The New English Teacher
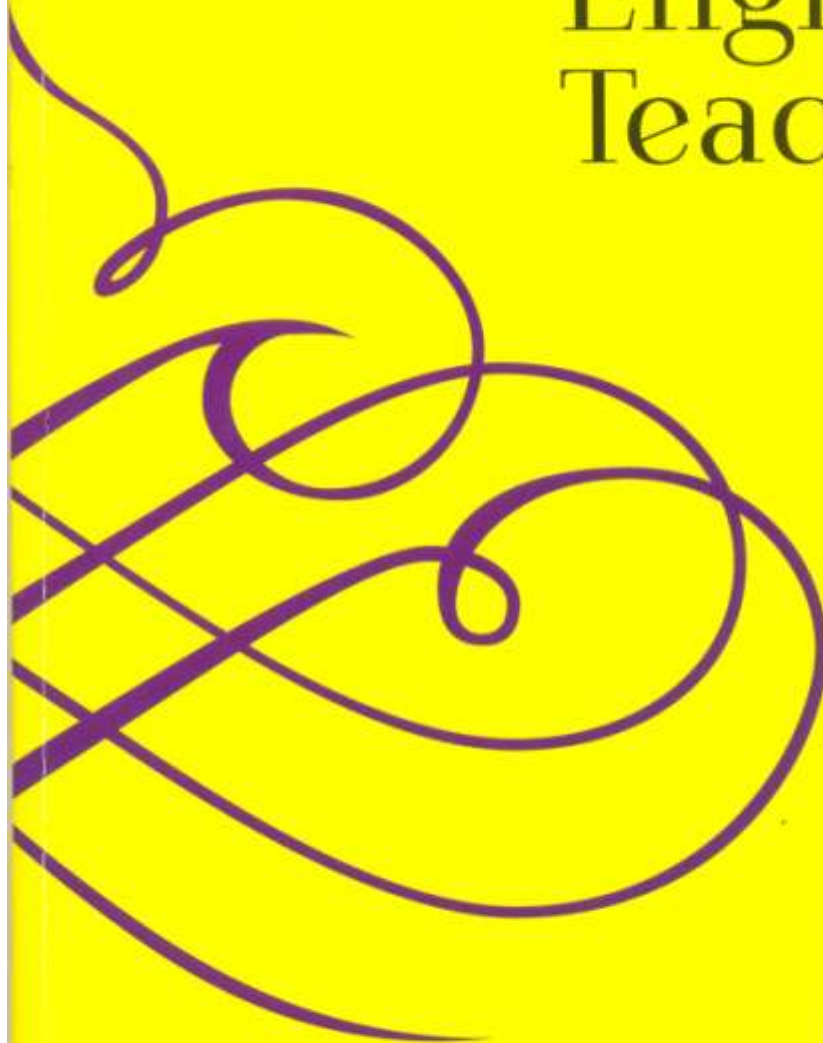
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CONTENTS

DEVELOPING A TEACHER-TRAINING PROGRAM IN INDONESIAN CONTEXT

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Abstract

The challenges that are facing language teachers of the new millennium are many and complex. Sometimes they find themselves at the crossroad of so many changes that are rapidly taking place. They face difficulties in adjusting themselves to these new challenges. Therefore a training program for these teachers is needed. To achieve maximum result from a training program, it is important to set up the program in local context. This paper, in the light of this issue, examines various theoretical issues in designing a teacher-training course. Highlights are given to the types and components of an effective program. Sample of a training program is also provided.

Key Words: professional teacher, teacher professionalism, teacher training

บทคัดย่อ

ความท้าทายที่กำลังเผชิญหน้ากับครูสอนภาษาในสหัสวรรษใหม่มีมากมายและสลับซับซ้อน บางครั้งครูสอนภาษาพบการเปลี่ยนแปลงมากมายที่เกิดขึ้นอย่างรวดเร็วและประสบปัญหาในการปรับตัวเข้ากับความท้าทายใหม่ๆ เหล่านี้ ดังนั้น การฝึกอบรมสำหรับครูจึงเป็นสิ่งจำเป็น เพื่อให้บรรลุผลสูงสุดจากการฝึกอบรมโครงการฝึกอบรมในบริบทท้องถิ่นจึงเป็นสิ่งสำคัญ บทความนี้ศึกษาปัญหาทางทฤษฎีการสอนต่างๆ เพื่อการออกแบบหลักสูตรฝึกอบรมครู โดยจะเน้นที่ประเภทและองค์ประกอบส่วนของหลักสูตรที่มีประสิทธิภาพบทความนี้ได้นำเสนอตัวอย่างของหลักสูตรการฝึกอบรมด้วย

คำสำคัญ: ครูมืออาชีพ วิชาชีพครู การฝึกอบรมครู

The foreign language teaching profession today is faced with a rapidly changing student population, nationwide education reform, and the development of national standards for foreign language learning. Tedick and Walker (1996) list a number of factors that place a number of new demands on foreign language teachers such as: (1) the cultural, socioeconomic, linguistic, and academic diversity in today's student population, (2) the variety of reasons students have for learning foreign languages and the different study techniques they apply, (3) the emphasis on collaborative learning and student self-directed learning, and (4) the emphasis on technology for language learning and teaching.

It is not an easy task for language teachers to adjust to these demands. However, as teachers are at the heart of the educational process and have a major impact on student learning and school success, it is essential that teachers be trained to meet these new challenges.

Setting up a good effective training program for in-service teachers in Indonesian context is crucial and challenging. This paper thus tries to address some important points that should be taken into consideration before setting up a teacher-training program for Indonesian teachers: (1) What is the appropriate type of a teacher-training program?, and (2) What does an effective training programme consist of?

PROFESSIONAL DEVELOPMENT AND TEACHER TRAINING

Teacher development is a term used to describe .a process of continual intellectual, experiential, and attitudinal growth of teachers. (Lange, 1990, p.250). Training is a prerequisite for this development. It is essentially the beginning of a process of preparation for professional teaching, including all aspects of teacher development. This point of view is expressed by Wallace (1990, p.88) in figure below:
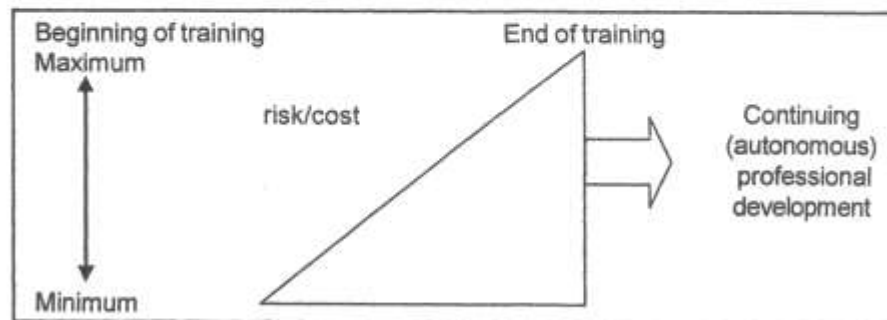
TYPES OF TRAINING PROGRAM

Typical training programmes for in-service teachers tend to focus on institutional aims. Such programmes attempt to correct the teachers' deficiencies in their attitudes, knowledge and skills (Kumar, 1989, p.35). These programmes are driven also by managerial decisions about the teacher's role in the school and a prioritising of the type of teacher development that would best meet the needs of the institution (Kyriacou, 1996, p.11). This type of programme can be considered what Nunan (1989, p. 111) labels as the "top-down approach" in which some 'experts' design and deliver a package which consists of curriculum plans, syllabus outlines and methodological procedures.

On the other hand, according to Kumar (1989, p.36), a training program that emphasizes the personal growth and development of an individual teacher will cater to the perceived needs of the teachers. To this, Nunan (1989, p.111) proposes that the content of the training programme should be developed through a process of consultation and negotiation with the participants. Stroupe et al (1998, p.19) also feel that training practices should take into account the teachers' needs and wants. They characterize effective teacher development programmes as those that (1) show a sensitivity to the perceived needs of English teachers, and (2) reject the assumption that a 'one size fits all' approach to training is the most effective way of helping teachers to develop their English language teaching abilities.

From my point of view, the latter type of training programme could be more effective for Indonesian schools and universities than one that attempts to correct deficiencies. First, this kind of programme can create a non-threatening environment for the participants since this programme applies a more humanistic approach, in the sense that each teacher is valued as an individual who has his/her own needs, experiences, etcetera. Second, this type of programmes is more appropriate to be applied in Indonesian context. In Indonesian culture, seniority and the extent of teaching experience are still highly valued. Junior teachers are required to respect the senior ones in any circumstances since these senior teachers are considered as having more experiences. Thus, junior teachers, who happen to be course trainers for the training program held for senior teachers, may feel awkward and worried if they are asked to deliver the training using the top-down approach. This is because they somewhat are asked to "correct" the trainees' "deficiencies". By implementing the bottom-up approach, the junior teachers as the trainers will feel more comfortable and the senior teachers as the trainees will feel unthreatened.

COMPONENTS OF TRAINING PROGRAM

In the light of using a needs assessment as an essential component of a training program for in-service teachers, Shaw (1995, p.103) feels that teacher needs could be translated into what the trainees need to know and what skills they need to have. These knowledge and skills will form the main content of the training program. Such a program is considered a traditional one according to Head and Taylor (1997) as it mainly concerns knowledge of the topic to be taught, and of the methodology for teaching it. The emphasis is on classroom skills and techniques while affective factors, although important, are often neglected.

Other concepts for teacher training programme however, focus on three major points: personal qualities, knowledge and skills which Anderson (1989, p.9) calls, 'trademarks of teachers'. To this, Freeman (1989, p.36) designed a descriptive model of teaching constituents as shown in figure below:

Awareness triggers and monitors attention to:

Attitude:
A stance toward self,
activity, and others that links
intrapersonal dynamics with
external performance
and behaviors

Skills:
The how of teaching:
- Method
- Technique
- Activity
- Materials/tools

Knowledge:
The what of teaching:
- Subject matter
- Knowledge of students
- Sociocultural/institutional context

Knowledge Transmission

Freeman's (1989) model was adapted by Maley (1996: 19) in his "triangle of forces", as displayed in figure below:

Knowledge
About Subject
Learning
System
Students
Self

Skills:
Language
Pedagogical
Technical
Interpersonal

Attitudes:
Attitude
Authenticity
Atmosphere
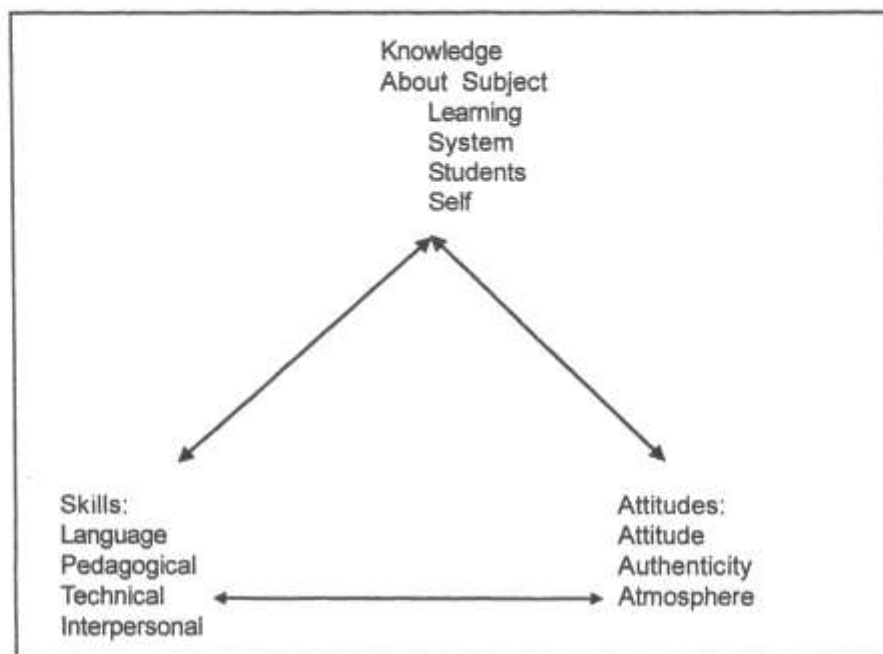
Having examined the theories above, this paper proposes two major components of a training program, namely (1) knowledge, skills and attitude that need to be acquired and (2) existing beliefs, principles and practices.

Components that need to be acquired

There are three components that need to be included in an effective training program, namely knowledge, skills and attitude.

Knowledge

Over the years, many scholars have tried to summarize and classify the type of knowledge they feel teachers should possess. Kyriacou (1996, p.8) suggests that all teachers must have adequate subject mastery as this indicates a relationship between subject knowledge and teaching performance. Maley (1996, p.19) is of the same opinion when he states that teachers should have knowledge "about their subject, about the learning process, about the

system in which they find themselves, about the students they teach, and about themselves".

For language teachers and those who are required to teach their subjects using a foreign language such as English, it is obvious that knowledge of the foreign language is important as this knowledge will enable them to use the foreign language confidently in the classroom. As Doff observes,

> A poor or rusty command of English [or any other foreign languages] undermines the teacher's confidence in the classroom, affects his or her self-esteem and professional status, and makes it difficult for him or her to follow even fairly straightforward teaching procedures such as asking questions on a text.

> (Doff 1987, as cited in Cullen, 1994, p.465).

Skills

Besides possessing the various types of knowledge discussed above, teachers need to also have developed a range of pedagogic skills which enable them to teach effectively (Kyriacou, 1996). These pedagogic skills are necessary to communicate and mediate the teachers' knowledge to their students. According to Shulman (1987, p.17), these skills involve "those dimensions of teaching regarded as essential to the repertoire of any teacher regardless of subject". In this sense, teaching skills involve aspects such as: "preparing students for new learning, presenting learning activities, asking questions, checking students' understanding, providing opportunities for practice of new items, monitoring students' learning, giving feedback on student learning, reviewing and reteaching when necessary" (p.17). In short, skills which constitute the "how of teaching" include "the teaching methods, techniques, activities, materials, and other tools" (Freeman, 1989, p.36). In Maley's (1996) terms, these components are referred to as "classroom and self-management skills, technical skills and interpersonal skills".

In my opinion, all the pedagogical skills mentioned above are necessary in all training programs especially those which are held in Indonesian universities. There are at least two reasons to support this point of view. The first one is related to the Indonesian classroom situation itself. On average, one Indonesian class consists of 60-70 students. Due to the large class size, it is not an easy task for Indonesian lecturers to conduct lessons in a student-centred way as this involves trying to deliver the lesson aims in a short space of time and motivating the students in such large classes. Pedagogic skills, such as those mentioned by Freeman (1989) and Maley (1996), are definitely needed for these tasks. Furthermore, most teachers in Indonesian universities

are not trained in pedagogic skills as many of them are not graduated from the Teacher Training Faculty. Many of these teachers have been employed immediately after completing their university education and have not undergone any teacher training whatsoever. Thus, training programs which include pedagogic skills will be relevant for Indonesian university teachers.

Attitude

The notion of 'attitude' is difficult to define, though most people immediately recognize and respond to it when they encounter it. This may be because attitudes are different from knowledge and skills. As Maley explains,

> Knowledge is largely 'declarative', that is, we can state explicitly what we know. Skills are largely in the domain of 'operational' knowledge, that is, we can demonstrate expertise by skilful performance. Attitudes, by contrast, are in the domain of 'tacit knowledge'; that is, knowledge we may not even be aware we possess, still less be able to describe or explain.

(Maley, 1996, p.21)

For Maley (p.20), attitudes deal with "what teachers reveal to their students about their own feelings towards their work and towards the students themselves" and "what teachers reveal about their feelings towards themselves".

According to Karavas-Dukas (1996, p.194), the investigation of teachers' attitudes in professional development programmes is important as it can help in establishing the most appropriate kind of support that is needed. This kind of investigation is especially useful for example, when teachers are faced with the introduction of any pedagogical approach, innovation or policy change in the classroom. Here, teachers may need to revise, refine, or change attitudes which may not be compatible with the principles of that teaching approach, innovation or policy change.

Existing beliefs, principles and practices

A teacher development program should apply an approach that views teacher development as a process that involves both the acquisition of the above components and the examination of teachers' existing beliefs, principles and practices. This is based on the idea that all teachers who join the training program actually have already had their own professional knowledge

about what constitutes good classroom practice. Here, professional knowledge takes the form of the teachers' "personal and subjective philosophy and their understanding of what constitutes good teaching" (Richards, 1998, p.51). James (2001, p.4) observes that this type of knowledge takes shape and develops as "a result of individuals' experience as learners and teachers, and as a result of their previous training".

In a study conducted by Adams and Chen (1981), it was found that the teachers surveyed tended to be comfortable with the teaching strategies they had employed and often saw no real reason to alter them. Thus training programs which often offered innovation in teaching may be rejected if the teachers (trainees) felt that their existing knowledge, skills and attitudes were threatened. To this, Hedge and Whitney stated that,

> Taking on new approaches, acquiring new skills and modifying routines may well be resisted if there is a feeling that previous, often long-standing approaches, skills and routines are somehow being judged as inadequate or inappropriate. This sense of devaluation, if unattended by those responsible for teachers' programmes, can seriously affect the potential for positive outcomes from in-service courses.
> (Hedge and Whitney, 1996, p.123)

In short, it can be inferred that in order to ensure that training programmes are effectively conducted, training sessions should value participants' existing knowledge, skills and attitudes.

SAMPLE OF TEACHER TRAINING PROGRAM

In light of the issues outlined above, this section provides a sample on how a teacher training program incorporates the course participants' existing knowledge, skills and attitudes as well as their future needs and wants. The major issue addressed in this training program is the student-centered approach. This issue was selected because I notice that many Indonesian teachers are still not aware of the meaning of student-centered approach and the various types of activities that they could conduct in the leaner-centered classrooms. These teachers often felt overwhelmed by the sudden introduction of this new teaching innovation and automatically felt resistant to it.

The suggested program focused on three aspects: a) awareness among teachers about the skills necessary to conduct a learner-centered lesson, b) procedures on how to conduct the student-centered activities in the class-

room, and c) learning theoretical principles involved in the design and delivery of student-centered activities. In this program, the trainers would acknowledge the importance of having the student-centered approach and encourage the course participants to adopt a more eclectic vision of teaching and to draw on a broader range of techniques to create greater opportunities and motivation for learners to engage in communication in English. The trainers would avoid giving participants the impression that the training was prescriptive in nature, that the student-centered approach was the most effective approach, and that the participants' existing teaching practices and experiences were being undervalued. Rather, it was hoped that through demonstration, reflection, and opportunities for practice, participants would begin to become more aware of the possibilities of the new approach. Such training approach seems eminently preferable in the Indonesian context, as it respects the value of both 'old' and 'new' approaches to teaching.

The schedule of the suggested training program is as follows:

Day 1:	
08.00 - 08.30	Registration
08.30 - 09.30	Session 1: Getting to Know Each Other
09.30 - 10.00	Coffee Break
10.00 - 11.30	Session 2: The Principles of Student-Centred Approach
11.30 - 12.30	Lunch
12.30 - 14.00	Session 3: Teaching Ideas for Student-Centred Approach Classrooms
14.00 - 14.30	Coffee Break
14.30 - 16.00	Session 4: Effective Lesson Plans
Day 2:	
08.00 - 09.30	Session 5: Applying Our Learning (Teaching Practice), Part 1
09.30 - 10.00	Coffee Break
10.00 - 11.30	Session 6: Applying Our Learning (Teaching Practice), Part 2
11.30 - 12.30	Lunch
12.30 - 14.00	Session 7: Wrap-Up
14.00 - 14.30	Coffee Break

In session 1, the course participants are basically invited to describe their own professional background, experience, and day-to-day realities at their classrooms. This session also provides an opportunity for the trainers and trainees to find out about each other's background, experience and expectations regarding the training program.

Sessions 2 - 4 are developed within a framework of 'pre', 'while' and 'post' stages. In pre stages, the trainees are asked to refer back to their cur-

rent teaching experiences. In while stages, the concept of the student-centered approach is being introduced. Here the participants become 'students' and they are exposed to various student-centered activities. Following each stage, an opportunity was provided for participants to reflect, and give and receive feedback on what they had just experienced with regard to the how and why of the teaching procedure. Such reflective practice is beneficial for teachers for a number of reasons including furthering self-awareness and knowledge through personal experience, gaining a clearer understanding of their own actions and the reactions they provoke in themselves and in learners, and utilizing their current and past knowledge and experiences to generate new or revise existing techniques and concepts (Thiel, 1999). Sample of materials used in session 3 can be found in the appendix.

In sessions 5 and 6, participants are requested to prepare their own mini-lesson by applying procedures or activities previously discussed and demonstrated to their chosen textbook material. A chance for participants to explain their mini-lesson to other course participants is also included to enable all participants to share ideas as well as discuss their teaching context and previous experiences with their peers. Importantly, participants would have a record of practical examples that they could use for referral on return to their workplace.

Session 7, a wrap-up session, includes opportunities for the course trainees to look ahead, discuss how they can bring their training knowledge to their teaching, and how they can continue developing their professionalism. This final session also provides (1) the Q and A section in which any ambiguities can be clarified, and (2) the feedback section in which the participants can reflect what they like or dislike, what is helping them to learn, or what is not. This wrap-up session helps the trainers obtain valuable information about the teachers' perceptions of what happens in the program which may help to improve the quality of future training programs.

It is important to remember that this training program is not the end of teachers' professional development. In fact, it is just the beginning of a continuous often life-long process.

CONCLUSION

Foreign language teachers today obviously require a combination of competencies and background. In addition, they have to be able to cope with ongoing teaching innovations. This may be unprecedented in their preparation

as lecturers. Therefore, strong professional development is critical. To ensure that teaching innovations could be implemented successfully, a more bottom-up approach should be carried out. The teachers for example might be encouraged to constantly participate in training programs which would equip them with better knowledge, skills and attitudes. The training programs themselves should value the existing beliefs, principles and practices of the participants. If the administrators of the programs become more conscious about the present state and needs of their (teachers) participants, the training programs will surely be implemented successfully.

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Appendix:
Session 3: Teaching Ideas for Student-Centered
Approach Classrooms

Procedure:

Stage 1:

- Trainer distributes Handout 3.1.
- Trainer asks the participants to read the article.
- Trainer leads a general discussion based on the article by asking questions such as "What activities will be described by the author?"

Stage 2:

- Trainer asks the participants to work in pairs.
- Trainer distributes Handout 3.2 - Handout 3.10. Different pairs or groups will receive different handouts.
- Trainer asks each pair to read their handout (article).
- Trainer asks each pair to summarize the content of their article and discuss what they think about the teaching idea written there.
- Trainer asks each pair to report to the whole group.
- Trainer leads a general discussion based on each pair's article by asking questions such as "Are these good teaching ideas?" or "Can these activities be applied in the your classes?".

Stage 3:

- Trainer asks each participant to think about his/her most successful teaching activity.
- Trainer asks participants to work in group of 4.
- Within their group, the teachers share their experiences and have a group discussion to get the fuller picture of each successful activity.
- Trainer asks the group to choose their favorite activities which they can use in their classrooms.
- Trainer invites some participants to share their favorite activities to the whole group.

Stage 4:

- Trainer leads a discussion about why certain activities are considered successful. This discussion may elicit a set of principles of effective teaching ideas as well as the types of student-centred activities that can be applied in the classrooms.

Comments:

Throughout this session, the participants are encouraged to look at

others' experiences and exploit the 'sometimes-overlooked' treasure of their own teaching ideas. Thus, they will not depend mainly on the trainer's explanations. In addition, I hope that the science article provides English teachers with a stimulating, general educational perspective.

Reference:

Timberlake, K. (2000) *Using student centred learning strategies in the chemistry classroom*. Retrieved July 12, 2003, from Timberlake's Chemistry Website: http://www.karentimberlake.com/student-centred_classoom.htm.

Handout 3.1

Most of us who teach chemistry grew up learning chemistry from the lecture method. For many years, I never doubted that it was the way to teach chemistry. Today the lecture system is the preferred teaching style used by 89% of science professors. Indeed, lecture is a comfortable format for many instructors and a non-threatening one for students. It is low cost, easy to control, and an excellent method for organizing course content. However, many of us are becoming more aware that during lecture students are not actively engaged with the topic, they do not seem to listen for very long, and their retention of concepts is minimal. Studies show that students are not attentive 40% of the time they are in class and that although attention is high for the first 15 minutes, it declines rapidly until the final 10 minutes of class. About 10 years ago, I began to hear about student-centred teaching strategies, but I saw little of it at the college level. Now that is beginning to change. Don Paulson, Chemistry, California State University, reports that the use of active-learning strategies from 1994-1998 provided an average retention rate of 75% for one year of organic chemistry compared to 38% when he used the lecture method. In addition, he reports that students who learned with the intense active-learning approach in lecture did significantly better in both retention and GPA in the laboratory class.

Student Centred Strategies

In a student-centred classroom, students are encouraged to participate actively in learning the material as it is presented rather than being passive and perhaps taking notes quietly. Students are involved throughout the class time in activities that help them construct their understanding of the material

that is presented. The instructor no longer delivers a vast amount of information, but uses a variety of hands-on activities to promote learning.

Handout 3.2

Mini-Lectures

When I learned in a workshop that student attention span in lecture wanes after about 15 minutes, I began to repackage my lecture material. Eventually I had a series of PowerPoint slides or CheModules that I utilize as mini-lectures. In class, the students work out of a syllabus in which I included the Power Point notes. I do not include the solution slides in the notes, but show them after students have given their answers. The same modules are available on my web site for review and do include the solutions. In the classroom, I use a simple media cart with the presentation system on the top level along with my laptop. A VCR on the middle level allows me to show videos full screen through the presentation projector.

Handout 3.3

Clarification Pause

A quick way to add some active learning to a classroom is to take a lecture break every 15-20 minutes. This means that I stop talking for about 2 minutes while students discuss the ideas with each other, check and clarify their notes, and ask questions. I circulate about the room and help them review the ideas. This is a quick way to add student-centred learning that does not require prepared worksheets or other materials.

Handout 3.4

Shared Paragraph

During class or at the end of class, students are given a few minutes to write a short paragraph in their own words that explains that major ideas discusses that day. They share their paragraphs with other students, and give feedback to each other. They may turn the paragraphs in as they leave class. I return them the next day and discuss any topics that were not clear. I obtain instant feedback in their thinking and students learn to summarize information.

Handout 3.5

Fish Bowl

At the beginning of class, each student writes a question pertaining to class content on a 3" x 5" card and places the card in a container. I draw out some cards and read the questions to the class. Students are expected to provide answers. The discussion reviews topics that were unclear and gives students who would not ask a question in front of their peers a chance to present a question to the instructor. Students learn to assess and articulate what they do not know. And I obtain feedback on the level of difficulty of various topics I present.

Handout 3.6

One-Minute Paper

Students are asked to write a short paper or paragraph for one minute. This might be about a section in the chapter or about a concept we just worked on. They are turned in and I quickly look them over. Students learn to clarify the ideas in the reading or lecture material. The paper provides feedback to the instructor on student's ability to understand the concepts in the text. Here is an example of a one-minute paper:

Carbon and oxygen react according to the following equation: $C + O_2 \rightarrow CO_2$

Reactants

Select the container (A or B) that represents the molecules after C and O_2 react. Write a one-minute paper to explain your choice.

When I collected the papers, I discovered that although students could do a mechanical calculation of a limiting reactant problem, they did not understand the concept. This result prompted more discussions.

Handout 3.7

Worksheets for Group Work in Class

      Within each set of PowerPoint notes in the syllabus, I integrate worksheets for collaborative learning during class. Students' work in study teams applying the concepts immediately and problem-solving together. Learning is enhanced when students become engaged in the processing of information. Here is an example of one page of a team worksheet done by groups of students in class.

Worksheet 4.3

      1. Determine the formula and name of the ionic compound containing the following ions:

Ions	Formula	Name
Na^+ and O^{2-}		
Al^{3+} and S^2		
Ba^{2+} and Cl^-		
K^+ and P^3		

      2. Why is $Na+$ named sodium ion, while Fe^{2+} must be named as an iron (II) ion?

      3. Complete with formulas and names:

	Cl^-	S^{2-}	N^{3-}
Li^+			
Mg^{2+}			
Fe^{3+}			

      4. How do you determine the charge of the positive ion in CuO and Cu_2O?

      As students work together in the classroom, they think and use the language of chemistry. They use peer instruction to fill in gaps in math and chemistry for each other by providing immediate feedback and correction to each other's ideas. I've found that peer instruction helps students begin to formulate questions about what they don't understand and begin to model successful problem solving for their peers. One may argue that learning chemistry may not always be so enjoyable, but if too much of it is not, the student will often leave the class.

Handout 3.8

Peer Presentations

When we are ready to review several chapters for an exam, I hand out a review worksheet or assign a different questions from the text to each study team in the classroom. I have done this with classes up to 200 students. Students manage to find a way to work together regardless of the shape of the classroom or lecture hall. They discuss the problem and write up a solution on a transparency. After 15 minutes, one or two students describe their solution to the class using an overhead projector. I am always impressed with the ability of students to articulate their work and to teach a class. I interject a thought or clarification as needed, but most of the time it is a student who asks a question or makes a suggestion. As long as students are given the time to prepare their solution, the peer presentation is a positive experience that strengthens the self-confidence of many students.

Handout 3.9

Group Homework Projects "ChemWorks"

In the process of changing to a more student-centred classroom, I found that I said less but taught more. For example, I no longer work problem after problem in class as students snooze. Now students work out problems together using group problem solving homework worksheets I call "ChemWorks". They must get together outside of class with their study teams and work on these homework sets. They have different ways to do this. Some do all the work together. Others assign problems to work on their own and then get together to go over the work. Others email back and forth on their computers. Because I do not cover all the material in class, they must learn from their textbooks and other resources. At the beginning of each exam (I give 5), one ChemWorks paper is turned in for each study team and each member receives the same grade.

Small-group learning has the benefit of engaging students, sharing teaching and learning, connecting more learning styles, developing higher-order thinking skills, helping students to reflect and increasing success and retention. By working in groups, students learn to take more responsibility for their own learning, which is a process that is important in today's Internet world.

Handout 3.10

Tips for Adding Student-Centred Learning in the Classroom

If an instructor wants to move toward a student-centred classroom, I have some tips on getting started. Begin using active strategies the first day and start small. Students will know that your course will be different from the traditional lecture format. Clarify procedures and provide a non-threatening environment. Discuss the appropriate behavior for students when they work in groups. Experiment with various activity to find those that are most comfortable and workable within ones own teaching style. Adapt the various activities to fit your class. Be prepared to find out what students do no learn.

There will be mixed reactions from students but I have seen students start a semester thinking this was a ridiculous way to teach and end the semester begging me to teach their next class. Since I started using more interactive techniques, I have become keenly aware that students do not learn the same ways; in fact, they have vastly different ways of processing information and learning how to think.