

# **INSTRUCTIONAL SKILLS WORKSHOPS: A MODEL FOR TRAINING PROFESSORS HOW TO TEACH**

Peter FENRICH

British Columbia Institute of Technology, Canada

Ron JOHNSON

Consultant

**ABSTRACT:** This paper describes a practical and experiential workshop designed for training professors and secondary school teachers how to teach. Training professors is a particular problem throughout the world as professors typically hired for their content expertise rather than their teaching skills. The workshop provides a model that enables professors and teachers to develop and deliver successful lessons. The model has six components called the bridge-in, outcome or objective, pre-assessment, participatory/active learning, post-assessment, and summary. The workshop takes four days with the first day covering the theoretical foundations for teaching effectively. The following three days start with an educational topic and then each participant presents a mini-lesson. The mini-lesson cycle lasts forty minutes consisting of up to ten minutes for setting up, ten minutes for lesson delivery, five to seven minutes for self-reflection and written feedback, and thirteen to fifteen minutes for oral constructive feedback. This paper will also discuss how this workshop could be implemented.

**Key words:** Instructional skills workshop, training, professional development

## **INTRODUCTION**

The Instructional Skills Workshop (ISW) is designed for training professors and secondary school teachers how to teach. Training professors is specifically a major problem in both developed and developing countries as professors are typically hired for their subject matter expertise rather than their teaching skills. Similarly, the ISW can be used to train secondary school teachers in countries where the teachers do not require training or have minimal teaching skills. Although this paper mainly refers to professors, secondary school teachers can equally and distinctly benefit from ISWs.

The ISW supports a model that, if followed, will enable professors to design and deliver successful participatory lessons. The model includes six components called the bridge-in, outcome, pre-assessment, participatory learning, post-assessment, and summary.

The workshop takes four days with the first day covering the theoretical base, which includes the model, characteristics of effective instructors, the learning process, writing learning outcomes, the mini-lesson cycle, and giving constructive feedback. The following three days start with an educational topic and then each participant presents a ten-minute mini-lesson. The mini-lesson cycle includes set up time, delivery of a mini-lesson, self-reflection, and constructive feedback. Each mini-lesson is video-recorded to give the participant an additional opportunity to reflect.

This paper presents a brief history of the ISW and then describes the ISW, its goals, its schedule, the six-phase lesson model, the mini-lesson cycle that has a focus on experiential learning, how the Facilitator's Development Workshop (FDW) is used to train facilitators, and the FDW cycle. This paper also discusses how the workshop can be implemented.

## **A BRIEF HISTORY**

In 1979, Douglas Kerr, a consultant hired by the British Columbia Ministry of Advanced Education, and numerous colleagues completed the creation of the ISW, which was intended to provide the basic instructional skills needed by post-secondary teachers. The program was updated in 1982, 1989, 1993, 2003, and 2006. It is currently undergoing a revision. Since its inception, ISWs have taken place in over 34 countries. Its popularity is due to its accommodation of a wide range of disciplines, its adaptability to both novice and highly-experienced professors, and the process profoundly impacting participants.

## **ISW DESCRIPTION**

The ISW is an intensive four-day, 24-hour workshop designed to provide professors with the skills needed to teach effectively. It is facilitated by trained individuals who are also professors or are professionals in the educational field. Each ISW is conducted with one facilitator (although it can be done with two facilitators) and four to six participants. Participants can be professors in any field with any level of teaching experience.

The ISW is a peer-based model where feedback is provided to professors by peers, who are the other participants. The ISW is based on experiential learning and principles of learner-centered instruction. Participants leave the workshop with an improved level of instructional competence and confidence in their ability to design and deliver instruction.

## **ISW GOALS**

The goal of an ISW is to provide professors with practice in:

- Writing learning outcomes
- Addressing the varying learning preferences of students
- Writing lesson plans based on the six-phase model
- Conducting participatory lessons using a variety of instructional strategies and techniques
- Using questioning techniques
- Using common instructional media (if available)
- Assessing learning
- Giving and receiving constructive feedback

To accomplish this, participants are expected to:

- Actively participate
- Ask questions
- Share experiences
- Take time to reflect and learn
- Be open minded

## **ISW SCHEDULE**

ISWs are typically conducted over four days. Day one provides the theoretical foundation for instructional skills development. Day two consists of learning more instructional skills (typically a 60 to 90-minute discussion) and forty-minute cycles where each participant presents a mini-lesson while the other participants take on the role of a learner. Each participant reflects on his or her mini-lessons, receives written and verbal feedback, and considers how to apply what was learned to his or her next mini-lesson and future lessons. The process of giving feedback also focuses each participant on the lesson model, and develops the professors' ability to analyze his or her own lessons. Days three and four are parallel to day two. Each participant delivers three mini-lessons and receives feedback three times. Three mini-lessons allow for enough practice, reflection, and feedback for professors to improve as well as for opportunities to challenge themselves or to experiment, such as trying one lesson in each of the cognitive, psychomotor, and affective learning domains.

Day one typically consists of introductory and group-development activities, discussions on the characteristics of effective and ineffective instructors, the basic learning process, how to write learning outcomes, the six-phase lesson model, and how to provide constructive feedback, and seeing the forty-minute cycle modelled.

The introductory activities on day one help the group formation process that is necessary for participants to effectively support each other throughout the workshop. The characteristics of effective and ineffective instructors' topic helps participants to reflect on both the good and bad instructional practices that they have experienced and become aware of what they should and should not do. The presentation of the basic learning process helps professors understand ways to help learners understand and retain what is taught. The writing learning outcomes presentation teaches professors how to write measurable learning outcomes that are at the highest level needed while stating appropriate conditions and criteria. Professors are then taught the six-phase model. This model provides a foundation for delivering successful lessons. The discussion on constructive feedback enables participants to provide effective feedback for the professor who delivered the mini-lesson as well as to teach how feedback should be given in their own classrooms. Modelling the cycle clarifies the mini-lesson cycle for the following days. Participants set individual goals and articulate them to focus their learning.

### BOPPPS LESSON MODEL

The BOPPPS (acronym) lesson model is a blend from several educational theories. It has the following parts:

Beginning:

1. **B**ridge-in: Connects the student to the lesson and answers the question “Why should I learn this?” It is meant to gain attention and establish relevance.
2. **O**utcome: A clear measurable statement(s) of what the learner will be able to do after completing the lesson. Outcomes (also called objectives) provide the foundation that the learning activities and assessment are based upon.
3. **P**re-assessment: Determines what the learner already knows related to the topic. This helps the instructor determine where to start, which activities are necessary, and how to involve learners who already have some degree of the knowledge or skill that will be taught.

Middle:

4. **P**articipatory (active) learning: The heart of the lessons where the learner receives instruction and practices with feedback. The learners interact with the material, the instructor, and each other.

End

5. **P**ost-assessment: Allows the professor and learners to confirm that they have achieved the specified learning outcome.
6. **S**ummary: Closes the lesson, connects the learner back to the outcome, and may prepare the learner for the next lesson.

The BOPPPS model allows considerable flexibility in delivery, while including the major functions that support learning.

### LESSON PLANS

Lesson plans are a tool professors can use to develop lessons and improve their teaching. Lesson plans follow the BOPPPS model and include items such as estimated time, materials and equipment needed, and activities the students will experience.

### CONSTRUCTIVE FEEDBACK

Constructive feedback is information provided to the professors to help improve their performance. It is critical that they identify what works so that they continue to do those things and what could be changed to improve performance. Effective feedback is specific, descriptive, behavioral, balanced, manageable, changeable, related to the needs of the receiver, timely, and checked for understanding. The receivers accept feedback, check for understanding, focus on what is important to him/her, and keep emotions separate. With three mini-lessons, each participant has the opportunity to experiment and check for effectiveness.

### ISW 40-MINUTE CYCLE

As shown in figure 1, the mini-lesson cycle takes forty minutes. There is up to ten minutes for setting up the learning environment, ten minutes for lesson delivery, five to seven minutes for professor self-reflection with the facilitator, and thirteen to fifteen minutes for constructive feedback from the learners (the other participants) to the professor.

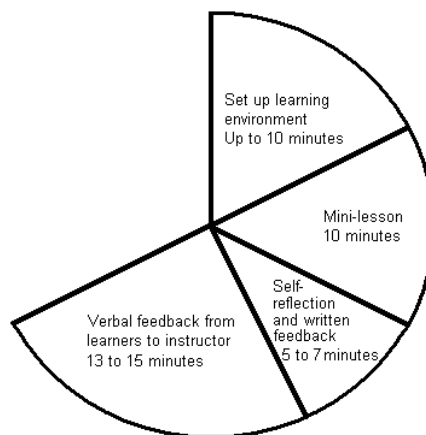


Figure 1. Professor Development 40-Minute Mini-Lesson Cycle

As illustrated in figure 2, the focus of an ISW is experiential learning. The learner has a real teaching experience and then learns from that experience through self-reflection, making conclusions based on the received feedback, and then planning for the next teaching experience based on what was learned. This process should be followed throughout one's teaching career.

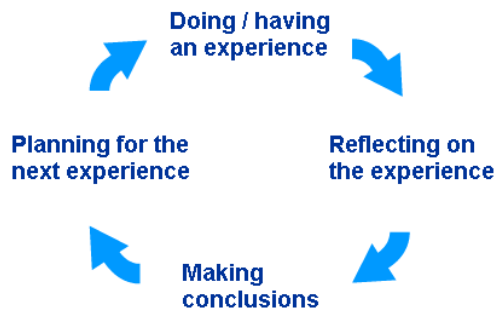


Figure 2. Experiential Learning Cycle

### FACILITATOR DEVELOPMENT WORKSHOP (FDW) DESCRIPTION

The FDW develops the skill to lead an ISW. It uses the ISW (one day of theory and three days of practice with feedback) as a nucleus with an emphasis on learning how to establish the group environment for a successful ISW, how to assist ISW participants to learn the six-phase model, and develop strategies to elicit useful feedback for the participants. A final day allows the participants to address issues in planning and delivering an ISW.

A highly experienced facilitator takes the role of trainer to teach the facilitation process. In the FDW cycle, one of the participants takes the role of facilitator, one the role of professor, and the others the role of learners/students. The professor delivers a mini-lesson as in the ISW. Then there are two levels of feedback. First, the facilitator practices eliciting feedback for the professor from the learners. Then the trainer elicits feedback for the facilitator.

### FDW 60-MINUTE CYCLE

As shown in figure 3, each facilitator development mini-lesson cycle takes sixty minutes. The initial forty minutes is the same as the professor mini-lesson cycle, as shown in figure 1. After that, there is five minutes for facilitator self-reflection, and fifteen minutes for constructive feedback from the learners to the facilitator.

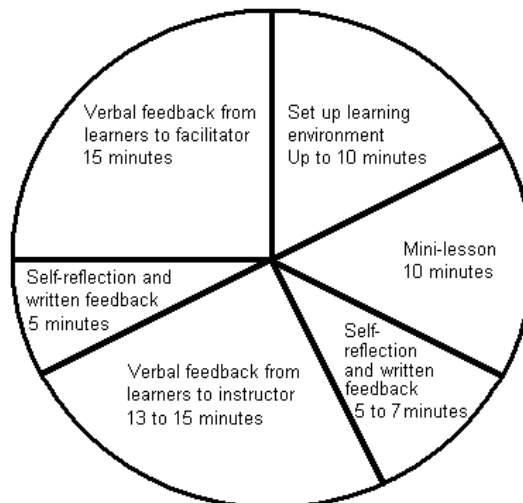


Figure 3. Facilitator Development 60-Minute Mini-Lesson Cycle

### IMPLEMENTATION IN DEVELOPED OR DEVELOPING COUNTRIES

In post-secondary education, professors are hired primarily for their subject matter expertise, specifically their academic, professional, and research background. In some countries, secondary school teachers have little or no

training. The Instructional Skills Workshop (ISW) provides a solid model for planning lessons and gives the participants direct experience teaching and analyzing a lesson to determine which parts are effective and which could be changed to improve the learning experience. The ISW is respectful of professors and teachers with teaching experience, building on their existing skills and guiding them to develop and improve needed abilities. Often workshops are most successful when the participants are of mixed specialties as they focus on the teaching itself as opposed to their specific content area. Workshops can be less successful when administrators, who have power or influence over the professors, and professors are in the same workshop if the professors are not comfortable in speaking freely or teaching in front of the administrator. It could be argued that there is little value in having an administrator attend a workshop. However, administrative support is essential and participation may convince an administrator that the workshop is effective.

The educational philosophy of the ISW is a mix of cognitive and constructivist theories and allows flexibility for professors to respond to individual classroom situations. The foundation of learning theory in the ISW is engagement with both the facilitator and other participants and active learning. This means that the professors, and consequently their students, learn best when they are connected to the content to be learned and actively practice the skills while receiving feedback on their progress. Content is more easily learned and retained when it has meaning in a student's life. Learning is supported by careful alignment between clearly expressed objectives, learning activities, and evaluation that are as authentic as possible.

When professors specifically address the cognitive, psychomotor, and affective learning domains (as is applicable), students gain a well-rounded set of abilities relevant to their future success. The cognitive domain relates to facts, theories, concepts, and their application to real-world issues. Psychomotor skills relate to physical abilities gained by practice and experience. The affective domain are attitudes, values, and beliefs that are important in relation to the content. These might be concepts like safety, professionalism, and ethics.

To implement a post-secondary teacher program, the long-term goal must be to acquire the independent capacity of the receiving organization to develop teaching skills in its faculty. The ISW has an existing structure that supports this goal. At the base is the ISW itself. It is where practiced facilitators lead a group (4-6 per facilitator) of professors through the process to learn and practice teaching skills. The next level is the Facilitator Development Workshop (FDW) where experienced ISW trainers help professors experienced in the ISW model to learn and practice the skills needed to facilitate an ISW. A future part of a subsequent FDW is where experienced facilitators work with experienced trainers to become trainers of facilitators themselves. Experienced trainers also take on the role of director or co-director to plan and coordinate the overall FDW. The directors also have the responsibility to monitor the whole process to ensure that the facilitators-to-be and the trainers are getting the experience they need and are achieving the skills at an acceptable level. The directors are connected to the ISW International Advisory Committee, which supports ISW activities to maintain continuity and ongoing improvement in materials like the ISW Handbook, the FDW Handbook, and other supporting materials. It also provides a level of quality control and reassurance to the receiving institution.

To implement the ISW in a new area, the following steps can be effective:

1. Prepare a plan for the development of instructional skills within a specific institution or region in cooperation with the institution(s) and relevant government agency/agencies. The plan must include ongoing support for the ISW.
2. Recruit a cadre of experienced professionals who are respected by their colleagues. This may be started in a department willing to invest the resources needed, and later extended to the whole institution as resources and time permit.
3. Schedule the ISW in groups of 4 to 6 professors with 1 facilitator, with the workshop to be delivered in the participants' home area. It would be helpful to deliver at least 2 of these workshops, to create a large group of teaching practitioners who share the same understanding and terminology.
4. Develop an ongoing exercise such as the professors developing lesson plans for a program, keeping a journal of their teaching experience, and/or visiting each other's classrooms regularly to encourage each to practice the instructional skills and mutually support each other in developing their skills further.
5. After some time practicing the teaching skills, schedule an FDW with the more successful professors becoming ISW facilitators. Four or five facilitators should be trained.
6. After a body of facilitators has been trained, schedule an FDW where some of the experienced facilitators become trainers of facilitators.
7. Once the process has been established, there should be ongoing development of facilitators and trainers to maintain an effective group and to enable the rest of the faculty of the institution/region to be trained.
8. All facilitators and trainers are linked to the ISW network for information and support and can call on the ISW International Advisory Committee for advice and connection to resources.

9. It can be useful to have cooperative ISW activities with other institutions, regions, and even countries.

The above program would take at least 2 years to get the numbers for the process to be self-supporting. It requires a commitment from the institution to provide ongoing support to be effective with the recognition that it takes time for professors to master the model of teaching. Participants need to continue to support each other after the workshop and this process should be built into the plan. Professors who successfully complete the ISW and practice the skills gained, can receive advanced credit towards the British Columbia Provincial Instructors Diploma (PIDP) delivered by Vancouver Community College, which provides additional skills such as course design, course evaluation, developing instructional media, and concepts like the characteristics of learners. The courses in the PIDP are available at a distance.

### **SUMMARY**

Post-secondary professors are mainly hired for their content expertise and often do not have any training regarding teaching skills. To support these professors, the Instructional Skills Workshop (ISW) provides a six-phase model (consisting of a bridge-in, objective, pre-assessment, participatory learning, post-assessment, and summary) for planning lessons, gives participants real teaching experiences, and helps them analyze lessons to determine the effective parts and which could be modified to improve learning. The ISW respects professors with teaching experience, builds on their existing skills, and guides them to develop and improve needed skills. The FDW attains the next level of training facilitators and trainers of facilitators.

Through careful planning and support, ISWs and FDWs can be successfully established in both developed and developing countries at both the post-secondary and secondary school levels.

### **REFERENCES**

- Instructional Skills Workshop International Advisory Committee. (2006). *Facilitator Development Workshop Participant Handbook and Facilitator Resources*. Instructional Skills Workshop International Advisory Committee, British Columbia, Canada.
- Instructional Skills Workshop International Advisory Committee. (2006). *Instructional Skills Workshop (ISW) Handbook for Participants*. Instructional Skills Workshop International Advisory Committee, British Columbia, Canada.

## **USING PEER ASSESSMENT IN EDUCATION**

Mehmet DEMİR  
Adıyaman University, Turkey

**ABSTRACT:** Peer assessment is an arrangement for work of each peers in similiar status to consider and specify the level, value, queality of work oramount of product or learning incomes or performance of the other learners. The goal of the assessment is to determine differences between expected performance and actual performance, give opportunities to students to take corrective action, and support their learning by providing affluent feedback. In addition, the assessment method has been utilised, including monitoring the performans of group assignments by instructors, or as a tool of reflection by students through to increase the pragmatic efficiency to reduce workloads of educators. Peer assessment emerges as a new form of assessment although it has actually been utilised for centuries. The advantages of the assessment of writing and the method was described. In recent years, there has been much renewed interest in the assessment because of a formative assessment method. Thus, peer assessment can be widely used vary in number of ways, including writing, teaching, business, science, engineering to medicine as well as using a teaching strategy in education.

**Key words:** Education, Peer assessment, Teaching

### **INTRODUCTION**

#### **Definition and Typology**

Peer assessment may sound like a new method; however, it has been used widely for hundreds of years now. Professor George Jardine from the University of Glasgow has identified the peer assessment methods adopted between 1884 and 1826, as well as its advantages. Today, peer assessment is identified differently.

“It is a process of a group of individuals evaluating their peers.” (Lee, 2008: 32). In this process, peer assessment uses the knowledge and skills of students to explain, review and improve the works of peers (Ballantyne, Hughes and Mylonas, 2002). In other words, peer 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 (Topping, 1998) 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 (Gielen, Peeters, Dochy, Onghena and Struyven, 2010).

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 the pragmatic efficiency while reducing their work load (Weaver and Esposto, 2012). 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 (Tseng and Tsai, 2007). Nature of these evaluation activities vary 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 may be evaluated through peer assessment.

The participants of the peer assessment application may be assessors or assessee, 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, attainment of positive results incentivize the in-silico 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 in different times and contexts. In conclusion, application of peer assessment in schools may improve the transferable skills used in the daily life (Topping, 2009).

#### **The Importance of Peer Assessment**

The recent years witnessed a never before seen growth in the numbers of students attending higher education institutions world-wide. Nevertheless, the rates of employment in many organizations are disproportionate to this growth (Oldfield, Mark, and Macalpine, 1995). 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 (Bilington, 1997). 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 (Davies, 2000; Gibs, Lucas, and Spouse, 1997). In this vein, this situation does not result with the equation of “larger classrooms, less resources, 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 (Gibs, Lucas, and Spouse, 1997). The situation is not projected to change in case of further proceeding of cost-cutting measures.

One of the most encountered problems in 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 improvement of interpersonal relationships within classrooms (Sluijsmans, Brand-Gruwel, and van Merriënber, 2002). Many other studies too, emphasize that peer assessment has a positive impact on cognitive, metacognitive and social impact areas of students (Smith, Cooper, and Lancaste, 2002; Topping, 2003; Tsai, Lin, and Yuan, 2002), and its necessity for students during their education. For the aforementioned reasons and more, peer assessment is method needed to be employed (Ballantyne, Hughes, and Mylonas, 2002).

### **Benefits of Peer Assessment**

Peer assessment has been successfully applied in preschools, elementary, middle, and high schools, including with special educational needs (Scruggs & Mastropieri, 1998). 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 development of metacognitive and transferable skills, production of an enhancing impact on reflective thinking and problem-solving skills throughout a student’s education life (Sluijsmans, Docy, and Moerkerke, 1999; Smith, Cooper, and Lancaster, 2002; Topping, 1998);
- It is effective in the development of verbal communication and reconciliation skills, as well as of giving and taking criticism (Topping, Smith, Swanson ve Elliot, 2000);
- It incentivizes students to have a sound grasp of the goals and purposes of the lesson, as well as the evaluation homework (Topping, et al., 2000);
- It pushes the assessor to focus on the question of what the constituents of a work, good or bad, should be (Searby and Ewers, 1997);
- It enables going beyond the customary process of assessment, thus helps students comprehend why and how they will be rewarded with grades (Brindley and Scoffield, 1998);
- It helps students have a better understanding of the requirements for attainment of a certain standard, and enables them to be cognizant of the assessment process’ details (Falchikov, 1995; Hanrahan and Isaacs, 2001; Race, 1998);
- 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 (Dochy, Segers, and Sluijsmans, 1999; Topping, et al., 2000);
- 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 (Brindley and Scoffield, 1998; Race, 1998);
- It incentivizes students to reflect their own evaluation approaches on their evaluation homework (Dochy, et al., 1999);
- 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 (Heron, 1981; Cited by: Resta and Lee, 2010).



### **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 peer assessment method in higher education as a stylistic assessment tool is still a novel idea. Academic personnel, teachers and students' lacking of 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 (Ballantyne, et al., 2002).

Another remarkable negative aspect of the method is, that many teachers, who manage to involve their students successfully in the learning process through on 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 (Topping, 2009). 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 (Ond, Ul-Haq, and Meyer, 1995). Avoidance of this negative situation can only be achieved through the employment of peer assessment along with self-assessment (Dochy, et al., 1999).

### **Pedagogical Merits of Peer Assessment**

The educational merits in 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 (Cestone, Levine, and Lane, 2008).

### **Feedback**

The primary purpose of peer assessment is providing students with feedbacks; therefore, these 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 (Butler and Winne, 1995; Topping, 2009). 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 feedbacks given by their friends as transitory and individual, whereas those they receive from their teachers are construed as a feedback of the authority. Therefore, feedbacks taken from peers are more substantial and beneficiary for students (Cole, 1991).

### **Cognitive Gains**

Peer assessment's gains are associated with both the assessor and assessee (Topping and Ehly, 1998). For 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 which 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 (Searby & Ewers, 1997). 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 (Falchikov, 2001). In order 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. For 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 feedbacks. Therefore, considering these steps will make it easier to apply the method. When the literature is scanned (Toppng, 2003; Webb and Farivar, 1994), 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 (Topping, 2009).

### **Involving Participants in Designing and Procedures**

Involving students in the first place, helps teachers determine the nature of the events to be held, matters concerning the purposes of the lesson, as well as the assessment criteria. Involving the participants in the process of determination and development of these criteria, even if their suggestions do not differ much from the already proposed style, yields positive impacts on students, such as helping them with possible feelings of anxiety, giving them the sense of belonging, preparing them, as well as making it easier for them to decide while making self-assessment (Cestone, Levine, and Lane, 2008).

### **Using Periodic Assessment**

Employing peer assessment as a regular assessment tool brings along many advantages. When this tool of assessment is used at the end of the learning process, it is seen to help students to avert their concerns of not being able to just (Gueldenzoph and May, 2002; Haberyan, 2007). Employment of this formative assessment method gives students the opportunity to acquire the skills they need to make assessments. On top of it, students have the chance to make an objective and reliable assessment, thanks to this standardized tool of assessment (Michaelsen, Knight, and Fink, 2004).

### **Matching Participants and Setting Contract**

Pairing the participants, and organizing the communication. Mainly, the purpose should be pairing 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 (Topping, 2009).

### **Monitoring and Coaching**

Quality education makes remarkable difference. The students should be informed on the expectations from them, including the roles and actions to be taken by the assessors and assesses. 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 (Topping, 2009).

### **Evaluation and Giving Feedback**

Convey your own observations as the evaluator to the students on their performances, and examine the reliability of their assessments (Topping, 2009). For this, teachers should keep their expectations low while applying peer assessment in the beginning and guide their students by giving feedbacks. 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 sense of reliability.

## REFERENCES

- 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.
- Billington, H. L. (1997). Poster presentations and peer assessment: novel forms of evaluation and assessment. *Journal of Biological Education*, 31(3), 218-220.
- Brindley, C. & Scofield, S. (1998) Peer assessment in undergraduate programmes, *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.
- Butler, D. L. & Winne, P.H. (1995) Feedback and self-regulated learning: a theoretical synthesis, Review of Educational Research, 65(3), 245-281.
- Cole, D. A. (1991). Change in self-perceived competence as a function of peer and teacher evaluation. *Development Psychology*. 27, 682-688.
- 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.
- Davies, P. (2000). Computerized peer assessment. *Innovations in Education and Training International*, 37(4), 346-355.
- 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.
- 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*. London: Routledge Falmer.
- 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
- 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.
- Kollar, I., & Fischer, F. (2010). Peer assessment as collaborative learning: a cognitive perspective. *Learning and Instruction*. 20(4), 240-348.
- Lee, H. (2008). *Students' perceptions of peer and self assessment in higher education online collaborative learning enviroment*, Unpublished Dissertation, The University of Texas at Austin, Texas, USA.
- Michaelsen, L. K., Knight, A. B., and Fink, D. L. (2004). *Team-Based Learning: A transformative use of small groups*. Westport, Conn.: Praeger.
- 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.
- 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* (Birmingham, SEDA publications).
- 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: Willey.
- Scruggs, T. E., & Mastropieri, M. A. (1998). Tutoring and students with special needs. In K. J. Topping & Ehly (Eds.), *Peer-assisted learning* (pp.165-182), Mahwah, NJ: Lawrence Erlbaum Associates.
- 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.
- 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.
- 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.
- 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.
- Tsai, C. C., Lin, S. S., & Yuan, M. (2002). Developing science activities through a network peer assessment system. *Computer & Education*, 38, 241-252.
- 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.
- Weaver, D., & Esposto, A. (2012). Peer assessment as a method of improving student engagement. *Assessment & Evaluation in Higher Education*, 37(7), 805-816.