

## Introduction

A portfolio is a purposeful collection of student work that tells the story of the student's efforts, progress or achievement in a content area. "Purposeful" describes the way that student work is selected and is indicative of the story ~~the~~ you want the portfolio to tell. A portfolio can serve many purposes: It can highlight or celebrate the progress a student has made. It can capture the process of learning and growth; it can help place students academically, or it can even simply showcase the final products or best work of a student. Ultimately, a portfolio is not just the pile of student work that accumulates over a quarter, semester or year. Instead, it is a very intentional process: both teacher & student must be clear about the story the portfolio will be telling and both must believe that the selection of and reflection upon their work serves one or more meaningful purposes. Portfolio is not either the arbitrary collections or observation of student's work to be filled haphazardly. It is important that portfolio collections should be purposeful, systematic, the determined criteria, and take a period of time. Portfolios should be multi-sourced, authentic, forms of dynamic assessment, explicit of purpose, establish a correspondence between program activities and life experiences, based on student's ownership, and multi-purposed. Thus portfolio is described as a systematic & purposeful collection of the evidence which reflect the success, performance, and efforts of the students in one or more areas over a period of time.



## Types of Portfolio in Student's Assessment

There is no an absolute description and content for portfolios. The types of portfolios are varied according to their purpose and collected items in it. Therefore, many researchers define different types of portfolio.

For example, according to Haladyn (1997), there are five types of portfolio that named ideal, showcase, documentation, evaluation and closure portfolio.

Melograno (2000, p.101), who made more detailed descriptions, defines nine types of portfolios. These types of portfolios are not exhaustive and can be used separately or in combination. These classifications are given below appropriately;

a) Personal Portfolio - For other students and teachers to form a more holistic view about students and to celebrate their interests, items may be include from within and outside school. The portfolio could contain pictures, awards, videos or other memorabilia. The personal portfolio serves as a catalyst for self-reflection and sharing.

b) Working portfolio - The ongoing, systematic collection of student work samples and exhibits can be maintained in a working portfolio. This



collection of daily, weekly, monthly or unit work products forms.

c) Record-keeping portfolio—This type of portfolio is usually kept by teachers. It contains necessary assessment samples and records that may be required (written exams, proficiency tests). It could also include observational information (e.g., anecdotal notes, frequency index scales, narrative descriptors, behaviour checklists) and progress reports that supplement traditional report cards.

d) Group portfolio—Each member of a cooperative learning group contributes individual items along with group items (e.g., samples, pictures, community project) to demonstrate the effectiveness of the entire group.

e) Thematic portfolio—This portfolio would relate to a unit of study with a particular focus, normally lasting from 2 to 6 weeks. For example, if a portfolio is constructed related to "Rational numbers", "Force" unit, this portfolio could reflect cognitive and affective skills and their views about these units.

f) Integrated portfolio—To view the whole student, works from all disciplines showing connections between or among subjects would be included. This portfolio can be prepared in math and science courses.



g) Showcase portfolio - Showcase portfolios are designed to display a learner's best quality of work. This might be to highlight student's success or to showcase a variety of accomplishments a student has achieved over a period of time. In showcasing a student's work, this portfolio allows them to describe and <sup>tell</sup> their own story.

h) Electronic portfolio - It is a collection of electronic evidences assembled and managed by a user, usually on the web. One can regard an e-portfolio as a type of learning record that provides actual evidence of achievement.

i) Multilayer portfolio - Students would collect items from a cluster of grade levels over 2-, 3-, or 4-year intervals. This multilayer portfolio would be stored at the school. For example - this portfolio can be used to follow student's progress periodically during primary and secondary school and university education.

The portfolios mentioned above can be used separately or different portfolios can be used together. So teachers should select proper ones and should apply them.

[Reference: BIRGIN, O. & BAKI, A. (2007). The Use of Portfolio to Assess Student's Performance. Journal of TURKISH SCIENCE EDUCATION, 4, 2, 81-83.]

# Advantages and Disadvantages

## ■ Advantages →

- Portfolio can present a wide perspective of learning process for students and enables a continuous feedback for them.
- Portfolio is strong devices that helps students to gain the important abilities, such as self-assessment, critical thinking and monitoring one's own learning.
- It provides ~~the~~ an opportunity for students to demonstrate his/her strengths as well as weakness.
- Portfolios can be integrated easily into instruction, i.e. used for assessment for learning.
- Every student in a class has individual talents. So portfolio can assess all the different angle which may differ from each other.

## ■ Disadvantages

- Scoring a portfolio may be seen as less reliable or fair than multiple choices test scores.
- Using portfolio is very time consuming for teacher to score students' works and assess students performance over time in a crowded classroom.
- Like any other form of qualitative data, data from portfolio assessment can be difficult to analyze.
- It is very much problematic for teachers to store, to handle and to control the portfolios in the crowded classroom.



## Purpose

The purpose of the portfolio is based on specific learning targets. It is a scrapbook of information and examples includes observations, tests, checklists and rating scales. Selection of best works. Students chooses work, profile and accomplishments and individual profile emerges. It is based on specific learning targets.

## Implementing Portfolio Assessment -

- i] Review with students.
- ii] Begin with learning targets
- iii] Show examples
- iv] Give opportunities to ask questions.
- v] Students and teachers decide together what to include with nonrestrictive guidelines.

## Student Self - Assessment -

- i] Reflective and self-assessment activities need to be taught.

ii] Some guide questions:-

- a) Can you tell me what you did?
- b) What did you like best about this sample of your writing?
- c) What will you do next?

iii] Self-reflective questions:

- a) What did you learn from writing this piece?
- b) What are your greatest strengths and weakness in this sample?

Peer Assessment:-

Analyse and constructive, supportive criticism of strategies, styles and other concrete aspects of the product.

Teacher Assessment:-

- i] checklist of content
- ii] Assessment of individual entries: use rubrics
- iii] Assessment of entire content: use sub



**Assessment of Portfolios** : There has been no exact way or method for the assessment of portfolios. However, some different methods can be used in terms of their aims. If the purpose of portfolio is to improve the students' learning and to diagnose his/her learning needs, then the works in the portfolio usually are determined by teachers. Student is given feedback for his/her works by teachers and peers. These kinds of feedbacks are used to improve the students' learning. If the purpose of the portfolio is to assess the student progress over an extended period of time, and to provide evidence for grades, than the portfolio contains some standard work for everyone and the works in the portfolio are selected by students. This portfolio includes the best works of student in a term or year. They are assessed by teachers in terms of the criteria determined before. The goal of portfolio grading is to strike a balance between product and process. In other words, a student's improvement in learning process is just as important as their ability to produce a well-shaped product which meets standard rubric-like criteria, so portfolio grading focuses on both the learning process as well as the quality of products. Consequently, portfolios are graded as a whole, and each item in a portfolio can be used to showcase a student's best works or provide evidence for a student's self-assessment of his or her learning process and growth. It is used a variety of different approaches to grade portfolios. Kuhs (1994, p.87) states that three basic approaches can be used. The first is to evaluate each piece of work in the portfolio and average those grades to determine the portfolio grade. The second is to use an analytic scheme where separate grades are given for different performance. For example, a teacher might review the portfolio and given one grade each for the problem-solving ability to communicate mathematical ideas, to carry out procedures accurately, to demonstrate insight and understanding of ideas, and to apply mathematics in problem solving situations. Unlike in the first approach, this approach is based on reviewing several pieces of work in the portfolio. This assessment strategy was used in 1992 Vermont became the first state to use portfolios as the centerpiece of a statewide assessment of student's achievement in mathematics courses. Each piece in this mathematics portfolio was rated on seven dimensions and each dimension was scored on a different 4-point scale. There were four problem solving dimensions and there communication dimensions (Koretz, Stecher, Klein & McCaffrey, 1994). Also, this strategy was used by Birgin (2003) in a computer-based portfolio for assessing at the seventh-grade students' mathematics performance. The third approach to scoring students' work, when a single score is determined focusing on several dimension of performance, is termed the focused-holistic approach. This approach allows the teachers to give a single grade for all pieces contained in the portfolio such performance attributes as the student's ability to interpreted the problem and information in the problem, select and use appropriate solutions strategies, and evaluate and connect the answer to the given problem situation.

### ***How will the portfolio be used for student evaluation?***

If the purpose of evaluation is to demonstrate growth, the teacher may want to make judgments about the evidence of progress periodically and provide feedback to students or make note of them for his or her own records. The student could also self-assess progress shown or not shown, goals met or not met. On a larger scale,



an evaluation of the contents within the portfolio may be conducted by the teacher, by peers, or external evaluators for the purpose of judging completion of SLOs, standards, or other requirements. Regardless of the purpose, however, the criteria must be fully and carefully defined and transparent to all. This is usually best done through the use of a rubric. Giving students a voice in defining success criteria gives them ownership in the process.

There are three possible levels of assessments within the portfolio evaluation process:

- the **work samples** selected
- **student reflections** on the work samples
- the **portfolio** itself

Again, it is essential to have clearly articulated the criteria at each of these levels

### ***Work Samples***

It is important to establish criteria that would commonly be used to define quality performances within a content or skill area. Each of these criteria should be clearly outlined and explained to students so they understand the component parts that indicate mastery. In order to ensure that the portfolio assessment process does not become overwhelming, it is important to assess the individual samples prior to their inclusion in the portfolio. Each work sample included in the portfolio may be assessed using similar types of performance-based assessment tools--checklists, rating scales, or rubrics.

### ***Student Self-Reflection***

The set of criteria on which student reflections will be assessed should support students as they reflect on both the processes and products of their learning. Criteria might include:

- thoroughness of analysis-inclusion of details and evidence
- honesty of assessment
- self-understanding/revelation
- evaluation of personal goals
- statement of future goals
- personal voice
- quality of writing

Each reflection piece included in the portfolio may be assessed using similar types of performance-based assessment tools—checklists, rating scales, or rubrics.

### ***The Portfolio Itself***

The portfolio should reflect those elements that you have determined are critical to the development of the portfolio. You and your students might consider criteria such as:

- Organization
- Neatness

- Visual appeal
- Evidence of growth
- Variety of artifacts
- Evidence of positive attitude to learning
- Balance of process and product
- Risk taking
- Achievement of specific curricular objectives
- Inclusion of all required elements (completeness)

There are many ways to evaluate the portfolio as a whole. Some portfolios are graded simply on whether or not the portfolio is completed as required. In using portfolios to show student growth, teachers may feel that it is appropriate to assign a value to the end product that reflects progress toward or attainment of SLOs.

### ***Portfolio assessment as a tool for teacher evaluation:***

A portfolio based system is one plausible way to assess teacher performance through evidence of student growth. Portfolio assessment has the potential to improve the complex task of student assessment making it possible to document the unfolding process of teaching and learning over time. A successful portfolio assessment that provides evidence of student growth for the purposes of teacher evaluation—

- Includes clearly defined **student learning objectives**
- Begins with a pre-assessment to gauge student learning
- Is ongoing rather than representative of a single point in time
- Allows a window into process as well as products
- Provides opportunities for students to revisit and revise, guided by evaluation criteria
- Allows for diverse means of demonstrating competency
- Serves as a demonstration of student strengths
- Includes student reflection, decision-making and goal setting
- Provides tangible evidence of student's knowledge, skill, abilities and growth
- Involves student choice
- Includes student evaluation and progress monitoring
- Provides a means for managing and evaluating multiple assessments for each student (variety- pre/post, formative, audio, video, essays, letters, journals, self-assessments, reflections, drawings, graphs, etc.)
- Includes an audience
- Allows students the opportunity to communicate, present and discuss their learning with teachers, parents, community and/or experts.