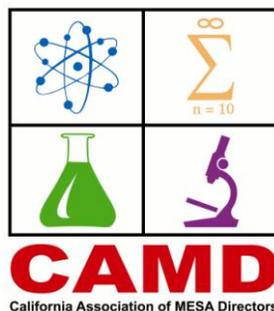




Academic Excellence Workshops A Guide for Facilitators

Adapted from: Academic Excellence Workshop Handbook
For the Community College MESA Program
By Dr. Derrick Booth & Dr. Sue Tappero



WHAT ARE ACADEMIC EXCELLENCE WORKSHOPS?

An Academic Excellence Workshop (AEW) is a small community of students working collaboratively to master course material with the guidance of a facilitator. The AEW is designed to give students the opportunity to enhance their learning experience for a particular course. The facilitator for an AEW is trained to develop exercises that foster debate on key elements that have historically given students difficulty and impeded the learning process. As a result of this interaction the students gain both a sense of connectedness and the development of their own learning community.

As stated, an AEW is designed as an enhancement and not a supplement to the lecture. The students are actively challenged each session to work as a group to solve the problem sets. Within these sets are a number of challenge problems that are designed to foster debate on the tactics, procedures and results of these difficult problems. Depending on the situation and subject matter these challenge problems should incorporate several concepts and whenever possible these problems should crossover. For instance, algebra and trigonometry students could and should be working on physics problems using the kinematic equations and force diagrams while learning the math concept to gain early exposure to the subject. Early exposure to subjects like physics is critical to future success.

Because the workshop content is designed to reinforce and enhance the course work, the AEW Facilitator should work in conjunction with the faculty member to whose class the workshop is assigned. The AEW facilitator meets regularly with the instructor to be sure that the worksheets developed are in line with what the class is learning and to be sure that their own knowledge of the material is complete. In essence the instructor becomes a mentor for the facilitator. The process is mutually beneficial. The facilitator by virtue of working closely with the students is able to inform the instructor of where the students are struggling--ensuring better service for all of the students in the class.

Although it is hard on our egos, we often learn more from mistakes than we do from our successes. Few students will risk appearing incompetent in a group in which he/she feels excluded whether it is justified or not. Because the Academic Excellence Workshop consists of small groups with the students working closely together, the AEW quickly provides a safe and supportive environment. Because the environment is a safe haven, students should try ideas and learn to speak the terminology. No matter what their level of mastery, all students must be engaged in the dialog. After speaking technically the student should then be asked to describe the process in "plain English" or vice versa.

Successful Workshops

Successful workshops will produce many lasting benefits for the student. The primary short-term benefit of the AEW is, of course, to improve the student's grade for that course. Described below are several long-term benefits of an effectively run AEW.

Learning Community

Students involved in the workshops see the importance of developing a cluster of students to work with collaboratively. They understand the value of MESA clustering and do this on their own. One of the most rewarding and lasting effects of the AEW is that the students have learned

to work with out the need for special tutoring. They have learned how to form their own learning communities. In the workshop, successful academic strategies were taught through group work in the context of a specific course and now the student is able to take these strategies and apply them to future learning communities and courses.

Opportunity to Intervene

The AEW provides an opportunity for the director or counselor to directly observe a student. The workshops also allow for more personal contact between the facilitator and student. The facilitator by virtue of working closely and observing the small group of students will have the opportunity to give insight as to if and why the student is struggling during the periodic meetings with the administrator. Among other things, the facilitator will see class notes and will have discussions relating to the text with the student. These insights can be invaluable to a counselor when determining how to help with study skills.

Behavior Modification

As mentioned before, the AEW model puts the onus on the student. The students learn to become conscientious so that the tools and behaviors learned can be applied to future classes. The students learn to take academic chances, that is to say, that during the course of the workshop the student learn to voice questions or use the technical terminology. Speaking out in class has often been seen as a problem for many students. The fear of seeming inferior, of being laughed at often raises doubts in the student's mind as to whether or not a question is a "reasonable" question to ask in class. Therefore in small groups students engage in dialog where they are able to "try out" the terms and ask questions of peers that they are comfortable with. Eventually the student's confidence is built enough to take the risk of asking a question or voicing an opinion during lecture.

The students, while engaged in the AEW, learn to become active learners and learn to rely less on passive individualized study. The AEW process forces an active learning process, rather than memorizing and passive reading. Often students will study a math class for application approaches while the instructor is also looking for knowledge of the underlying theory. AEW discussions touch upon this and teach the students that mastery of a course is demonstrated by understanding both the theory and the application.

The premise that the workshop problems are to be solved through group effort requires the use of more challenging problems on the worksheets. Several advantages follow from this dynamic. Demanding problems elicit genuine debate about the principles and strategies required to solve them. AEW groups become used to attacking difficult problems and routinely solving them. This helps to build their confidence so that they realize that they *are* capable of excellent work and demand it of themselves. They no longer settle for average work. When this occurs it becomes unfathomable to a student that a concept is not understood. They do things like speak out in class and wait around the instructor's office even when there aren't office hours just to have it explained to them. Secondly, the awareness that the group successfully solved some really demanding problems builds self-confidence. Finally, the student is more likely to take a difficult exam in stride if his/ her preparation routinely includes difficult problems. It is often easier to find the gaps in your knowledge when you try to explain a problem to someone, invariably they will ask a question about something you did not consider. When done properly the facilitator outwardly is a small part of the equation. The students run the show.

Benefits of MESA Students as Facilitators

Some community colleges are too isolated to have the resources of more advanced students and must work to develop their own facilitators from in-house, a more arduous task. Secondly, there is much to be gained for the student facilitators themselves in terms of academic and professional development. This is invaluable for the student and for MESA.

WHO IS INVOLVED IN THE WORKSHOPS? -- KEY STAFF

The Administrator

The administrator for the workshops, usually either the MESA Director or the MESA Counselor, is responsible for determining which courses are to be targeted and ensuring that the model is followed. The administrator should have identified the course and instructor in advance of registration for the next term and notified the students. Course sections are identified because the instructor is known to have a reputation for approachability and thoroughness.

The Administrator should take routine visits to workshop sessions and monitor both the students' and the facilitator's progress. This allows for the administrator to view firsthand if an intervention is necessary and to determine how closely the model is being adhered to. The AEW model will not work for all students: some will need tutoring in addition to the workshop. The administrator should also keep a watchful eye on the facilitators who can be subject to the same stresses as the workshop participants. Because of this the administrator may need to intervene on the facilitator's behalf. The intervention on either the student's or the facilitator's behalf should occur inconspicuously during regular informal chats.

The Faculty Liaison

The program strives to enhance the learning in the specific disciplines and courses. The faculty member to whose course the AEW is assigned is designated as the faculty liaison for the course. The faculty liaison is important for sustaining the workshop. They work as resource person for the facilitators, providing reference material and guidance ensuring that the AEW is on pace with the class. The faculty liaison may often suggest strategies and even occasionally coming to the rescue when facilitators feel overwhelmed.

The faculty liaison agrees to meet weekly with the facilitator. For their cooperation, the participating faculty receive information from the facilitator about troublesome points and the guarantee of a student core who are keeping up with the material, working problems, and developing the self-confidence to participate actively in the class. Several instructors have commented positively on the intellectual liveliness that the workshop participants create in a class.

The Facilitator

Student facilitators can be of special value to the workshop and programs are encouraged to invest the effort to develop them. These facilitators are students and have confronted these same issues or classes (particularly the one they are facilitating) very recently in their own lives and so can provide a unique insight.

When trying to create a friendly environment a student peer is less intimidating. The facilitator's primary role is to make sure that the discussion is focused on the positive while at the same time

ensuring that incorrect or unproductive procedures are recognized and eliminated. It is the facilitator's responsibility to develop worksheets that follow the workshop model and have problems that are sufficiently challenging. The facilitator should discuss and obtain approval of the worksheet during their weekly meeting with the liaison.

During the course of the workshop, the facilitator does *not* directly answer a student's question. Only when several students are unable to resolve the question does the facilitator step in. The student should be asked a guiding question to help provide him/her greater insight. The facilitator should model the behavior of the "ideal or conscientious" student, by asking those questions which a superior student would ask of him/herself. These questions should model the struggle with a problem. This type of questioning provides an objective analysis and should help to identify the parts of the problem that are understood and then to determine where the difficulty actually lies. These questions should not be judgmental. The facilitator must be careful to avoid this type of questioning. In order to do this, the facilitator needs to have a good grasp of the content, but must be able to understand the challenges of the material from the participants' perspective.

The AEW facilitator is not expected to lecture or to re-teach. The students are expected to have done the readings necessary to be prepared and have at least attempted the homework. It is a good idea for the facilitator to periodically take a look at the notes of the students while they work through problems. The facilitator may and should ask a student who continually is not prepared to leave, as this is disruptive to the other students.

HOW TO STRUCTURE A WORKSHOP-- KEY ELEMENTS

Although the structure of the workshop may vary slightly in order to keep students' attention, each workshop should have the same elements.

Quick Preview

A conscientious student reads the text before lecture and previews a chapter before reading and so that they know what to expect when reading or hearing the lecture. This preview of material ensures that their time is effectively spent and that they do not waste time on divergent tracks. The review allows the students mind to switch gears and focuses the student on the upcoming tasks. This also helps to give the student a heads-up on information critical to understanding the course content. Therefore, it is important to give the students participating in the workshops the conceptual framework for a workshop from the beginning.

The workshop should begin with a very brief student discussion about the concepts or rules that the workshop will focus on. Students should have done the reading and/or discussed it with the instructor beforehand. For example, if the focus of the AEW is on a physics topic – e.g. tension in strings, a quick review of Newton's laws should take place. The students should be asked to define them and give an example problem of how they apply to tension in a string.

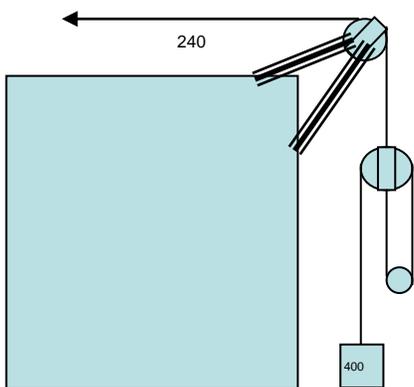
The Challenge Problems

The problem sessions might start off with a challenge problem in order to immediately foster dialogue among the participants. The challenge problems are critical to the success of the workshop; they force critical interactive participation. The problem should be sufficiently

challenging that the students will need to debate how to approach the problem, without becoming overly frustrated. Because the problem is difficult for everyone, no one loses respect for an unsuccessful attempt within the group. Simple problems tend to encourage the more skilled student to not take the AEW seriously and to sit back, relax and zone out with a false sense of mastery; while those who struggle may not speak out on the simple problems because of feeling overshadowed.

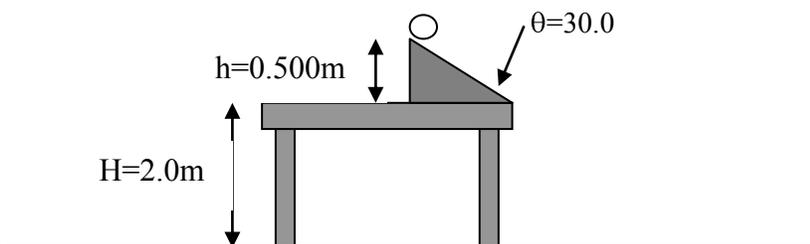
Whenever possible, the problem should incorporate a number of concepts. However, in the situation where this is not possible, a very difficult one will suffice. Below is an example of a challenge problem midway in a first-semester physics class. This is a very detailed problem, but one the students can easily solve if they understand basics of force diagrams and Newton's Laws. The solution for this problem is in the appendix along with a sample worksheet.

Patrick designs a pulley system to lift a 400lb weight off of the ground. He knows that the maximum force that he can pull is a force of 240lbs. Can he lift the weight? What is the maximum weight that he can lift?



Let's look at one more example of a Challenge problem, again midway into the first semester physics material.

A block of mass $m=2.0$ kg is released from rest at $h=0.500$ m from the surface of a table, at the top of a $\theta = 30.0$ degrees incline as shown in figure 2. The frictionless incline is fixed on a table of height $H = 2.0$ m. How far from the table will the block hit the floor? How much time will have elapsed between when the block is released and when it hits the floor?

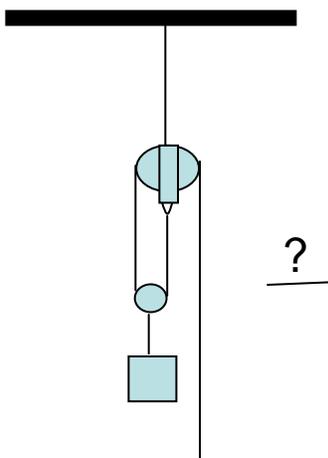
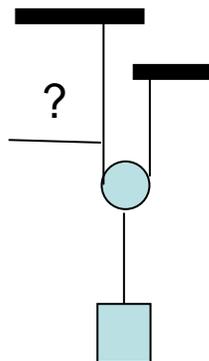
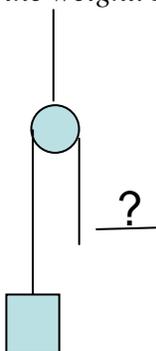


This problem requires that the student understand the concepts of the kinematic equations, and potential energy, as well as Newton's Laws.

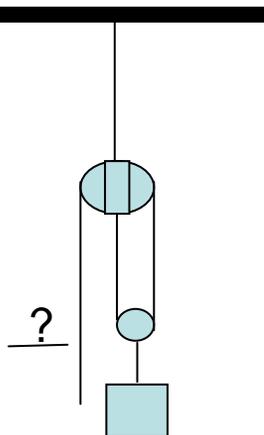
Foundation Problems

The foundation problems should be chosen to be similar to the homework problems that will need to be worked but should also provide the background to solve the challenge problems. Depending on the type of challenge problem, the foundation problems may be the challenge problem broken up into simpler segments. In the case of the pulley example above, the students must be able to understand the corresponding foundation problems. The example of a series of foundation problems shown below are basically the challenge problems broken up into simpler components with some showing a minor change. The students would be asked to discuss and solve each one.

A 100 Newton load is supported by a man. He uses a frictionless pulley system to help support the weight. How much force does the man have to exert in order to hold the weight in place?



How much force must be exerted on the cable to hold the 400 lb weight in place?



Review the Challenge

Now that the students have the foundation, it is important to go back and review the challenge problem and see if they are able to solve the problem or one very similar to it. At this point there should be some real excitement generated in the workshop. It is also very important to note that if you have a very good workshop going the students may be able to solve the challenge problem right off the bat. If that is the case, then the facilitator should have a number of challenge problems on reserve complete with foundation problems to continue on with very little review of the foundation problem for the previous challenge since it is not needed.

Sample Time Frame for a Workshop

Focus	1-1.5 Hour Time Frame
Quick Review (concepts for the Day)	5-10minutes
1 st Challenge Problem	10-15 minutes
Foundation Problems	10-20 minutes
Review Challenge	5-10 minutes
2 nd Challenge	10-15 minutes
Foundation Problems	10-20 minutes
Review Challenge	5-10 minutes
Total Time	55-100 minutes

The Change-Up

Sometimes you need to a change of pace to bring back some of the energy to the workshop. One fun way to do this is to play “Baseball”. Split the group into two teams. The first team may choose the level of difficulty of the problem (single, double, triple, or homerun). The singles and doubles would be similar to a foundation problem and the triples and homeruns are challenge problems. Place a limit on the number of singles and doubles that they may attempt. Three strikes and you’re out but each team should be doing the problems while the other is “up to bat”.

AEW FACILITATOR'S GUIDE

Creating The Right Workshop Environment

The aim of the workshops is to support students' efforts to excel in their coursework by focusing on their strengths, rather than their weaknesses. Encouraging them is of major importance. The workshop material is aligned closely with the actual course, but is not a substitute for the course or a time to manage homework or provide another lecture to the students. Honors, not remedial, work is the emphasis, but a place must be made to fill in gaps where needed. Thus, the workshop is a very complicated learning environment. Keep in mind that the following ideas intertwine to create the all-important workshop environment. Assess the environment in yours using the checklist in the Appendix.

Long Range Goals of the Workshops

Creating more sophisticated learning strategies that will assist the students beyond the workshop is the ultimate goal. Part of this is the teaching of good study habits, test-taking skills, and group study skills. If the environment is successful, the students will leave the workshop with the skills necessary to establish their own learning communities. As an example, students will form their own study groups for other classes and know how to question each other effectively and feel comfortable in doing so.

The Physical Environment

The physical environment is not irrelevant to the effectiveness of the workshop. The optimal situation is an area equipped with tables and whiteboards or chalkboards that make it easier for collaborative work, with room between them for easy circulation. There should be plenty of writing utensils.

Creating Community

Setting Up Expectations Early

Experience shows that setting explicit expectations and defining roles for students at the very beginning makes things much easier later on. Discuss the nature of the workshop activities, the respect that should be present in student/student and student/facilitator interactions, student responsibilities, attendance, evaluation and other policies or practices. See Appendix for an example of a student/facilitator contract.

Building Trust

When a facilitator is able to show the workshop students that he or she really cares about their progress, a big step toward building trust is made. Truthful praise of student accomplishments is another such component. A facilitator should be on the lookout to catch students doing something well, but not giving unmerited praise. Maintaining proper confidentiality is also a mechanism for building and maintaining trust.

Social Environment

The workshop must have a social component, as well as an academic one. This makes it different from a class and more enjoyable for the participants. Initially, it may be very difficult to get the students into the thought process that the workshops utilize. Several methods help

create the required social atmosphere. Informality of the workshop procedures should be nurtured. Allow student conversations to stray away from the subject once in a while. Once the students become familiar with each other and become comfortable in the workshop, the social environment will automatically exist and flow. The facilitator must manage the group dynamics at times--an individual participant must not be allowed to control the workshop. Instead, it is most beneficial for the students as a group to control it.

Use of Icebreakers

In the first few workshops and as needed in the semester, icebreakers can be an easy tool to building group processes. In the beginning, they can create an atmosphere that is relaxed and enjoyable, although work is taking place and thereby set the stage for the whole term. A few specific icebreaker examples are in the Appendix.

Getting to Know the Students

Obviously, some students need more encouragement than others and all students have different needs. This is the reason why the facilitator must get to know the students by showing a genuine interest in each student.

Dealing with the Students as Individuals

During a workshop, a facilitator should take time to have a brief conference with each of the participants, to help understand the student's needs and situation. Additionally, temporarily removing a student from the group may be necessary to create an environment in which she/he can speak freely. A situation for this may be when a particular student needs additional work.

Personal Information

Although all personal information learned about the participants is confidential and should be discussed with others only as required to act in the student's behalf, it is acceptable for the facilitator to compile a phone list of the students in the workshop. When giving their numbers, the students should indicate if they object to having their number circulated among the workshop. Then the list can be copied and distributed to each workshop participant. This helps students seek each other for assistance and to form study groups.

Dealing with Student Problems

The facilitator can handle some student problems. These may include school policies or minor academic problems. But, remember that the counselor is trained to deal with student problems, and facilitators are not. If the individual student communicates a serious problem to the facilitator, then the facilitator may give support but should be careful not to advise. The student should then be directed to the counselor. The facilitator should immediately see the counselor to be sure that the student gets the proper assistance. Also, it may be appropriate for the facilitator to arrange a counseling appointment for a student.

Fostering Communication

Ask, Rather Than Answer, Questions

The facilitator should make this part of his/her standard practice in the workshops. At the beginning of the quarter, he/she may tell the students that they are going to be made to think for

themselves. When a student asks a question, ask one back. If they ask whether they are doing a problem correctly, the facilitator may ask how they may be able to tell. As the facilitator circulates, he/she should be asking questions about what students are doing or how they came up with a certain answer. It is very important to do this when the students are correct in addition to when they are incorrect. Initially, they may be defensive; and assume something is wrong or take it personally. But once they know the purpose of such questioning and have learned not to take it personally, it leads them to be more confident and objective about their work. It is a real measure of success when they can effectively question each other. Also, increased confidence and self-esteem are other benefits from this type of encouragement. It teaches students to question themselves, question others, and to think for themselves. You may learn, as a result that the course instructor reports receiving more intelligent questions during class. The long-range results are invaluable when combined with other workshop techniques.

Circulating Throughout the Workshop

A facilitator will try not to spend a significant amount of time with one individual or group unless it is necessary. Circulating allows the facilitator to get an overall view of the workshop that may identify problems. Remember, it may occasionally be necessary to take an individual off to the side to work with him/her personally but intense work with one student should probably be arranged to occur outside the workshop time. Also, circulating gives the facilitator exposure to the maximum number of students. Most of the time it is beneficial to keep a low profile when moving among the students. This forces the students who are not near the facilitator to seek assistance from another student.

Sitting With the Students

When working with a student, sit next to her/him. This satisfies two goals. First, it allows for the facilitator's to keep a low profile. Also, when assisting students, sitting with them prevents feelings of being looked down upon. This gets to the students' level and creates a non-threatening environment.

Have a Positive and Optimistic Attitude

There is a difference between a positive attitude and an optimistic attitude. The former is necessary to establish a non-threatening environment. For example, it is not appropriate to shame a student. The fear of appearing ignorant will significantly interfere with the students' learning process. Search for positives in students' work and behavior, and praise them for it. An optimistic attitude is a positive one. But, it carries much further. If the facilitator is an optimist, a student can constantly be encouraged and challenged ("If you want an 'A', then strive for it," "The answer may be incorrect, but the method is right. Try the next problem utilizing the same techniques." or "It is a difficult problem, but you have the tools to solve it.").

The Shy or the Aggressive Student

The facilitator may need to take an active role to integrate a shy student into the workshop. If he/she understands a concept, refer other students to him/her. On the other hand, the aggressive student should be managed carefully, too. If the student is a heckler, he or she may need to be reminded of the expectation of respect in the workshop.

Being Aware of Student Opinions and Thoughts

The facilitator should take advantage of all opportunities to obtain the students' ideas and opinions about the workshop and worksheets. This can be accomplished by listening or by asking questions throughout the semester. These techniques are a supplement to the formal evaluation forms.

Content

Course Material and How To Study It

Remember that the workshops are not a time for lecturing. The beginning of the workshop is ideal for presenting an example problem, clearing up misconceptions, or helping students review the material. Also, the facilitator may need to prompt the students to summarize concepts, to explain short cuts, or to introduce alternate techniques. Otherwise, a majority of workshop time should be spent on the worksheets. The workshops are also ideal for exposing students to efficient study habits and test-taking skills. Many students are not aware of the various techniques associated with studying: e.g., knowing when to move to a new problem when at an impasse on the current one, or knowing not to rely excessively on answer keys or textbook examples. Also, emphasize the important techniques of integrating individual and group study by example in workshop activities.

Emphasizing Efficient Study Habits and Test-Taking Skills

Often, a student will confront a problem by working alone and referring to the text. If a barrier is encountered, the student works until too frustrated to continue. The facilitator can play an active role in increasing the effectiveness of the students' study habits. Warn the students of the dangers of spending the majority of the studying time in isolation. One of the many test-taking skills is the ability to manage time. The facilitator should be familiar with the various techniques and should utilize any program to learn them.

Keeping the Workshop Interesting

During a quarter, keeping a workshop interesting requires a broad range of tactics. This is where a strong personality can be helpful. Be humorous. Keep their attention. Strive for varying approaches to the students, and varying approaches to the worksheets. Utilize any method that keeps the workshops from becoming a boring routine. Make the material interesting by creating humorous examples and worksheet problems. Also, sketches can be made to tickle the funny bone. Challenging the students and creating friendly competition among them can be used at times to keep the workshop interesting.

When Handing Out the Worksheets...

At the beginning of each workshop, explain what the worksheet covers. This helps the students get their minds in gear. If worksheets are given to students without any explanation, the students may tend to feel overwhelmed and they may become discouraged. Then challenge them to master the material covered in the worksheet.

Basic Workshop Structure Should Not Be Remedial

Within the workshop, the work should not be remedial. Rather, it should consist of methods that encourage students to think in a systematic manner and should build on the foundation that is

developed in class. This enhances the ways students approach problem solving and helps them to understand principles. Challenge them personally and with worksheet problems.

Student Preparation

As a standard practice, the facilitator should encourage the students to be prepared for the workshops. This should include having studied the relevant material and completed the corresponding homework assignment. The facilitator will find that this is an ideal to aspire to, and which students may have difficulty complying with at times.

Dealing with Homework

As stated earlier, the students should do their homework outside of the workshop--ideally, prior to the workshop. But, when necessary, a homework problem that several students are having trouble with can briefly be dealt with in the workshop. Remember to make the students think. Do not simply give answers or tell students how to do something. Ask questions and utilize the time for effective learning. Give hints, but do not solve the problem. Be sure to avoid those problems that are to be handed in for credit so that the workshop will not be seen as providing unfair advantage to workshop participants. You, however, may wish to help them solve problems that are similar in nature.

Encouraging Students to Use the Instructor's Office Hours

The facilitator should continually encourage the students to use the instructor's office hours, especially when a problem arises that is beyond the scope of the facilitator. Many students never see the instructor outside of class; they may not feel comfortable with the idea of facing the instructor one-on-one. The facilitator may consider requiring the students to meet with the instructor. The meetings can assist with the students' practice and use of techniques learned in the workshop, such as knowing how to question and how to be confident. Finally, the visibility shows the instructor that the student is making an effort.

Managing The Worksheets

Designing worksheets and problems will consume much of the facilitator's time. Properly designing them will use the problem-solving techniques necessary to understand the general material. It will also improve the ways students solve problems. **Remember that the worksheets are normally not completed by the students.** When developing the problems and worksheets, the facilitator should not worry about the students finishing. They should be told that while they are not expected to finish the worksheets, they have met the challenge if they do. It is encouraged to show the worksheets to the faculty liaison before the workshop.

Stretching the Students' Capabilities

Worksheet problems should be designed to stretch the student's capabilities—to make them think. By challenging the students in this manner, the facilitator can stretch their capabilities without alienating them with problems that are too difficult. On the worksheets, consider listing the sections covered, so student can refer to the text later.

Integrating Review Material with New Material

The most effective problems a worksheet can use are ones that integrate previously covered material into current material. These are problems that are based on a current section but that contain techniques learned previously. By tailoring the problems in this manner, the facilitator forces the students to review constantly as they progress through the quarter. This also supplies

more advanced problems of a type that tend not to frustrate students. Most text problems are limited to the material on a specific section.

Using Word Problems

Use word problems as much as possible. Compared to problems where all information is directly given, word problems require the students to use efficient problem-solving methods and to think for themselves.

Creating Foundation Problems from More Difficult Ones

One of the most valuable techniques in creating effective initial problems (problems designed to introduce a new subject) is to break up medium or difficult problems into several easier ones. This gives the students useful insight into the construction of difficult problems and assists them in learning systematic methods for solving them. If the problems are strategically designed, they can be a valuable teaching tool.

Setting Up Problems without Solving

Worksheet problems that require the students to partially solve them can be a good choice. Usually, this type of problem is most valuable when material is newly introduced, or when completing the entire problem is tedious or time consuming. Determine from the instructor if and how much a calculator should be used.

Solutions to the Worksheet

Solutions to all worksheets should be supplied to the students at some point. The facilitator may find it most convenient to hand them out during the meeting following the respective workshop while the material is still fresh in the students' minds. Don't postpone handing out the solutions until just prior to an exam--the students get little to no use out of them at this time.

Sample Exams and Review Worksheets

Special worksheets may consist of sample exams and review worksheets. When giving a sample exam, individual work should be required. Afterwards, the students may compare. This gives students an idea of areas of individual weaknesses. If prior worksheets properly integrated review problems with new problems, the sample exams will be very effective. Otherwise, a review worksheet may be more appropriate and can be treated as a normal worksheet. Be sure that the students have frequent opportunity to work problems under a time constraint--like a quiz or exam. In this way they gain valuable insight into their ability to function on a test **before** they have lost points.

Description Of Duties Outside Of Workshop

Organizing and Preparing Material

The facilitator is responsible for organizing and preparing worksheets or other activities for the workshops. A short list of resources to help the facilitator create problems and activities is: other students, the instructor or other faculty, the director or other MESA staff, textbooks, past collections of worksheets, or old exams.

Meeting with the Instructor

The facilitator maintains regular communication with the course instructor whose course has been selected as the primary target of the workshop. This assists the facilitator in developing relevant problems and materials for maximizing the effectiveness of the worksheets. Also, the instructor can indicate the areas with which the class is having difficulty, sections that may be emphasized at exam time, and areas that were not sufficiently addressed in class because of time restraints. These meetings are also valuable to the instructor, who gains exposure and insight into the program.

Meetings & Other Training

Attend facilitator meetings on your campus and appropriate off-site trainings that are offered.

Administrative Work

The facilitator is responsible for some record-keeping--monitoring attendance, administering evaluations and collecting student test grades. Important qualities are staying current and organized.

Using Evaluation Forms

Evaluation forms should be given to the students at an identified time during the term to obtain their anonymous input about the workshops. This can be done at mid-term and/or at the end of the term. See example in Appendix.

Workshop Attendance

Keeping accurate and up-to-date attendance is part of each workshop meeting. It allows the facilitator to identify students who are often absent, tardy or early to leave, allowing an inquiry to be made into any possible problems. See example in Appendix.

Exam Scores

It can be an effective practice to request exam scores from the faculty member for each of the workshop students, as well as the mean score for the given exam so that comparative statistics can be compiled.

Containing adapted examples of facilitator-led training materials produced in a for-credit course at Cal Poly.

SURVIVAL TIPS FOR FACILITATORS

As facilitators, you are key figures who insure a workshop's success. The following are steps that you can take to keep the workshop program functioning smoothly.

Getting hired/paid

- See to make sure you are on payroll; this should occur two weeks before start of term.
- Submit timesheets on time.

Getting the workshop off to a good start

- Obtain textbook and whatever supplementary references are available from the MESA Director.
- Set workshop tone at first meeting; begin promptly and include some content-related material whether actual class has met or not.
- Collect and exchange telephone numbers of members of workshop willing to share this information. Include yourself.
- Play "Name Game" or other activity to reinforce all knowing each full name.

Preparing for Workshops

- Prepare worksheets or related activities. Worksheets normally include handouts of solutions.
- Arrange for coordination/sharing of effort between co-facilitators.
- Solve **all** worksheet problems before workshop!
- Make photocopies (back-to-back, please)
- Maintain notebook of worksheets and solutions; notebooks of previous worksheets available

Keeping things running smoothly

- Meet with course instructor(s) regularly.
- Attend all facilitator meetings,
- Check your mailbox in each week: timecards and announcements are distributed there.
- Obtain board markers, other supplies from the office.
- Notify the office if you have to miss a workshop or facilitator's meeting.
- "Sell" next term's workshops.
- Welcome visitors.

People Resources

- Academic: Pertinent faculty & Lecture Instructor, tutors, other students
- Administrative: MESA Directors
- Personal/Counseling: MESA Staff & Counselor

THE ART OF QUESTIONING

Carlos Gaytan

The ability to communicate effectively is probably one of the most important traits that a facilitator can have. It goes hand in hand with technical competence, since, without the means of sharing your ideas, no one else can benefit from the advice or lessons that you have to offer. This short paper will describe some of the philosophy that I have implemented while trying to communicate ideas to students in a workshop environment. Much of this philosophy is basic to the workshop goals and is already being followed. My main hope is that facilitators may read this and generate new ideas of their own.

One of the most important tenets of workshop philosophy is that a facilitator is not there to "give" the students answers. It's better to sort of "guide" them to the answer, letting them use the concepts that they've picked up to that point and apply them to the problem at hand. This is usually quite hard. It's a lot easier to just answer the question or work out the problem and then go to the next one; however, you'll probably have to repeat the procedure again through the whole set of problems. A better approach is to ask THEM questions. These questions should be structured so that the answers will lead in the general direction of the solution to the current problem. Also, they should be straightforward enough that at least half of the students can answer them readily. Some examples of these "guiding" questions appear below:

- What is it that you are trying to find out?
- What variables are you given in this problem?
- Can you relate these variables to the quantity that you're trying to find with a formula that you know?
- Have you seen this kind of problem before? If you have, what is similar or different about the previous problem?

It is very important that the students not get discouraged if the answers that they provide don't seem to be on target, or even close. ANY reasonable answer is a good answer; it's the facilitator's job to interpret that answer in such a way that it leads the discussion back to finding the appropriate solution.

Never say simply, "No, that's not right." Always explain why that answer is not the best one. If it's appropriate, you can even hint at the better answer by saying something like, "But, what if you said...instead?" where you fill in the blank with something related to what the student had said previously. The main point is to keep the students interested in the discussion and on the trail to the solution.

Another important workshop ideal is that the students run the workshop; it's their show. The workshops function very much under the team concept, and it's vital that everyone gets into the action. The role of the facilitator in this context is to get and keep everyone involved. One good way to do this that relates to communication skills is to get students to answer other students' questions. Invariably, some students will know to do certain

problems while other students will know how to do other problems. If you notice that a particular student has got a particular problem down while others seem to be struggling with it, let that student show the others how he or she would do that problem, either on the board or in a group. Structure is not that important; the key is that the method explained by that student is indeed valid. If you know of another way to solve the problem, throw that in as well. (This is probably the only time when it is all right to "give" the students an answer.) Usually there is a student in the workshop who is particularly sharp; take advantage of this person. Let him or her explain some of the more challenging problems. This will boost his or her own self-confidence, let the other students see that a fellow student can in fact solve a particular problem, and will make your job easier.

The worksheet that is created for use during a workshop session can be an excellent way to communicate ideas. The problems on the worksheet should be challenging but accessible enough to maintain the students' interest. Be creative; make up fun problems that involve familiar places or characters. The advantage of this is that a familiar situation lends itself better to discussion than does a dry, routine problem that doesn't allow very well for visualization. You may argue that the student will usually not find such inventive problems on a real test and will be frustrated by a more formal presentation of the same types of problems. But one of the main purposes of the worksheet is to thoroughly expose the student to the concepts first presented in the classroom, and to subsequently become a source for questions and comments. I believe this is more easily accomplished by presenting an interesting worksheet.

During the workshop session, you may find that some students are falling behind the others in doing the problems. There is one school of thought that believes that all the students should remain on the same problem until everyone has finished. I've found that it's easier to let those students who are more comfortable with the problems move ahead and then call on them to help those still working on a previous problem. In this way we can keep everyone going at their own pace. These students are in the greatest danger of getting frustrated. It is in this situation that facilitators must use their communication skills to best advantage. Note that the student is having problems; try to head off frustration from becoming too intense by providing that student with increased attention. Almost invariably there is more than just one student who is having trouble with a particular problem; if this the case, then the group as a whole should brainstorm and try to find a solution. The main thing to avoid is to keep the student from feeling helpless, from falling into the "I can't do it" mentality. By using the guiding questions described earlier, the facilitator can make the student realize that he or she CAN do the problem and others like it.

The important thing to consider when facilitating a successful workshop is to be "fully on" all the time. That is, be completely prepared for anything when you step through the door of the room where the workshop is held. As far as communication goes, be ready to improvise; come up with new examples to clarify a concept right off the top of your head. Don't hesitate to abandon a planned course of action if a better one seems to be more appropriate. Keep everyone involved all the time, and more often than not, you'll find the workshop will be very successful.

ICEBREAKER IDEAS

The icebreaker serves as much more than a way to insert informality and fun into the workshop. Initially, and this period may last into the semester, it is a way to speed group development through the stages referred to as forming, norming, and storming thereby getting sooner on to performing! It is also a good place to reinforce workshop values and behaviors such as respect, trust, and cooperation. Icebreakers are participative—everybody will get a chance to share their insights, experiences, and feelings with increased understanding and appreciation for each other as a result. A highly effective workshop environment requires participants to open up to freely admit what they do not understand and to allow their reasoning to be challenged by peers. In order to be successful in creating this atmosphere, the students must feel very comfortable with each other in a relatively short time. Judicious use of these ‘icebreakers’ can further this process considerably.

Variations on the Name Game

When the workshop is just getting started and people do not know each other, it is easy to find out a lot of information fast with this exercise. Go around the room, asking people to give their names, majors, first-choice transfer school and other more interesting facts about themselves such as favorite food, or color or music, birth order, pets. Depending on the number of people involved, you can determine how many facts you will require each to provide about themselves. After the first person has spoken, the second person must give his own information, and then recapitulate that of the first person. The third person gives her own information, and then repeats that from the first and second person, and so on.

Team Building Exercises

This is a good first-day activity since it promotes teamwork and creative thinking. Use a small ball, hacky sack or other small item that is easy to throw and catch. Form a circle outside or in a room with plenty of space. Have students begin to throw the ball in a random order among each other, calling out the first name of the student to whom they are throwing it at the same time. Ask the students to throw the ball only to somebody who has not yet received it. In this way, a cycle will be formed that includes all students. Then ask the students to remember this exact order, but to increase the speed that the ball goes around. Ask them to increase it more and more. Finally, challenge them to improve their speed to less than ten seconds. Ask them to find a way the ball can come into contact with the same students, in the same order, but in the fastest possible way. Then let them devise something—they should be able to figure out a way to satisfy the requirements in a time that is just a couple of seconds.

Two Things

Ask the students to look in their pockets, purses, backpacks, or on their persons for two things that say something about who they are. Then go around the group and have everybody describe what they found and why it represents something about them. This is a good one for the facilitator to join in with.

Secret Sides

This activity is best done after the workshop students have worked with each other for some weeks, and know each other a bit. Ask everyone to write down something about themselves that they think nobody in the group knows about them, to fold the paper and hand it in. Then the facilitator reads the various pieces of paper, and writes them on a board. Then have students ‘vote’ as to which of them they think belongs to each “secret side.” Leave the mystery unsolved until the end of the workshop, at which time the truth can be revealed, by the facilitator, or by the students themselves.

Forcing a Group Problem-Solving Effort

For some students, working with others to solve a problem feels uncomfortable, or at least unnatural. This group exercise is set up so that each member must participate. It requires a little more advance preparation on the part of the facilitator: Take a problem in the subject matter of the workshop and split the given information up into three to four parts and write the parts on index cards. Depending on the size of the workshop, make several sets of these problem cards for the same problem. Then divide the students into groups of 3 or 4, depending on how you have divided the problem. The instructions are that nobody can show or give up their card to anyone else, although they can discuss their ‘clue’ with the others in their group. Let the groups attempt to solve their problems for a set amount of time. Have a short de-briefing discussion about what they experienced in the way of teamwork from this exercise. Remind students how much of their work as professionals may demand problem solving that parallels this artificial situation.

The Human Knot

This exercise is good for groups of 6 or more. Everybody gathers in close and holds hands with two different people. Then without breaking contact between hands, the group attempts to unloop the ‘knot’ so that eventually everybody is holding hands in a big circle.

Training

In order that facilitators are comfortable with the use of icebreakers, include many examples throughout the training cycle of the term. When they have experienced them as participants, it will be easier for them to make use of them within a workshop.

QUICK CHECKS TO ASSESS WORKSHOP CLIMATE

- Does each participant know first and last names of every participant?
- Is each participant engaged in working with others for some significant portion of the time?
- Are the groups in which students work fluid from session to session? (no cliques?)
- Is the room noisy with student conversation most of the time?
- Generally, does the facilitator direct students to each other rather than ‘tutor’ them him or herself?
- Are the participants enjoying learning the content?
- Does the student rather than the facilitator hold the pencil/chalk/pen?
- Does the facilitator generally keep his or her “pronouncements” to 10 minutes or less?
- Are the individual and group workshop goals clear, current and understood and accepted by all?
- Do the participants regularly talk about how to be more effective students?
- Is attendance monitored?
- Does the worksheet reflect the course concepts for the week?
- Is the worksheet balanced—complex enough to challenge the fastest student yet instructive to the less confident?
- Is the facilitator meeting regularly with the course instructor?

Academic Excellence Workshop *Facilitator and Student Contract*

Facilitator

As the workshop facilitator assigned to your class, I agree to provide the following to the students involved:

- I will provide a positive and collaborative environment.
- I will attempt to keep all students engaged and involved in the workshop.
- I will be prepared for each meeting. I will have reviewed course material and will have solved all the problems on the worksheets provided.
- All worksheet problems will be relevant and appropriate.
- I will meet weekly with the course instructor and will have developed the worksheets in conjunction with the instructor.
- I will make appropriate recommendations and referrals to the MESA Director.
- I will not discuss your situation with anyone other than the MESA Director and the course instructor.
- I will be honest about my abilities.

Facilitator Signature

Date

Course

STUDENT

As a student in the workshop I understand and agree to the following:

- I will not speak negatively of others and will do my best to work collaboratively.
- When I am able, I will assist other students in the workshop to understand the material.
- I will come prepared to the workshop having at least attempted my readings and homework.
- The workshops are a working environment and that I will not be able to simply get answers.
- I understand that the facilitator does not teach or lecture in the workshop.
- Outside of the workshop, I will meet with the course instructor on homework issues before seeking the help of the facilitator.
- I understand that specific homework problems will not be done in the workshops.
- If I have not been attending classes, I may not be able to attend the workshops without the Director's approval.
- I understand that I will be asked to leave a workshop if I am disruptive or continually unprepared.

Student Signature

Date

Course

Academic Excellence Workshop

Minute Paper

Date: _____

Main topic presented in today's workshop is: _____

Two ways I might use this (or two ideas of interest to me) are:

1. _____

2. _____



Date: _____

Main topic presented in today's workshop is: _____

Two ways I might use this (or two ideas of interest to me) are:

1. _____

2. _____



Date: _____

Main topic presented in today's workshop is: _____

Two ways I might use this (or two ideas of interest to me) are:

1. _____

2. _____