment. *TOJET: The Turkish Online Journal of Educational Technology*, 12(1), 187–199.
- Lin, G. Y. (2016). The effects that Facebook-based online peer assessment with micro-teaching videos can have on attitudes toward peer assessment and perceived learning from peer assessment. *Eurasia Journal of Mathematics, Science & Technology Education*, 12(9), 2295–2307.
- Ling, M. K. (2016). The use of academic portfolio in the learning and assessment of physics students from a Singapore Private College. *International Journal of Assessment Tools in Education*, 3(2), 151-160.
- Lo, F. Y. (2010). Implementing reflective portfolios for promoting autonomous learning among EFL college students in Taiwan. *Language Teaching Research*, 14(1), 77-95.
- Loureiro, M. J., Pombo, L., & Moreira, A. (2012). The quality of peer assessment in a wiki based online context: a qualitative study. *Educational Media International*, 49(2), 139–149.
- Lu, J., & Zhang, Z. (2012). Understanding the effectiveness of online peer assessment: a path model. *Journal of Educational Computing Research*, 46, 313–333
- Madeja, S. S. (2014). Alternative assessment strategies for schools. *Arts Education Policy*, 105(5), 3-13.
- Mason, R. (2006). Learning technologies for adult continuing education. *Studies in Continuing Education*, 28(2), 121–133.

- McCarthy, J. (2010). Blended learning environments: using social networking sites to enhance the first year experience. *Australasian Journal of Educational Technology*, 26(6), 729–740.
- MacGuire, P. R. P., & Johnstone, A. H. (1987). Technique for investigating the understanding of concept in science. *International Journal of Science Education*, 9, 565-577.
- McDonald, J. & Czerniac, C. (1994). Developing Interdisciplinary Units: Strategies and Examples. *School Science and Mathematics*, 94(1), 5-10.
- Mcdonald, B. (2012). Portfolio assessment: direct from the classroom. *Assessment & Evaluation in Higher Education*, 37(3), 335-347.
- Mclaughlin, J. E. (2011). Student self-assessment for undergraduate, graduate and international finance courses. *Chinese Business Review*, 10(8), 640-647.
- McLoughlin, C., & Lee, M. J. (2007, December). Social software and participatory learning: Pedagogical choices with technology affordances in the Web 2.0 era. In ICT: Providing choices for learners and learning. Proceedings ascilite Singapore 2007 (pp. 664–675).
- McMillan, H. J., & Hearn, J. (2009). Student self-assessment: The key to stronger student motivation and higher achievement. *The Education Digest*, 74(8), 39-44.
- McMillan, J. H. (2004). *Classroom assessment: principles and practice for effective instruction* (Third Edition). Pearson/A and B.
- MEB. (2009). *İlköğretim matematik dersi (1-5. sınıflar) öğretim programı*. Ankara.
- Michaelsen, L. K., Knight, A. B., and Fink, D. L. (2004). *Team-Based Learning: A transformative use of small groups*. Westport, Conn.: Prager.
- Oldfield, K. A., Mark, J., & Macalpine, K. (1995). Peer and self-assessment at tertiary level—an experiential report. *Assessment and Evaluation in Higher Education*, 20(1), 125–132.
- Moran, M., Seaman, J., & Tinti-Kane, H. (2012). *Blogs, wikis, podcasts and Facebook: How today's higher education faculty use social media, 2012*. (Babson Survey Research Group). MA: Pearson Learning Solutions.
- Moriarty, H. J. (1995). *Are alternative assessments in mathematics a contradiction or an enhancement of traditional grading policies?*, Unpublished Master Thesis, Caldwell College Of New Jersey, New Jersey, United States.



- Moskal, B. M. (2000). Scoring rubrics: What, when and how? <http://pareonline.net/getvn.asp?V=7&n=3>
- Nichols, P. D. (1994). A framework for developing cognitively diagnostic assessments. *Review of Educational Research*, 64(4), 575–603.
- National Council of Teachers of Mathematics (2000). Principles and standards for school mathematics. Reston, VA: Author.
- Oliver, E. (2015). Alternative assessment to enhance theological education. *HTS Theologese Studies/Theological Studies*, 71(3):1-10.
- Oldfield, K. A., Mark, J., & Macalpine, K. (1995). Peer and self-assessment at tertiary level an experiential report. *Assessment and Evaluation in Higher Education*, 20(1), 125–132.
- Orsmond, P., Merry, S., & Callaghan, A. (2004). Implementation of a formative assessment model incorporating peer and self-assessment. *Innovations in Education and Teaching International* 4(3), 273–90.
- Oosterhof, A. (1994). *Classroom applications of educational measurement*. Second Edition. Merrill.
- Panadero, E., & Jonsson, A. (2013). The use of scoring rubrics for formative assessment purposes revisited: A review. *Educational Research Review*, 9, 129-144.
- Pempek, T. A., Yermolayeva, Y. A., & Calvert, S. L. (2009). College students' social networking experiences on Facebook. *Journal of Applied Developmental Psychology*, 30, 227–238.
- Pond, K., Ul-haq, R., & Wade, W. (1995). Peer review: a precursor to peer assessment. *Innovations in Education and Training International*, 32(4), 314-323.
- Race, P. (1998) Practical pointers on peer assessment, in: S. Brown (Ed.) Peer assessment in practice. SEDA publications.
- Postholm, M. B. (2005). Assessment during Project work. *Teaching and Teacher Education*, 22, 150-163.
- Pratt, A. J. (2005). *Authentic assessment and evaluation approaches at the North island distance education school*. Unpublished Master Thesis, Royal Road University, Royal Road, Canada.
- Quilan, A. M. (2006). *A complete guide to rubrics: assessment made easy for teacher. K12*. Lanham MD: Rowman and Littlefield Education.

- Race, P. (1998). Practical pointers on peer-assessment. In S. Brown (Ed.), *Peer assessment in practice* (P. 102). SEDA publications.
- Reeves, S., & Stanford, P. (2009). Rubrics for the classroom: assessments for students and teachers. *The Delta Kappa Gamma Bulletin*, 76(1), 24-27.
- Resta, P., & Lee, H. (2010). Virtual teamwork: mastering the art and practice of online learning and corporate collaboration. In R. Ubell (Eds.), *peer and self-assessment* (pp.45-60). USA.
- Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on Facebook in higher education: a comparison of college faculty and student uses and perceptions of social networking sites. *Internet and Higher Education*, 13, 134–140.
- Salma, N., Prastikawati, E. F. (2021). Performance-based assessment in the English learning process: washback and barriers. *Getsempena English Education Journal*, 8(1), 164–176.
- Salomon, G., & Clark, R. E. (1977). Reexamining the methodology of research on media and technology in education. *Review of Educational Research*, 47(1), 99-120.
- Schunk, D. (2003). Self-efficacy for reading and writing: Influence of modeling, goal-setting, and self-evaluation. *Reading & Writing Quarterly*, 19, 159–172.
- Scruggs, T. E., & Mastropieri, M. A. (Eds.). (1994a). The effectiveness of generalization training: A quantitative synthesis of single subject research. In *Advances in learning and behavioral disabilities* (Vol. 8, pp. 259-280). Greenwich, CT: JAI.
- Schwartz, D.L, & Arena, D. (2009). Choice-based assessment for the digital age. Stanford University. <http://aaalab.stanford.edu/papers/ChoiceSchwartzArenaAUGUST232009.pdf>
- Scottish Exam Board (1997). *Higher grade biology examination papers*. Gibson.
- Searby, M., Ewers, T. (1997). An evaluation of the use of peer assessment in higher education: a case study in the school of Music, Kingston University *Assessment & Evaluation in Higher Education*, 22 (4), 371-383.
- Sechrest, L., & Sidani, S. (1995). Quantitative and qualitative methods: Is there an alternative?. *Evaluation and Program Planning*, 18, 77-87.

- Sekerci, A. R. (2015). Development of diagnostic branched tree test for high school chemistry concepts. *Oxidation Communications*, 38 (2), 1060–1067.
- Selwyn, N. (2007). *Screw blackboard. Do it on Facebook! An investigation of students' educational use of Facebook.* <http://www.scribd.com/doc/513958/FacebookseminarpaperSelwyn>.
- Shahzad, A., Naveed, S., & Sadia, J. (2019). Investigating the effect of structural communication grids as conceptual change strategies on student's academic achievement in Biology at secondary level. *Pakistan Journal of Education*, 36(2), 91–113.
- Shaltry, C., Henriksen, D., Wu, M. L., & Dickson, W. P. (2013). Situated learning with online portfolios, classroom websites and Facebook. *Tech Trends*, 57(3), 20–25.
- Shih, R. C. (2011). Can Web 2.0 technology assist college students in learning English writing? Integrating Facebook and peer assessment with blended learning. *Australasian Journal of Educational Technology*, 27(5), 829–845.
- Simpson, M. L., Stahl, N. A., & Anderson, F. M. (2004). Reading and learning strategies: recommendations for the 21<sup>st</sup> century. *Journal of Developmental Education*, 28(2), 2–15.
- Sluijsmans, D., Brand-Gruwel, S., & van Merriënboer, J. J. G. (2002). Peer assessment training in teacher education: effects on performance and perceptions. *Assessment and Evaluation in Higher Education*, 27(5), 443-454.
- Smith, H., Cooper, A., & Lancaster, L. (2002). Improving the quality of undergraduate peer assessment: a case study from psychology. *Innovations in Education and Teaching International*, 39(1), 71-81.
- Solas, J. (1992). Investigating teacher and student thinking about the process of teaching and learning using autobiography and repertory grid. *Review of Educational Research*, 62(2), 205-225.
- Spinath, B., Spinath, F., Harlaar, N., & Plomin, R. (2006). Predicting school achievement from general cognitive ability, self-perceived ability, and intrinsic value. *Intelligence*, 34(4), 363-374.
- Steeple, C., & Mayers, T. (1998). A special section on computer-supported collaborative learning. *Computers and Education*, 30(3–4), 219–221.
- Stiggins, R. J. (1994). *Student-centered classroom assessment*. NY: Macmillan.

- Sumardi, S. (2017). Performance-based assessment as a current trend in elt: Investigating its washback effects on secondary-school students learning. *Kajian Linguistik Dan Sastra*, 2(1), 1-11.
- Svinicki, M. D. (2004). Authentic assessment: Testing in reality. *New Directions for Teaching and Learning*, 100, 23-29.
- Taras, M. (2010). Student self-assessment: processes and consequences. *Teaching in Higher Education*, 15(2), 199-209.
- Topping, K. J., & (1998). *Peer-assisted learning*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Topping, K. J., & Ehly, S. (1998). *Peer-assisted learning*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Topping, K. J., Smith, E. F., Swanson, I., & Elliot, A. (2000). Formative peer assessment of academic writing between postgraduate students. *Assessment & Evaluation in Higher Education*, 25(2), 149-170.
- Topping, K. J. (2009). Peer assessment. *Theory Into Practice*, 48(1), 20-27.
- Truong, M. (2013). Mobile app learning lounge. In J. E. Groccia & L. Crus (Eds.), *From: To improve the academy* (pp. 301–315). John Wiley & Sons.
- Tsai, C. C., Lin, S. S., & Yuan, M. (2002). Developing science activities through a network peer assessment system. *Computer & Education*, 38, 241-252.
- Tsai, C. C., & Wen, M. L. (2005). Research and trends in science education from 1998 to 2002: A content analysis of publication in selected journals. *International Journal of Science*, 27(1), 3-14.
- Tsai, C.-C. (2009). Internet-based peer assessment in high school settings. In L. T. W. Hin & R. Subramaniam (Eds.), *Handbook of research on new media literacy at the K-12 level: issues and challenges* (pp. 743-754). Hershey: Information Science Reference.
- Tseng, S. C., & Tsai, C. C. (2007). Online peer assessment and the role of the peer feedback: A study of high school computer course. *Computers and Education*, 49, 1161–1174.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. MA: Harvard University Press
- Wandersee, J. H., Mintzes, J. J., & Novak, J. D. (1994). *Research on alternative*

- conceptions in science. In D. L. Gabel (Eds.), *Handbook of research on science teaching and learning* (pp. 177-210). Simon & Schuster and Prentice Hall International.
- Wang, J. (2013). What higher educational professionals need to know about today's students: Online social networks. *The Turkish Online Journal of Educational Technology*, 12(3), 180–193.
- Weaver, D., & Esposto, A. (2012). Peer assessment as a method of improving student engagement. *Assessment & Evaluation in Higher Education*, 37(7), 805-816.
- Weigold, K. J. (1999). *Self-concept and attitude towards traditional or alternative assessments: an exploration of gender differences in mathematics and science*. Unpublished Master Thesis, Eastern Michigan University, Michigan, United State.
- Wen, M. L., & Tsai, C. C. (2006). University students' perceptions of and attitudes toward (online) peer assessment. *Higher Education*, 51(1), 27–44.
- Whiteford P (2014). The times they are a-changing: a new model for senior secondary assessment. *UEA Journal of Educational Technology and e-learning*, 5, 66-76.
- Whitelock, D. (2011). Activating assessment for learning: Are we on the way with Web 2.0? In M.J.W. Lee and C. McLoughlin (Eds.), *Web 2.0-Based-ELearning: Applying social informatics for tertiary teaching* (pp. 319– 342). IGI Global
- Wiggins, G. (1998). A true test: Toward more authentic and equitable assessment. *Phi Delta Kappan*, 70(9), 703-713.
- Wilson, A. (2013). Feedback as a transformative tool. The role of feedback in learning and assessment. In K. Coleman & A. Flood (eds.), *Marking me. Leading and managing the development of assessment in higher education*, pp. 193–200, Common ground Publishing, Champaign, IL. Willey.
- Scruggs, T. E., & Mastropieri, M. A. (1998). *Tutoring and students with special needs*. In K. J
- Whittaker, C. R., Salend, S. J., & Duhaney, D. (2001). Creating instructional rubrics for inclusive classrooms. *Teaching Exceptional Children*, 34(2), 8-13.
- Woodwar, H., & Nanlohy, P. (2004). Digital portfolios in pre-service teacher education. *Assessment in Education*, 11(2), 167-178. Topping & Ehly (Eds.), *Peer-assisted learning* (pp.165-182), Mahwah. NJ: Lawrence Erlbaum Associates.

- Yang, Y.-F. (2011). A reciprocal peer review system to support college students' writing. *British Journal of Educational Technology*, 42(4), 687–700.
- Yang, Y.-F., & Tsai, C.-C. (2010). Conceptions of approaches to learning through online peer assessment. *Learning and Instruction*, 20(1), 72–83.
- Yang, W. M., & Xu, X. Z. (2008). Self-assessment in second language learning. *US China Foreign Language*, 6(5), 20-24.
- Zimbicki, D. (2007). *Examining the effects of alternative assessment on student motivation and self efficacy* (Unpublished doctoral dissertation). Valden University, Valden.

### **About the Authors**

“Mehmet DEMIR, Ph.D., working as an Assistant Profesor in the Department of Teacher Education at The University of Birmingham currently. He earned his Ph.D. and Master’s degree in Education Sciences-Curriculum and Instruction from the University of Inonu, Turkey in 2015 and 2010 respectively. He worked as a research assistant at Adiyaman University. He was a visiting scholar at the University of Pittsburgh in the School of Education’s Collaborative for Evaluation and Assessment Capacity (CEAC), PA, United States. He was actively involved in many projects› data collection, analysis and reporting. He also worked as a Research Assistant at The School of Education University of Pittsburgh. His research interest includes curriculum evaluation, assessment on math, alternative assessment, and online assessment through Social media. In the past, Dr. Demir worked as a principal and assistant principal for two years and taught for five years at different elementary schools.» [m.demir@bham.ac.uk](mailto:m.demir@bham.ac.uk)

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