# The Coaching of Teaching

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Credit: Chris West

The eight members of the English department of Lazarus High School in Sacramento, California, are considering new teaching strategies for use in some of their courses. The model of teaching they are now studying is Synectics (Gordon, 1961), designed to stimulate metaphoric thinking. Several members of the department think Synectics will be useful both to encourage creative writing and in the study of fiction and poetry.

The English teachers began their exploration by reading William Gordon's book, *Synectics*. Later, an expert on the strategy came to the school, demonstrated it several times, and held discussions with the teachers. They also saw a videotape of Gordon explaining the theory behind Synectics and visited a school in Stockton where teachers have used Synectics for the last two or three years. Then, based on Synectics, they planned minilessons in creative writing, poetry analysis, and the use of metaphor in Ionesco's plays. Each teacher practiced the teaching strategy several times with the other teachers; and, finally, in teams of two, they began to try it out with the most able students in their elective creative writing classes. One team member taught while the other observed and offered constructive criticism; then they switched places. Sometimes they taught together. Each practiced several times with the "coaching partner" present to reflect on progress and to offer suggestions about how to improve the next trial.

Then, still working in teams, they began to use Synectics in a few of their courses when it appeared the strategy would be most productive and likely to succeed. Not surprisingly, they found the hardest part of using a new model of teaching was not learning what to do as a teacher but teaching the students to relate to the model. For example, part

of the Synectics strategy involves asking students to generate "personal analogies" by "being a tennis ball, dinosaur, lawnmower, or toothbrush." Some students were puzzled by the instruction to "be a toothbrush and describe how you feel and what you think about your users." It took time for them to "tune into" the procedures and feel comfortable with them. The Synectics model also asks students to share their writing publicly, an uncomfortable procedure for some of them.

As time passed the Lazarus team found it useful to reread parts of Gordon's book and revisit the teachers who were more experienced users of Synectics. They were fortunate to obtain the consultative services of a Synectics expert for a day. She reviewed the theory and gave them tips for practicing and coaching one another.

The Lazarus team is studying alternative models of teaching (Joyce and Weil, 1980) and is using training procedures that virtually guarantee the successful implementation of almost any approach. The elements they use include:

● Study of the theoretical basis or rationale of the teaching method

● Observation of demonstrations by persons who are relatively expert in the model

● Practice and feedback in protected conditions (such as trying out the strategy on each other and then on children who are relatively easy to teach)

● And, finally, coaching one another as they work the new model into their repertoire, providing companionship, helping each other learn to teach the appropriate responses to their students, figuring out the optimal uses of the model in their courses, and providing one another with ideas and feedback.

Previously, we reported research about the effects of each of these components on the development of teachers' skill in the use of new approaches to teaching and on transfer of an approach into the active teaching repertoire (Joyce and Showers, 1980, 1981). The study of theory, the observation of demonstrations, and practice with feedback—provided they are of high quality—are sufficient to enable most teachers to use a model fluidly and appropriately. Unfortunately, the development of skill by itself does not ensure transfer; relatively few teachers, having obtained skill in a new approach, will then transfer that

skill into their active repertoire and use the new approach regularly and sensibly unless they receive additional information. [1]

However, when the coaching component is added and implemented effectively, most (probably nearly all) teachers will begin to transfer the new model into their active repertoire.

While the major portion of this article is devoted to the coaching process, we want to emphasize that the other components are extremely important if skill is to be obtained. Unless people develop skill in a new approach, they have no chance whatsoever of adding it to their repertoire. Coaching without the study of theory, the observation of demonstrations, and opportunities for practice with feedback will, in fact, accomplish very little.

We do not wish to imply that these components must occur in a strict sequence or need to be separated from one another. Teachers might begin to master a new approach by observing it, examining its theoretical rationale, observing more demonstrations, and practicing with frequent excursions back to theory and further examination. During transfer, teachers may receive coaching while continuing to attend training sessions.

### Attacking the Transfer Problem

The problem of transfer is really a definition of a new stage of learning, which becomes a problem only if it is not recognized. Essentially, once a teaching skill has been obtained, it needs to be transformed when it is transferred into the active repertoire. The conditions of the classroom are different from training

situations; one cannot simply walk from the training session into the classroom with the skill completely ready for use—it has to be changed to fit classroom conditions.

The appropriate use of the skill in context also requires that an understanding of the students, subject matter, objectives to be achieved, and dimensions of classroom management all be under "executive" control—that is, clearly understood so the skill can be used appropriately and forcefully. Successful transfer requires a period of practice of the skill in context until it is tuned to the same level of fluidity as elements of the previously existing repertoire.

To confound things somewhat further, teaching behaviors that have worked well in an existing repertoire may actually impede the use of new models of teaching. We can see this when a teacher who is accustomed to running brisk and pointed "drill and practice" sessions begins to work inductively with students. The swift pace of the drill and practice, the directive feedback to the students, and the ability to control the content and movement of the lesson are at first somewhat dysfunctional as the teacher moves to a more relaxed stance, relies more on initiative from the students, probes their understanding, and helps them learn to give one another feedback. The new teaching strategy seems awkward. Its pace seems slow. The teaching behaviors that served so well before now appear to retard progress. After a while, practice in context smooths off rough edges and the new strategy gradually feels as com-

> # Like athletes, teachers will put newly learned skills to use—if they are coached.

fortable and "in control" as the old one did.

In order for teachers to effectively attack the transfer problem (or, really, prevent it from *being* a problem) three techniques are available in addition to coaching:

● Forecasting the transfer process throughout the training cycle

● Reaching the highest possible level of skill development during training

● Developing "executive control," that is, a "meta understanding" about how the model works, how it can be fitted into the instructional repertoire, and how it can be adapted to students.



Forecasting the process of transfer is extremely important. Teachers need to understand that they cannot simply walk away from a training session and have no difficulty thereafter. Quite often teachers who attend relatively weak training sessions and then try to apply what they have learned report that it doesn't work. *Of course it doesn't work.* With weak training, the product could never work. Even with the strongest training, there is a period of discomfort when using any new skill. Even experienced and capable teachers should be aware *throughout* the training process that they will need to gear themselves up for a second stage of learning that will come after the skill has been developed.

Skill development, of course, is essential. When we think of a model of teaching of average difficulty, we assume that the study of theory will occupy as much as 20 to 30 hours (complex models require much more than that). At least 15 to 20 demonstrations of the model should be observed, using learners with various characteristics and several content areas. Demonstrations are also needed when teachers try the model for the first time, when they introduce students to the model, and when they are learning how to teach it to them. The attainment of competence requires numerous practice sessions. Each teacher needs to try the model with peers and small groups of students from 10 to 15 times before a high level of skill becomes evident. If the transfer process has been forecast, it makes good sense to teachers to want to build the highest level of skill before using the model in the more complex context of the classroom.

The development of executive control has not been a common concept in teacher training. Essentially it involves understanding an approach to teaching, why it works, what it is good for, what its major elements are, how to adapt it to varying content and students—the development of the set of principles that enables one to think about the approach and to modulate and transform it in the course of its use. Executive principles should be included in training content.

The forecasting or transfer, the highest level of skill, and the development of executive control increase the odds that a successful transfer can take place. Together, they set the stage for coaching.

## The Process of Coaching

Ideally "coaching teams" are developed during the training process. If we had our way, *all* school faculties would be divided into coaching teams who regularly observe one another's teaching and provide helpful information, feedback, and so forth. In short, we recommend the development of a "coaching environment" in which all personnel see themselves as one another's coaches. But, in the present context, the primary function of coaching is to assist the acquisition of new elements of repertoire.

The process of teaching involves five major functions:

● Provision of companionship

● Giving of technical feedback

● Analysis of application: extending executive control

● Adaptation to the students

● Personal facilitation.

*Provision of Companionship.* Coaching's first function is to provide interchange with another human being over a difficult process. The coaching relationship results in the possibility of mutual reflection, the checking of perceptions, the sharing of frustrations and success, and the informal thinking-through of mutual problems. Two people, watching each other try a new model of teaching for the first time, will find much to talk about. Companionship provides reassurance that problems are normal. Both persons find that their habitual and automatic teaching patterns create awkwardness when they practice the new procedures. Concentrating on unfamiliar moves and ideas, they forget essential little odds and ends. Companionship not only makes the training process technically easier, but it makes the quality of the experience better. It is more pleasurable to share a new practice than to do it in isolation. The lonely business of teaching has sorely lacked the companionship we envision for our coaching teams. Companionship also helps overcome the tendency to avoid practice during the "awkward" period. Practice *must* begin right after training.

*Provision of Technical Feedback.* In the course of training, our team members learn to provide feedback to one another as they practice their new model of teaching. They point out omissions, examine how materials are ar-

ranged, check to see whether all the parts of the strategy have been brought together, and so on. "Technical" feedback helps ensure that growth continues through practice in the classroom. The pressures of the context tend to diffuse the teaching experience and draw attention away from the new teaching strategy. The provision of technical feedback helps keep the mind of the teacher on the business of perfecting skills, polishing them, and working through problem areas.

Nearly any teacher who has been through a training process can learn to provide technical feedback to another teacher.[2]

The act of providing feedback is also beneficial to the person doing it. The coaching partner has the privilege of seeing a number of trials of the new model by another skilled teacher. It is often easier to see the problems of confusion and omission when watching someone else teach than when attempting to recapture one's own process. Also, ideas about how to use the model are collected through observation. When a group of four or six teachers observe each other regularly while they are trying out a model, they not only give technical feedback to each other, but receive it vicariously while they observe it being given. Together, they produce a number of fine practices that constitute further demonstrations from which they can obtain ideas for the use of the model.

*Analysis of Application: Extending Executive Control.* Two of the most important learnings from the transfer period are figuring out when to use a new model appropriately and what will be achieved as a consequence. Deciding when to use a teaching strategy is not as easy as it sounds; nearly everyone needs assistance in learning to pick the right spots for exercising it. Also, unfamiliar teaching processes appear to have less certain outcomes than do familiar ones. Most of us need assistance in finding out how much we have, in fact, accomplished and how we might accomplish more. During training, coaching teams need to spend a considerable amount of time examining curriculum materials and plans and practicing the application of the model. Then, as the process of transfer begins and practice in the classroom intensifies, closer and closer atten-

tion must be given to appropriate use (Showers, in press).

*Adaptation to the Students.* Successful teaching requires successful student response. Teachers know how to engage students in the instructional processes that are most common; a model that is new to a group of students will cause them trouble. *They* will need to learn new skills and to become acquainted with what is expected of them, how to fulfill the demands of the new method, and how to gauge their own progress. In addition, the model of teaching needs to be adapted to fit the students. More training must be provided for some, more structure for others, and so on. In the early stages, adaptation to the students is a relatively difficult process requiring much direct assistance and companionship.

One of the major functions of the coach is to help "players" to "read" the responses of the students to make decisions about skill training and how to adapt the model. This is especially important in the early stages of practice when teachers are concerned with their own behavior and it is difficult to worry about the students as well.

*Facilitation.* The successful use of a new teaching method *requires practice.* Early trials won't even be close to the normal standard of adequacy. Thus, a major job of the coaching team is to help its members feel good about them-

selves during these early trials. Teachers' lack of interpersonal support and close contact with others in the context of teaching is a tragedy. Coaching reduces this isolation and increases support.

Who should coach? We're really not sure about that. On a practical basis most coaching should be performed by teams of teachers working together to study new approaches to teaching and to polish their existing teaching skills. There is no reason why administrators, curriculum supervisors, or college professors cannot also be effective coaches. But from a purely logistical point of view, teachers are closer to one another and in an excellent position to carry out most of the coaching functions.

### Parallels With Athletic Training
We are beginning to discover parallels between the problem of transfer in teaching and the problem of transfer in athletic skills.

There are going to be so many things in your head that your muscles just aren't going to respond like they should for awhile. . . . You've got to understand that the best way to get through this is to relax, not worry about your mistakes, and come to each practice and each meeting anxious to learn. *We'll generally make you worse before we make you better.*

—Coach Rich Brooks of the University of Oregon to his incoming freshman football players (August 14, 1981, *The Eugene Register-Guard*)

Intrigued by the obvious parallel between Coach Brooks' players and our teachers, we asked him to talk about training and the problems of transfer. The resulting interview revealed striking similarities in the training problems faced by teachers, football players, and their coaches.

Q: Coach Brooks, I'm interested in how you approach skill development in football training and if you consider the transfer of those skills to game conditions to be a separate training problem.

A: Although our players come to us with skills, we reteach and refine those skills as though we were starting from scratch. We teach them our way of doing it, because all those skills have to fit together into one team, they're all interdependent.

Q: Could you tell me your approach to skill development?

A: We use a part/whole/part method. All skills are broken down into discrete steps. We work on each segment, then combine them into whole skills, then into plays, etc., then go back and work on the specifics of skills that are giving problems.

Q: Could you give me an example of a specific skill and how you would approach the training for that skill?

A: The fundamentals of blocking and tackling—bending the knees and striking a blow. All positions need this skill. The trick is to get the player to visualize, to have a mental picture of how it looks and how it feels. Otherwise, feedback isn't effective. We can tell them where it's wrong, but they can't correct it till they know.

Q: How do you get them to "know" what the skill is?

A: We tell them, show them, demonstrate with people and with film, show them films of themselves, have them practice with the mechanical dummy. We have them practice each move separately, then put the moves together, first one, then two, then three— how their knees should be bent, where their arms should come up, where they strike, what all the muscles should be doing. We diagnose prob-

lems with the dummy and keep explaining how it should work, over and over again, in sequence.

Q: In teacher training, we believe that theoretical understanding is important for later performance. How important is it in football skills?

A: It's essential—they must understand how their bodies work, why certain muscle groups in certain combinations achieve certain effects. We never stop explaining.

Q: After they have mastered blocking to your satisfaction with the dummy, then what?

A: Moving from the machine to a live test is difficult; moving from practice to a game is also very difficult. Some people have all the physical ability in the world, all the moves, but can't play because they can't grasp the entire concept, can't fit in with the whole picture.

Q: We have problems with transfer of training too. Do you coach them differently after they've mastered the "basic skills" of football? What will you be doing differently next r..onth after the season has started? How do you work on transfer?

A: Fear of failure is a factor. My job is to create confidence and success situations. Skills have to be overlearned so that they're past conscious thinking. I can't have someone thinking of how to throw a block in a game. They have to be thinking of who and when and what the guy on their left or behind them is doing.

Q: So specifically, how do you coach for transfer of skills to a game situation?

A: First, we re-emphasize skill training for everyone. The second, third, fourth year guys as well—we're always working for improved execution. Then we work hardest on integration, which is just a new kind of teaching. Coaching is really just teaching. We work on confidence by putting them in situations where they can see the improvement. If a guy was lifting 300 pounds two weeks ago and is lifting 350 now, no one has to tell him he's getting stronger.

Q: How does the training break down for your players right now, before school starts?

A: We spend three hours in the classroom and two hours on the field. On their own they spend a couple of hours in the weight room and working out and another couple of hours with the trainers, working out their bumps and bruises.

Q: And after school starts?

A: We'll spend 45 minutes a day in class, two hours on the practice field plus whatever they can manage on their own, after studies.

Q: How does that differ from pro football players' training regimen?

A: They meet two or three hours daily in position meetings, offensive and defensive meetings, watching films of themselves and their opponents, then practice two to four hours a day, depending on their coaches, then their personal work and time with the trainers. They have more time to get into the complexities of the game.

Changing what we do, even slightly, can unbalance the rest of our "game." Whether switching from quarterback to tight end, adjusting the grip on a golf club, or initiating an inquiry procedure for science teaching, the new skill does not fit smoothly with existing practice. The fact that the new skill may have been perfected in parts and practiced thoroughly in simulated conditions does not prevent the transfer problem. Other behaviors must adjust to the presence of a different approach, and the discomfort of this new awkwardness is often enough to ensure a return to the former smooth, if less efficient, performance.

Perhaps the most striking difference in training athletes and teachers is their initial assumptions. *Athletes do not believe mastery will be achieved quickly or easily.* They understand that enormous effort results in small increments of change. We, on the other hand, have often behaved as though teaching skills were so easily acquired that a simple presentation, one-day workshop, or single videotaped demonstration were sufficient to ensure successful classroom performance. To the extent that we have communicated this message to teachers, we have probably misled them. Learn-

ing to use an inductive strategy for the learning of concepts is probably at least as difficult as learning to throw a block properly.

Coach Brooks' description parallels the argument we have tried to make. The task of learning new skills and integrating them, not only as an individual performer but as an entire team; the knowledge that *we'll generally make you worse before we make you better*, and the importance of continuing to try when results are discouraging eloquently describe the transfer process. The necessity of overlearning skills to the point of automaticity if they are to be useful in a more complex setting is reflected in his training regimen. "Executive control" is sought in the emphasis on theory and the classroom work on "plays," "game plans," and analysis of films.

The elements of coaching in teaching—the provision of companionship and technical feedback, analysis of ap-plication and students (or opposing teams), and personal facilitation—are clear in the interview with Coach Brooks. Football players, however, have a built-in advantage when implementing this process; their training is *organized* as a group activity with continuous feedback from coaches. We came away from this interview feeling more strongly than ever that teachers must also organize *themselves* into groups for the express purpose of training themselves and each other and to facilitate the transition from skill development to transfer. **EL**

[1]Transfer of new items of repertoire is more difficult than the transfer of skills that polish or "fine tune" models of teaching in existing repertoire.

[2]Technical feedback should not be confused with *general evaluation*. Feedback implies no judgment about the overall quality of teaching but is confined to information about the execution of model-relevant skills.

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