

WHAT TO EXPECT FROM COACHES

**Brent S. Rushall, Ph.D.,R.Psy.
San Diego State University
and
Sports Science Associates**

Sports Science Associates

COPYRIGHT

This package, or particular items from within, cannot be reproduced in any form or in multiple copies except for the personal use of workshop participants. Any reproduction is a violation of copyright law. Permission to reproduce items by persons or organizations other than workshop participants must be obtained from the copyright owner listed below.

Sports Science Associates

4225 Orchard Drive

Spring Valley

California

USA 91977

[Telephone/fax: 619-469-1537]

February, 2002

TABLE OF CONTENTS

Section	Title	Page
1	Seven Principles for Coaching Advanced Athletes (workbook)	4
2	<i>Seven Principles of Modern Coaching</i> (reprint)	10
3	Features Underlying Effective Coaching Systems (workbook)	22
4	<i>Characteristics of Effective Coaching</i> (reprint)	25
5	Characteristics of Coaching Decline (workbook)	29
6	<i>Diagnose your own decline</i> (reprint)	31

WHAT TO EXPECT FROM COACHES

This workshop is divided into three parts, each having a particular emphasis.

1. Seven principles for coaching advanced athletes.
2. Features that underlie effective coaching systems.
3. Coaching behaviors that indicate a degradation of coaching effort and effectiveness.

1. SEVEN PRINCIPLES FOR COACHING ADVANCED ATHLETES (WORKBOOK)

References: Rushall, B. S. (1985). Several principles of modern coaching: Part I. *Sports Coach, 8(3)*, 40-45; and Rushall, B. S. (1985). Several principles of modern coaching: Part II. *Sports Coach, 8(4)*, 30-35.

1. THE PRINCIPLE OF SPECIFICITY

A. Task Difficulty

Implications

1. The greater the number of departures from the contest action, the less valuable will be the training.
2. "*Exposures*" to skills, rather than many trials to achieve competency, are not sufficient for skill learning or appreciation.
3. Athletes will only get satisfaction, that is, develop an approach response to the sport, when positive outcomes are achieved.
4. There is a need for many more skill trials to produce adequate learning than is commonly believed.
5. Time consuming irrelevant training should be reduced, and replaced with rest and recovery activities.

B. Learning Curves

Implications

1. Current coaching practices rarely allow an athlete to get beyond the "*phuzz*" phase of learning before being exposed to competitions.
2. Many trials are required to get past negative/inadequate learning phase to produce activity enjoyment.
3. Athletes will never achieve skill perfection.

C. Neuromuscular Patterning

Implications

1. Analyze activities in terms of their being "*qualitatively*" the same as those required for the contest.
2. The potential exists that auxiliary training may produce competing and often-dominant response patterns that will reduce or even hinder performance.
3. Return to specific training once a broad and general base of physical capacities and competencies have been established.
4. Technique and psychological control should be the dominant emphases of year-round training rather than conditioning.

2. THE PRINCIPLE OF INDIVIDUALITY

Implications

1. End traditional group programming and instructional strategies.
2. Produce individualized programs for best form of development.
3. Ten features which govern coaching decisions concerning individuality.
 - The amount of time allocated to training depends upon age.
 - Program activities according to the stage of training of the athlete.
 - Activities experienced should be according to history of involvement, not age.
 - Skill level will govern the amount of time allocated to the activity according to specified goals.
 - Complicated skills and games should be allocated more training time than simple activities.
 - The reinforcers derived from the activity should be appropriate for the individual.
 - Forced participation should not be encouraged.
 - Training/teaching environments should be constructed to produce constant training situations for early stages of development.
 - Distractions should be eliminated where possible in learning situations.
 - Instructional modes, such as peer and programmed instruction, need to be developed.

3. THE PRINCIPLE OF SELF-CONTROL

The perception of being in control is a characteristic of elite athletes.

A Model for developing self-control

- i. A successful response is observed.
- ii. Coach: *"Tell me something good about that effort"*
- iii. Athlete: a reply is made.
- iv. Coach: *"That's right"* (pat, hug, squeeze).
- v. Coach: *"Tell yourself things like that each time you do things well"*.
- vi. Repeat this sequence as often as possible until the athlete gives natural complete answers.

Implications

1. Change from coach-dependent individuals to self-dependent (coach-independent) athletes.
2. Adopt training procedures to develop this capacity.
3. A big change is required for coaches to do this (coaching organizations foster the concept of coach-dependency).

4. THE PRINCIPLE OF INVOLVEMENT

The principle of involvement indicates that the higher the goals set for performance, then the greater must be the time and resources allocated to training.

Implications

1. Behavioral goals need to be set to provide standards.
2. Time should be realistically appropriated for goal-attainment.
3. National/state organizers should not establish expectations for performance without providing the resources to make goals realistically attainable.

5. THE PRINCIPLE OF PROGRAM CONSOLIDATION

Decisions surrounding sport program content should be built on sound, valid reasons.

Implications

1. Education programs and continuing education programs are a must for coaching development.
2. Programs should be planned, goal-oriented, and evaluated.
3. Most serious sport activities are 12-month pursuits.
4. Self- and objective evaluation is necessary to provide feedback to promote change.
5. Changes are required to meet the need for procedures, criteria, and methods for:
 - training program content;
 - the evaluation of observable and measurable effects;
 - the timing of program offerings;
 - program documentation; and
 - on-going accreditation schemes and continuing education.

6. THE PRINCIPLE OF SELF-INVOLVEMENT

The history of sports has shown cycles, fads, and popular heroes in the coaching domain. Many examples of failures to adapt have led to the downfall of many individuals, organizations, and nations.

Implications

1. A clear structure of professional ethics and codes of behavior are needed to produce:
 - upgrading of knowledges;
 - learning from other coaches and sports;
 - a contempt for self-satisfaction and justification;
 - a professional approach to planning and the delivery of services; and
 - the seeking of perfection.
2. The realization that what is being practiced today will be wrong/outmoded in the next decade.

7. THE PRINCIPLE OF BALANCED PREPARATION

Biomechanics, tactics, psychology, and physiology affect sport performances.

Implications:

1. Training and coaching must integrate the three sport sciences. To emphasize one over the other is to reduce the potential effectiveness of a program.
2. Coaching programs must be reoriented.

These seven principles propose directions for future changes as individual coaches, coaches' associations, and as national sports organizations.

[This article is a combination of two articles: Rushall, B. S. (1985). Several principles of modern coaching - Part I. *Sports Coach*, 8(3), 40-45; and Rushall, B. S. (1985). Several principles of modern coaching - Part II. *Sports Coach*, 8(4), 30-35.]

2. SEVEN PRINCIPLES OF MODERN COACHING

by Brent Rushall

1. The Principle of Specificity

This principle implies the more a task is practiced, the better the performance. The performance becomes less variable or improves in quality. Research indicates that task repetitions should be as physiologically, psychologically, and biomechanically similar to the sport performance criteria as is possible. Most coaches claim to be aware of this principle yet violate it in training practices. For example, there is a widely held belief that training an energy system through one activity will transfer training effects to another activity even though the locus of movement and skill quality of the acts are dissimilar (MacDougall & Sale, 1981). Another example concerns training for strength. Strength gained in resistance exercises supposedly can be reeducated into skill performance (for example, see Bompa, 1983).

Sale and MacDougall (1981) showed this latter assumption not to be supported by research. A few research items will be reviewed to indicate the importance of, and some factors involved in, skill learning and the relationship to the principle of specificity.

Task difficulty: Kreuger's work (Kreuger, 1947) is discussed to clarify some features in understanding a skill task. Using a ring tossing skill, rates of skill acquisition were determined for the "*same skill*" from different distances that were supposed to be variations in skill difficulty. Figure 1 illustrates the type of results obtained.

The performance curves indicated several interesting features.

1. The most simple of tasks, dropping rings on to a peg from a distance of two feet, was not performed to perfection immediately. Possibly 20 to 50 trials for such a simple task are necessary. Though a coach assumes a task is simple, it still requires reinforced repetitions of the task to ensure it is learned. It should not be taken for granted that learning occurs because something is "*understood*" or because the task seems "*simple*".
2. Using the "*same task*" of ring tossing, but from a greater distance, lowered performance level. The lowering was much greater than the proportional change for distance. In Figure 1, after the same number of trials at a distance that had been increased by four-and-a-half times, performance had been reduced to one twentieth of the previous level. After five times as many trials as the previous task "*difficulty*", performance was still only one tenth of the previous level. Increasing a distance to be thrown or raising a height to be jumped does not increase difficulty to the same degree. Minor changes in a skill requirement vastly alter performance requirements. Coaches should not assume that a change in the demands of a performance automatically would change the difficulty of a task to the same degree.
3. The more difficult the task, the slower was the rate of improvement and the shape of the performance curve.

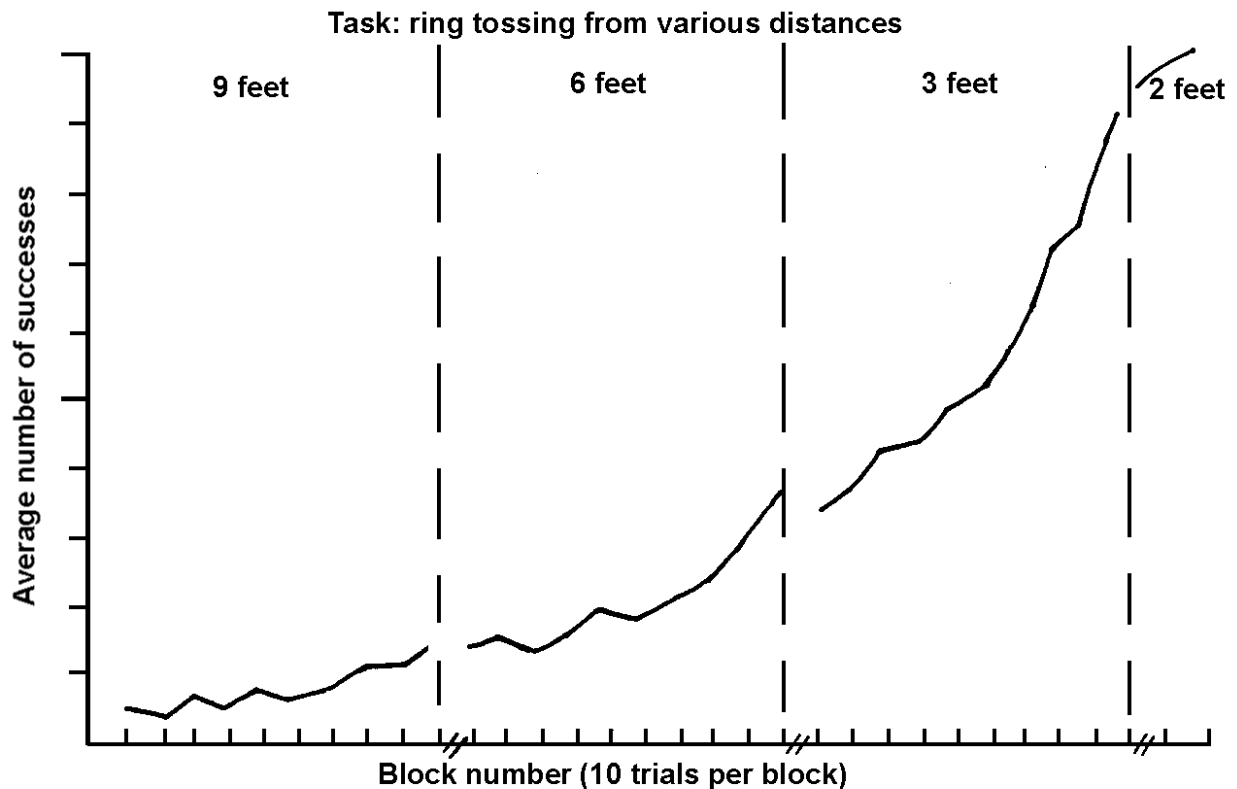


Figure 1

Performance curves for a ring tossing task (adapted from Kreuger, 1947)

A more exact interpretation of these data is that each level of "difficulty" or skill change, was not the "same" skill. Even though the ring toss looked reasonably similar to a naive observer, the performance characteristics under each condition of the experiment indicated that each alteration produced a new task with little relationship between each successive stage. Although simple descriptive similarities existed between each task, they were, to all intents and purposes, different skills.

A number of coaching implications can be drawn from this type of study. In the past, coaches have not realized the complexity and difficulty of physical activities. Changes in a skilled task produce a "new" task. For training content, the greater the number of departures from the competitive skill, the less valuable is the training.

Exposures to difficult skills, for example, the nine-foot distance in the ring toss in Figure 1, produce very slow rates of performance improvement. This means there should be a reduction or elimination of time-consuming irrelevant training. That minor visual changes in skill topography radically alter the nature of a skill performance is not commonly realized. A large amount of "modern" training time is spent in doing auxiliary activities (resistance work, training energy systems, etc.). That time may not be spent profitably if the activities are very different to what is required for a competitive performance. Much of the time consumption in "modern" training is spent doing exercises that have no relevance or specific benefit to the competitive performance. Little useful research has been conducted to evaluate that hypothesis.

The two references cited above for MacDougall and Sale suggest such an assertion. A cynical view of "*modern training*" is that athletes spend large periods of time training on worthless activities that have no affect or carry-over to their competitive performances. The alternative to such a situation would be to train, within reason, only on the activities that are specific to the skill development.

Another coaching implication drawn from this type of research study is that insufficient repetitions, which do not produce noticeable improvement, are not sufficient for learning or appreciation to occur. Many trials are required to achieve a satisfactory level of performance. A single instance of a successful skill execution is not evidence that a skill has been learned. Rather, repetitive executions are required to substantiate that performance improvement has occurred.

The implied coaching procedure is that many more repetitions of skill practice are required in sports than has previously been considered necessary. For training, athletes need many more skill trials than is commonly assumed. A coaching change will provide greater quantities of judiciously applied specific training. Kreuger's data showed that for "*difficult*" tasks, improvement occurred very slowly. Consequently, the volume of specific training is a critical factor for performance improvement in athletes undertaking technically difficult sports.

Performance curves: Improvement curves for skill development are generally S-shaped or combinations of S-shapes, indicate no maximum, undergo various associated psychological stages, and are extremely individual in their characteristics. Figure 2 depicts the general stages and features of a performance improvement curve for a novel skill (Fitts & Posner, 1967; Holding, 1965; Radford, 1973).

The proposal of such a curve is quite controversial from a theoretical viewpoint but, from a practical stance, it is sensible. A number of coaching implications are derived from this stylized depiction. First, current coaching approaches do not allow young athletes to go beyond the initial skill development stages before they are placed in competitive circumstances. One has to question whether that is fair and wise. Second, many trials have to be executed before that athlete progresses past the minimum improvement phase to the point where the activity becomes enjoyable the accelerated improvement portion of the curve which starts in phase 3 of Figure 2. If the learning experience is not carried to that level of performance, the learner believes he cannot do that particular skill. For skill learning, maximum performances are never achieved. Improvement should always be expected even though the improvement rates will slow when high levels of proficiency are displayed.

Performance curves are different for individuals. They vary within each individual for different tasks. When an individual quickly learns one task there is no direct implication that he should learn another task quickly, although it is possible. The coaching implication for this feature is that athletes will develop according to their own particular paces. Training and development should be individualized to account for these individual differences. The degree to which each stage of learning will be predominant, depends upon the amount of specific training for the task at hand. When training includes a lot of irrelevant activity, the performance curves of athletes will be flattened and improvement retarded.

The performance curve developmental stages show considerable practice is needed to produce worthwhile results. Much more practice needs to be planned and provided to produce an

acceptable level and form of learning. This feature will require a radical change in current coaching and sporting organizations. Initial emphasis on sport development should be on skill improvement. The introduction to competitive circumstances should only be entertained when athletes have reached a reasonable level of skill performance ability.

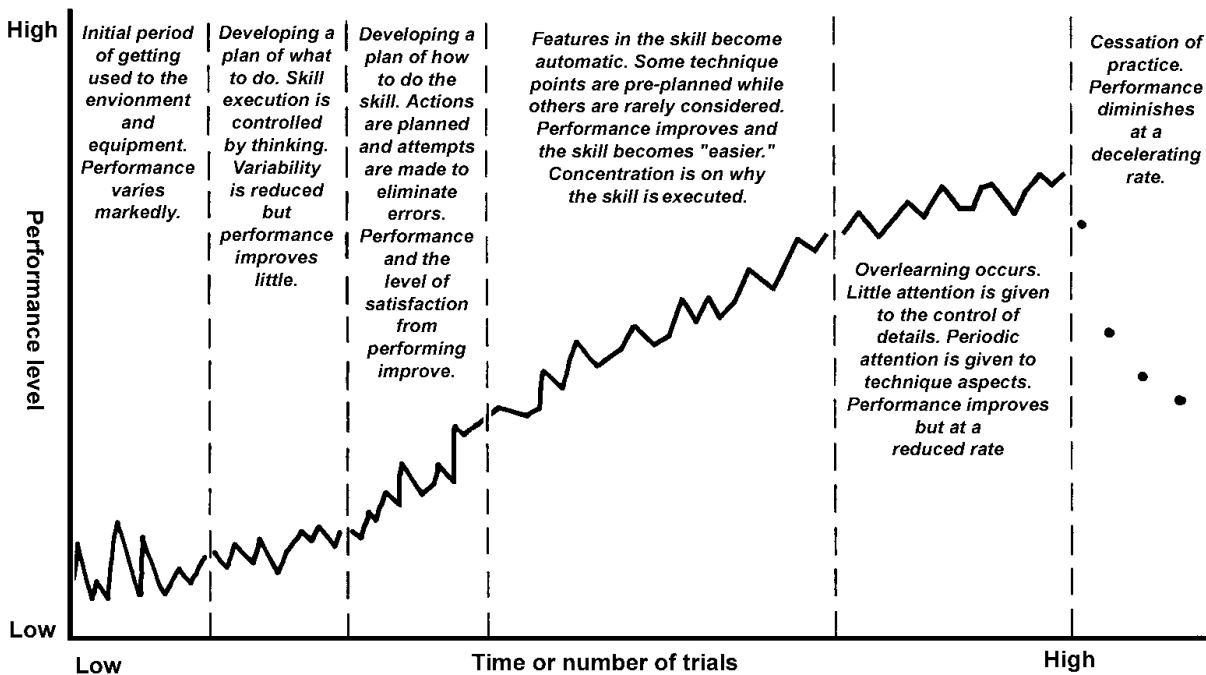


Figure 2
A hypothetical performance curve depicting phases of learning a novel skill. The proportion of phases are not meaningful nor are indicated transition stages. The complexity of the phases and the nature of their changes are important. Such curves are particularly individual.

Neuromuscular patterning: The neuromuscular patterning of skill development is very specific. Slight orientations in the speed of execution of the "same" skill produce totally different biomechanical and neuromuscular organizations within an individual (Councilman, 1968; Pipes, 1978). Many coaches when deciding training activities neglect this feature. Factors such as fatigue even produce alterations in the patterning required to execute the "same" skill (Williams, McEwan, Watkins, Gillespie, & Boyd, 1979).

Even within the realm of strength training, it is apparent that the initial major gains in strength are not through hypertrophy but neuromuscular organization of existing physiological resources (Sale, 1974; Sale & MacDougall, 1981). For those sports where a light to moderate strength component is required -- swimming, rowing, cycling, -- the best way to develop strength is to do the skill at a maximum effort (Costill, Sharp, & Troup, 1980). There is not even much transfer -- about 40 percent -- for the same resistance exercises developed on different pieces of equipment (Pipes, 1978). The need for training is to focus on the specificity of training because of the extremely limited, specific effects of exercise and skill learning. The neuromuscular patterning of skill training may well be the major determinant of performance.

There are several implications of neuromuscular patterning as a feature of the principle of specificity. Training activities should be analyzed to be qualitatively the same as those required

for competition. The potential exists that auxiliary-training activities may produce competing and often dominant neuromuscular patterns which reduce or even hinder performance. Some highly skilled, world record setting swimmers have slowed because they substituted weight training movement patterns in their swimming activity. They swam with weight training patterns of movement. This postulation is very contentious and has radical implications for sport training. An absence of good, experimental research and assessment does not allow a conclusive appeal to authority or past studies for definitive support. The exacting requirements of specific neuromuscular training demand there be a reduction in the use of auxiliary, non-specific activities for training athletes where skilled performance is critical. A forbearer of this feature existed several decades ago when the debate between speed and accuracy factors was popular in the literature of motor learning. Back then, it was realized that accuracy, a neuromuscular control factor, was specific to each level of execution speed, a task factor. This means that with every alteration in the speed of an action, there is a different neuromuscular pattern of movement developed. In essence, if the "same" skill is practiced at ten different speeds, the athlete will be developing ten different skills.

The coaching implications from the discussion on the principle of specificity are clear. The need for specific training focusing on proficiency factors in task execution through the development of feedback, coaching facilities cannot be overlooked. The training emphasis needs to be on biomechanical and psychological control in similar amounts to physiological considerations. Such a concentration would be coupled with a judicious assignment of training volumes and rest periods. Today's coaches still concentrate on physiological training as the overwhelming determinant of sports performance (Rushall & Lavoie, 1983). Such a concentration needs to be changed.

2. The Principle of Individuality

The principle of individuality dictates that coaching-instruction should be structured around an individual's needs and capacities.

Figure 3 depicts three hypothetical performance curves that might occur in a group-instruction setting. Because of the different stages of skill development, each person would require different instructional cues, different skill performance orientations, and would exhibit different rates of skill development. To the uninitiated observer, if instruction were properly provided it would appear to be for three different tasks.

Performance is governed primarily by biomechanical, physiological, and psychological factors. Strengths and weaknesses in each training factor usually can be counterbalanced in today's competitive levels. As athletic performances increase though, the ability to compensate for a deficiency in one area of capacity will become increasingly more difficult. Athletes are very different because of individual variations and capacities in performance factors.

If the performance curve depicted in Figure 2 is applied to a training squad, a real interpretation is that squad members are usually at different stages of the performance curve for the same skill (see Figure 3). The learning processes and instructional requirements will differ considerably between each individual.

Coaching strategies, where all squad members are given the same training program and activities, although easy for the coach to administer and supervise, will be inefficient on the whole and inappropriate for most athletes.

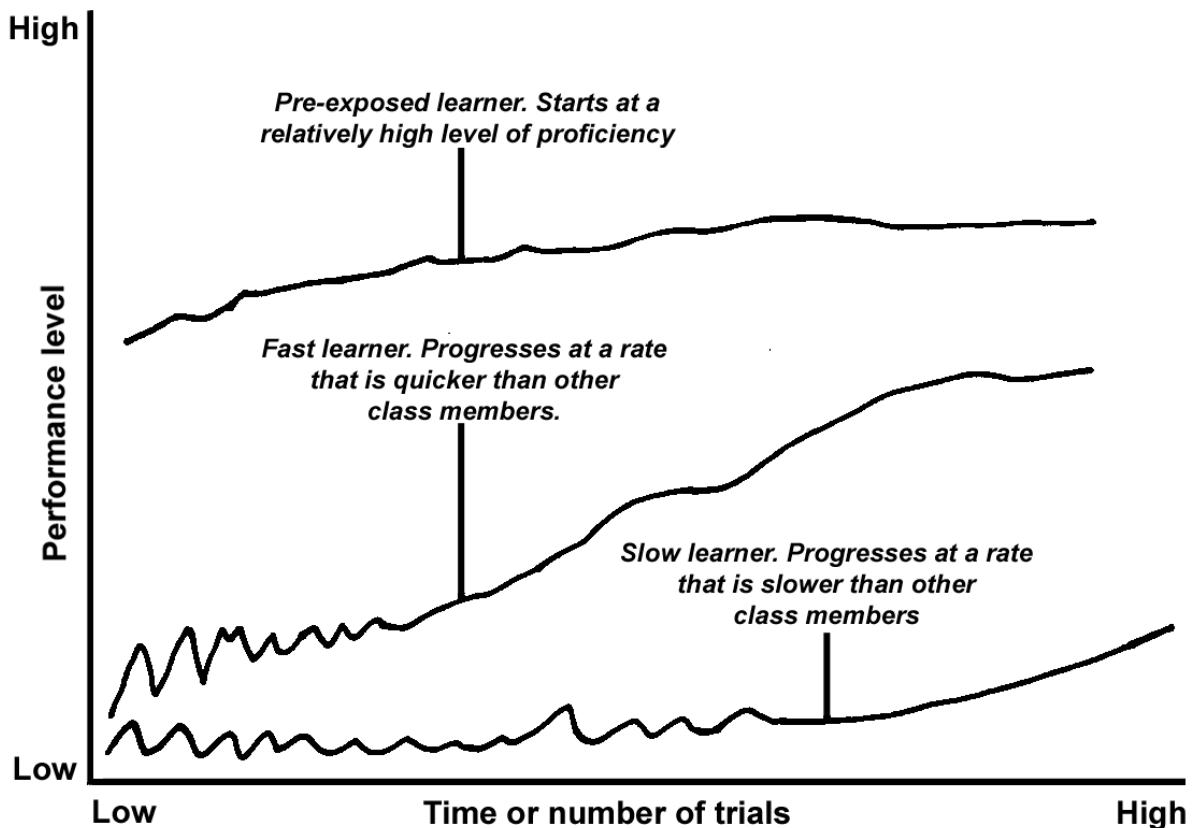


Figure 3

Three hypothetical performance curves that might occur in a group-instruction setting. Because of the different stages of skill development, each individual would require different instructional cues, skill performance orientations, and would exhibit different rates of skill development.

There are many factors that produce individual variations in coaching requirements. Ten factors and their implications for coaching are listed below.

1. **Age of the learner.** Skill-learning capacity varies with chronological and maturational age. Infants, teenagers, and the aged all have different potential capacities for learning. Two people with the same chronological age, but different maturational ages, also learn at different rates. The amount of practice time allocated to learning will depend upon chronological and maturational age. This should affect sports development design and program content.
2. **Degree or stage of training.** Strength, endurance, and precision skills are affected by training. The more training, the better the performance, given certain restrictions.

Groups comprised of members with different exposures to training should train on programs that are appropriate for their stage of training. A single program for a group assumes that all individuals are equal, but it is not appropriate for efficient and productive coaching.

3. **History of training.** The longer the history of activity in an individual, the greater is the number of elements that can be transferred to the first stages of learning of new activities. This determines the level of commencement for attempting an activity prior to the implementation of the principle of specificity in training. The directions and activities used in coaching should be geared to each person's sporting history, not just age.
4. **Skill level.** The skill of a person governs the potential rate of improvement. For example, it is much easier to improve from eight to twelve meters in the shot put than it is to improve from 20 to 24 meters, although the absolute differences are equal. Improvements of a specified magnitude will be more difficult to attain for more advanced athletes. Consequently, the amount of time allocated to activity development will be determined by the skill level and specific goals for improvement.
5. **Nature of the skill.** The more difficult or complex the skill, the greater the time required to reach specific proficiency levels. For programming training, complicated skills and games should be allocated more time than simple activities. The concept of variable programming needs to be introduced into training content.
6. **Reinforcers derived from the activity.** Strong reinforcers, derived from the training experience, produce faster rates of skill acquisition than weak reinforcers. The reinforcers derived in the sporting environment should be personalized. A method for locating these personal reinforcers was described by Rushall (1980a).
7. **Reasons for participation.** When an individual likes an activity, faster skill learning results than when the orientation is negative. For efficient participation, forced or compulsory activity should not be encouraged.
8. **Stimulus variation.** The rate of skill acquisition is faster in a more constant environment. Training environments should produce constant coaching situations, particularly for early stages of skill learning.
9. **Degree of distraction.** Distraction reduces the rate of learning, particularly in the early stages of skill acquisition. Distractions should be eliminated through self-preoccupied instructional techniques.
10. **Stimulus ambiguity.** The cues for instruction and directions need *to be as clear as possible. New instructional modes, such as peer and programmed instruction, appropriate vocabulary and imagery, and alternate media forms, must be provided to satisfy individual requirements.

Individuality is an ominous principle. It requires an end to group coaching be achieved. Because traditional group instruction methods have been perpetuated, and they are easier than individual organization patterns, it does not mean they are the best or justify their use. It may be more difficult, but it has to be followed to produce the best responses in athletes to sport training. Individualized training situations need to be engineered.

The attention to individual requirements becomes more important as the level of performance of the athlete improves. The modification of training to maximize an elite athlete's individual capacities is required if an athlete's potential for performance is to be realized.

3. The Principle of Self-control

The principle of self-control prescribes that athletes perceive being in control of all aspects of their sporting experience. This is a characteristic of elite athletes (Chicago *Tribune*, 1979; Chalip, 1980), is associated with higher levels of motivation and consistent goal-achievement (Broedling, 1975), and is a major feature which yields sporting experience satisfaction (Andrisani & Nestel, 1976). Self-control results in greater amounts of self-motivation that is the strongest form of motivation. Self-controlled individuals handle stress better and solve problems more effectively than externally controlled individuals (Anderson, 1977). They are more capable of self-direction in all situations (Dollinger & Taub, 1977). Self-controlled persons have better self-concepts and control themselves better (Bellack, 1975).

Self-control can be taught (Hauserman, Miller, & Bond, 1976) according to a behavioral model (Thoresen & Wilbur, 1976) and should form an integral part of any sports motivation program. Self-control needs to be developed in high-level athletes. It requires coaches gradually to remove themselves from being the directors of athlete behavior. Athletes should change from coach-dependent individuals to self-dependent. This development will be difficult for many coaches. Training procedures need to be implemented to produce it.

Some activities that coaches can encourage athletes to follow to start enhancing their self-control capacity include:

1. Before the athlete goes to sleep at night, have him/her recall and concentrate on the good aspects of the day's training. This develops positive self-evaluation.
2. Periodically have the athlete go to a quiet location where there are no distractions and think about what he/she wants to get out of the sport and what is the ultimate goal of participation. This develops self-commitment.
3. Have the athlete periodically describe what he/she does well and what has to be done to improve weaknesses. This produces public commitment for self-improvement.
4. Have the athlete set private performance standards that need to be attained for each training item. This develops intrinsic goal-setting behaviors and self-motivation.

The production of self-controlled athletes requires some drastic alterations in the current coaching model. It means that athletes are coached to the point where a coach is not the controlling agent or most significant individual in the athlete's sporting life. The decision-making processes surrounding training content, behavior control, and goal-setting, gradually have to be transferred to athletes through a series of appropriate teaching and developmental experiences. To deny this process will retard an athlete's progress.

4. The Principle of Involvement

The principle of involvement indicates that the higher the goals set for performance, the greater must be the time set for participation and the volume of training performed. Figure 4 illustrates the relationship between demand made upon resources and performance levels.

The implementation of this principle is based on the assumption that a mix of quality and quantity of training is achieved to produce an ideal training stimulus. That stimulus should adhere to the principle of specificity. The greater the number of tasks, for example, the decathlon, medley swimming, etc., the greater is the amount of training required. Given the

standards of today's world records, it is essential that athletes with high aspirations train for 12 months per year at their sports. Since world records will continue to improve at a rapid rate (Nelson, 1978), athletes will have to increase both the quantity and quality of training to achieve these new levels. They will have to work harder and longer. This was given as the major reason for the ascent of Bulgarian weightlifters to world supremacy on two occasions (Roman, 1974; Todd, 1984).

The implication of the principle of involvement in sports is two-phased. Since world-best performances are improving continually, athletes of all levels will have to readjust their goals and self-standards for performance in an upward direction in order to achieve participation satisfaction. This requires that more time and better training stimuli be provided for athletes to achieve the higher standards. Enough time should be given for the attainment of goals.

5. The Principle of Program Consolidation

The principle of program consolidation requires that coaching and instructional programs be built on sound and valid reasons. Programs should be planned, goal-oriented, and evaluated in ways that are independently verifiable. Self and objective feedback should be generated for athletes and coaches in order to promote change.

Figure 4 illustrates a hypothetical depiction of the relationship between performance improvement and effort-resource costs during the latter part of a performance improvement curve. As the function decelerates, greater costs are incurred to maintain appreciable improvement.

The implications of this principle are:

- Program content should be determined according to scientifically justified criteria.
- Evaluation should be restricted to observable and measurable effects.
- The timing of program offerings should be determined according to scientifically justified principles.
- The content, conduct, and outcomes of program items should be documented.

The emphasis should be for coaches to constantly update their knowledge. This contrasts with the current static models of coaching education and accreditation that have evolved in a number of nations (e.g., classroom courses for levels of coaching certification in the Canadian and Australian coaching development schemes). The content of coaching theory, science, and practice is changing rapidly. Texts written 10 years ago on coaching principles and actions are now outdated.

Consistent exposure to, and awareness, of new knowledge is essential for optimal coaching development. The essence of a progressive profession is continuing education. Legislated requirements for such experiences will have to be developed to avoid the current problem of practitioners employing outdated concepts and procedures. Ongoing accreditation and continuing education schemes should be mandatory for coaches.

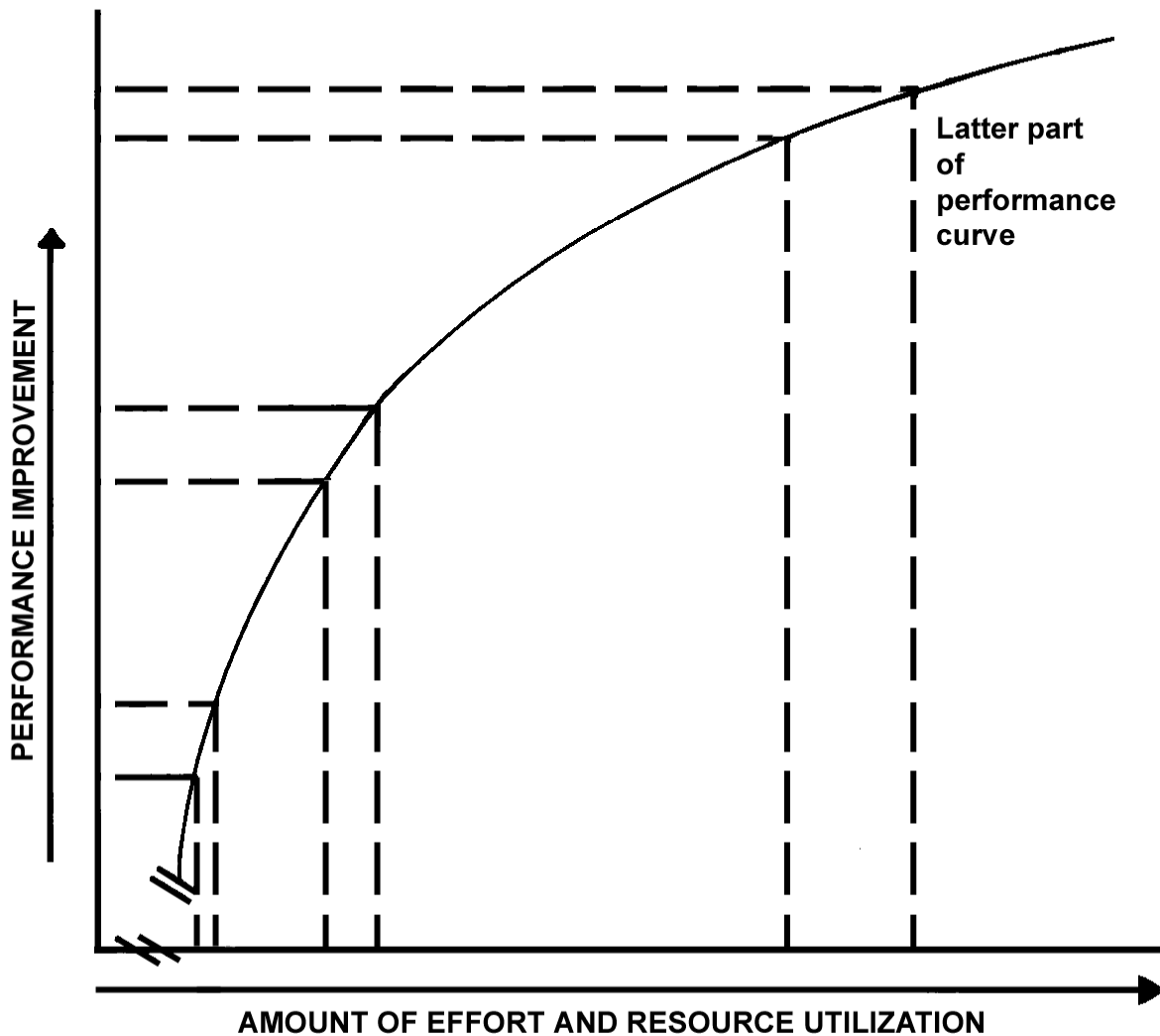


FIGURE 4

A hypothetical depiction of the relationship between performance improvement and effort-resource costs during the latter part of a performance improvement curve. As the function decelerates, greater costs are incurred to maintain appreciable improvement.

6. The Principle of Self-involvement

This principle of self-involvement dictates that individuals must continually be evaluated, alter, and upgrade their knowledge and professional skills. The history of sports has shown cycles of emphases (e.g., the emphasis on interval training in the 1950s; the emphasis on non-specific weight work in the early 1960s and which has emerged again recently), fads (e.g., vitamin E in the 1960s; relaxation training for all manner of reasons at present), and popular heroes that existed for a short period of time (e.g., the Australian swimming coaches of the 1950s). Failures to adapt to, or change with, the progress of man's performance have led to the downfall of many individuals, organizations, and nations as sporting powers.

A clear structure of professional ethics and codes of behavior among coaches needs to be developed rigorously. The outcome of these directives and roles should be:

- A continued up-grading of knowledge.
- A learning and cross-fertilization of ideas from other coaches and sports.
- A contempt for self-satisfaction and self-justification.
- A seeking of perfection.

Rushall (1980b) described the signs that suggest a coach is not engaging this principle.

7. The Principle of Balanced Preparation

This principle accepts that physical performances are affected by a multitude of factors. Consequently, the concentration on a subset of the factors rather than the set, produces less than optimal performances. It is recognized that no longer can a coach concentrate only on the physiology of training and expect to enhance performance optimally. No longer can one seek simple, single ingredients for coaching and teaching which are believed to vastly affect performance.

The implication of this principle is that training must integrate, with the appropriate emphases, the physiological, biomechanical, and psychological factors that govern performance. To stress one area over another is an uninformed decision. The content of training must emphasize those three areas of applied sport science. If this is done, the content of most training and sporting programs will be vastly different to the majority of those of today.

These seven principles suggest ways in which sport coaching could change in the future. Since they are founded in research, they should be implemented.

References

1. Anderson, C. R. (1977). Locus of control, coping behaviors, and performance in a stress setting: a longitudinal study. *Journal of Applied Psychology*, 62, 446-451.
2. Andrisani, P. J., & Nestel, G. (1976). Internal-external control as contributor to and outcome of work experience. *Journal of Applied Psychology*, 61, 156-165.
3. Bellack, A. S. (1975). Self-evaluation, self-reinforcement, and locus of control. *Journal of Research in Personality*, 9, 158-167.
4. Bompa, T. O. (1983). *Theory and methodology of training*. Dubuque: Kendall/Hunt.
5. Broedling, L. A. (1975). Relationship of internal-external control to work motivation and performance in an expectancy model. *Journal of Applied Psychology*, 60, 65-70.
6. Chalip, L. (1980). Social learning theory and sport success: evidence and implications. *Journal of Sport Behavior*, 3, 76-85.
7. *Chicago Tribune*, March 9, 1979, Chicago, U.S.A.
8. Costill, D., Sharp, R., & Troup, J. (1980). Muscle strength: contributions to sprint swimming: *Swimming World*, 21, 29-34.
9. Counsilman, J. (1968). *The science of swimming*. Englewood Cliffs: Prentice-Hall.

10. Dollinger, S. J., & Taub, S. I. (1977). The interaction of locus of control expectancies and providing purpose on children's motivation. *Journal of Research in Personality, 11*, 118-127.
11. Fitts, P. M., & Posner, M. I. (1967). *Human performance*. Belmont, California: Brooks/Cole.
12. Hauserman, N., Miller, J. S., & Bond, F. T. (1976). A behavioral approach to changing self-concept in elementary school children. *The Psychological Record, 26*, 111-116.
13. Holding, D. H. (1965). *Principles of training*. London: Pergamon Press.
14. Kreuger, W. C. (1947). Influence of difficulty of perceptual-motor task upon acceleration of curves of learning. *Journal of Educational Psychology, 38*, 51-53.
15. MacDougall, D., & Sale, D. (1981). Continuous vs. interval training: a review for the athlete and coach. *Canadian Journal of Applied Sport Sciences, 6*, 93-97.
16. Nelson, M. (1978). *The prediction of world records in athletics and swimming using a time-series analysis*. M.Sc. thesis. Theory of Coaching Program, Lakehead University.
17. Pipes, T. V. (1978). Variable resistance vs. constant resistance strength training in adult males. *European Journal of Applied Physiology, 39*, 27-35.
18. Radford, P. (1975). Acquiring skill. In J. Taylor (Ed.), *Science and the athlete*. Ottawa: Coaching Association of Canada.
19. Roman, R. A. (1974). The training of Bulgarian weightlifters. *Weight lifting, 1*, 41-42.
20. Rushall, B. S. (1980b). Be honest! *Coaching Review, 3*, 27-29.
21. Rushall, B. S. (1980a). Psychology of performance. In F. S. Pyke (Ed.), *Towards better coaching*. Canberra: Australian Government Printing Office.
22. Rushall, B. S., & Lavoie, N. A call to re-focus serious sport training. *SPORTS*, May, 1983.
23. Sale, D. (1974). Limitations to strength, power and speed. In J. Taylor (Ed.), *Science and the athlete*. Ottawa: Coaching Association of Canada.
24. Sale, D., & MacDougall, D. (1981). Specificity in strength training: a review for the coach and athlete. *Canadian Journal of Applied Sport Sciences, 6*, 87-92.
25. Thoresen, C. E., & Wilbur, C. S. (1976). Some encouraging thoughts about self-reinforcement. *Journal of Applied Behavior Analysis, 9*, 518-520.
26. Todd, T. (1984). Behold Bulgaria's vest-pocket Hercules. *Sports Illustrated, 60(24)*, 32-46.
27. Williams, L. R., McEwan, E. A., Watkins, C. D., Gillespie, L., & Boyd, H. (1979). Motor learning and performance under physical fatigue and the specificity principle. *Canadian Journal of Applied Sport Sciences, 4*, 302-308.

3. FEATURES UNDERLYING EFFECTIVE COACHING SYSTEMS (WORKBOOK)

Reference: Rushall, B. S. (1980). Characteristics of effective coaching. *Sports Coach, 4*, 4-8.

1. A TOTALLY PLANNED SYSTEM

Failure

1. Incomplete development.
2. Inconsistency in performance.
3. Possible boredom.
4. Ignorance about factors affecting performance.

2. MAXIMIZED PRODUCTIVITY

Failure

1. More time spent than necessary.
2. Decrease in the coach's credibility.
3. Increase in distractions, uncertainty, etc., which interferes with skill and application development.

3. MAXIMIZED DIRECTION

Failure

1. Reduction in training productivity.
2. Reduced productivity.
3. Reduction in participation efforts because athletes save for unknown future events.

4. MAXIMIZED INTERNAL MOTIVATION

Failure

1. Coach-dependent athletes do not achieve high levels of competitive performance.
2. Lack of adaptability and coping.
3. Limits an athlete's application.

5. MAXIMIZED INSTRUCTIONAL PROCESSES

Failure

1. Slowing of athlete development.
2. Reduction in training productivity.

6. MAXIMIZED POSITIVE EXPERIENCES

Failure

1. Reduced athlete participation.
2. Increased drop-out rate.
3. Inconsistent behaviors.
4. Variation in responsiveness.
5. Discipline problems.

7. MAXIMIZED SOCIAL ACTIVITY

Failure

1. A reduction in the relevance of the situation to the athlete's needs.
2. A reduction in the scope of activities associated with the sport.

8. MAXIMIZED PROGRESS INFORMATION

Failure

1. Undirected and non-purposeful participation.
2. Inconsistent application.
3. Possible distraction by outside influences.
4. Lack of relevance-comparison basis.
5. Lack of commitment/perseverance.

9. TRANSFER CONTROL TO GROUP/ATHLETE

Failure

1. Suppression of development.
2. Failure to achieve potential.
3. Become oppressive in time.

10. MAXIMIZED CONTENT VARIETY

Failure

1. Gradual reduction in application effort.
2. Loss of motivation through familiarity/boredom.
3. Complacency.

[This article is a slightly modified version of: Rushall, B. S. (1980). Characteristics of effective coaching. *Sports Coach*, 4, 3-5.]

4. CHARACTERISTICS OF EFFECTIVE COACHING

Brent S. Rushall

As one becomes involved with the task of conscientiously applying oneself to coaching, it is a common failing to emphasize one, or at most, a few features of orientation. Sport coaching is such an involved and complicated pursuit that the neglect of a requirement for effective coaching would produce a biased approach to the vocation. An imbalance would reduce the quality of services offered with a consequent detrimental effect on any athletes concerned.

It is of advantage for a coach to assess periodically his/her performance in terms of the macro concepts associated with effective coaching. It is a common human failing to become side-tracked with specific items that consume the coach's total attention. Consequently, other features that affect an athlete's performance at training and in competition are disregarded.

This paper briefly reviews the ten characteristics of effective coaching and the impact of a failure to employ each. For each characteristic that is ignored by a coach, so will the quality of his/her coaching be diminished. It is intended that coaches should reflect upon these characteristics and determine if any of them need to be emphasized, or even introduced, into the performance of coaching duties.

1. The Provision of a Totally Planned System

The planning of a training and competitive program now embraces the consideration of:

- A twelve month period at least.
- The phases of training, such as hard training and taper periods within the year.
- The content of each training session.

No longer is it satisfactory for a coach to attend training and then devise the content of the session while the athletes are warming-up. There are sufficient scientific principles associated with coaching and athlete performance to warrant the breadth and future orientation of athlete development schemes at least on a yearly basis. For elite athletes, the planning may have to extend over a number of years.

Total planning also requires a balanced integration of emphasis on each of the three sport science areas. Training should concern itself with the development of the athlete's

- Physiology (endurance, strength, speed, etc.),
- Biomechanics (all the required skills for the sport), and
- Psychology (competitive preparation, tactics, self-control, stress coping, etc.).

It is not acceptable for an athlete's training to consist of an emphasis on "*conditioning*", "*technique*", or "*tactics*". The denial of development of a basic area of performance could be tolerated once, but no longer is acceptable. A totally planned system requires extensive planning with an equal emphasis on physical training, skill development, and mental coping and preparation.

Failure: A Failure to provide the above characteristic produces an incomplete development of the athlete, inconsistency in performance, the possibility of boredom, and ignorance about factors affecting performance that restricts the athlete's coping capacity. The athlete will not succeed in achieving his/her potential.

2. The Maximization of Productivity

The time spent in training should be devoted totally to the sport participation. This is not to be confused with other activities (socials, film-nights, travel, etc.) that are involved with the broader aspects of athletic participation, but are not subject to the evaluation of a coach's effectiveness. The amount of training time used for activities that directly influence an athlete's performance is a measure of productivity. Some features that contribute to productive participation are:

- Work: rest ratios that are equal to, or more stressful than, those to be experienced in competition.
- Activities that are sport simulations, re-enactments, or at least adhere to the principle of the specificity of training.
- A training atmosphere which is similar to that required for competition (focus of attention, concentration, etc.).
- Delays that serve some effective use (provision of information, recovery, mental activities, etc.).

Failure: The introduction of unproductive time use results in spending more time than is necessary at the training site. Participants could perceive this as an unnecessary burden. It could also result in a decrease in the coach's credibility and an increase in distractions and uncertainty, which interfere with skill and application development of the athlete.

3. The Maximization of Direction

This requires the most efficient method for the dissemination of information to be employed. Primarily, it will be done outside of practice time, should be written and available for the athlete's use before the appropriate training session, and should be planned in advance of the time for its use. This means that training time will not be reduced through the coach providing information to passive athletes. It is more than likely that some information will have to be transmitted at a training session but it should be kept to a minimum.

Failure: The consumption of training time for the provision of information reduces the productivity of the session. It could also produce a reduction in participant efforts since they might save time for unknown or unpredictable events that could occur at training.

4. The Maximization of Intrinsic Motivation

Athletes have to want to perform to achieve in competition. Intrinsic motivation is developed through the establishment of athlete-approved goals, self-control, and self-evaluation. These features need to be encouraged and facilitated. Athletes usually have to be taught how to set standards for their own performances and how to reward themselves when those standards are achieved. This requirement ultimately means that the participatory experience will become athlete-centered and directed. This contrasts markedly with coach-directed environments where athlete responses depend upon coach directions and reactions.

Failure: Coach-dependent athletes do not achieve high levels of competitive performance when compared to intrinsically motivated athletes. Coach dominance also suppresses innovation and experimentation and leads to a lack of adaptability and coping in athletes. It also limits an athlete's application to training and competition.

5. The Maximization of the Instructional Process

Some technologies of instruction are vastly superior to others. The use of these technologies can replace inefficient coaching functions. Programmed instruction can be used to teach rules, procedures, and strategies. Shaping is appropriate for instructing skills and behaviors. Cooperative peer instruction is more effective than coach instruction. The concern of coaches needs to be one of designing situations so that behaviors are established to the point where they are permanently installed in the athlete's behavior repertoire. This contrasts to the common misconception that, if an athlete displays a single correct response, that athlete has "*learned*" to do the behavior. Much more is required to develop the athlete to the point where the correct behavior mode will always be exhibited. Unfortunately, coaches are usually not the best source of instruction or effective instructors for developing behavior.

Failure: The athlete's development will be retarded because of the extra time consumed by inefficient and inadequate instruction. There will be a reduction in the productivity of training.

6. The Maximization of Positive Experiences

A predominantly positive environment is motivational. It reduces discipline problems and increases both the quality and quantity of athlete responses. The athlete him/herself, fellow athletes, the coach, parents, and significant others can be exploited to yield positive reactions to productive and desirable athlete behaviors. The greatest variety of positive experiences should be engineered. This does not mean that there are no negative experiences for the athlete but, rather, that the overall sport experience has more positive than negative outcomes.

Failure: Negatively dominant situations reduce the athlete's application level, increase drop-out rates, produce inconsistency in behaviors and performance, and increase discipline problems.

7. The Maximization of Social Experiences

Sporting environments are social environments. Emphasizing social activities and facilitating social contacts satisfies a major activity requirement for athletes. This can be achieved primarily by programming social activities and responsibilities for athletes outside of training times, and increasing the meaningfulness of peer interactions within training.

Failure: The neglect of the social importance of sport experiences reduces the relevance of the situation for the athlete's needs. It also produces a reduction in the scope of activities that are associated with the sport.

8. The Maximization of Progress Information

Athletes should be encouraged to develop at least one long-term, ultimate goal for their sport participation. It may not necessarily be a performance goal as there are many reasons for participation other than performance improvement and achievement. The athlete should be provided with frequent, periodic attainments of intermediate goals that indicate progression towards the ultimate aspiration(s). Objective analyses can be used where they are appropriate.

However, assessments of progress may have to be made in individual counseling sessions, particularly where goals are not easily defined or measured. The periodicity of such interim assessments is peculiar to each athlete.

Failure: The lack of a long-term goal and progress information produces non-directed and non-purposeful participation. The athlete's application to training and competition will be inconsistent. There is a possibility of distraction by outside influences and a lack of relevance for the participation itself. Athletes without an ultimate purpose and direction will lack commitment to training and competitive efforts.

9. The Transfer of Control to the Group/Self

This has been partly alluded to above. The maintenance of coach-directed and -dominated approaches and coach-supervision stifle an athlete's initiative, the quantity and quality of application, and the development of unique capacities. The transfer of control is never fully achieved but is a continual process. It can be produced by involving athletes in a) decision-making, b) the control of functions, and c) their own evaluations. The assumption of responsible roles concerning themselves and the club/team/squad is particularly important.

Failure: Development is suppressed and athletes fail to achieve their potential. This becomes oppressive in time and increases drop-out rates and discipline problems.

10. The Maximization of Content Variety

The nature of the sport experience items affects an athlete's responsiveness to training and, to a lesser extent, competition. Situations and activities embracing the three sport sciences, various methodologies and settings, as well as continual evaluation, should be devised to produce novel events and variations that are challenging and motivational. Continual change, while a consistency of aims is maintained, produces adaptability and coping capacities. The coach's inventiveness, imagination, and resource utilization, will determine the success of implementation of this factor.

Failure: Repetitive activities produce reduced motivation, boredom, and diminished application in athletes. The continual use of the same solution (form of training) to the same problem (striving for performance increase) usually results in no solution after time. A lack of variety in training experiences indicates a coaching limitation, which in turn reduces the coach's credibility.

The efficiency, and therefore effectiveness, of a coaching system is determined largely by the above ten factors. These factors have not been listed in their order of importance. A failure to heed one or more characteristics produces problems and reduces the accomplishments of the coach and athletes alike. It is recommended that coaches periodically review these items and reflect upon their own coaching system and behaviors to see if they are present or not. If deficiencies are located, then corrective steps should be taken.

5. CHARACTERISTICS OF COACHING DECLINE

Reference: Rushall, B. S. (1980). Be honest! *Coaching Review*, 3, 27-29. Reprinted in *Runner*, 20(3), 10-12, 1982.

1. The "Aura" Complex

2. Self-advertising ("*I am the greatest*")

3. Self-justification of activities

4. Simple-mindedness

5. "*They're all athletes*" model

6. Intellectual withdrawal

7. Expedient evaluations

8. *Relabelling complex*

9. Self-deception

10. Self-talk and self-importance

11. Fault-finding

12. Athlete relegation

13. *"It's the Government's Faultism"*

14. Final Regression

[This article is reprinted and adapted from: Rushall, B. S. (1980). Be honest! *Coaching Review*, 3, 27-29.]

6. DIAGNOSE YOUR OWN DECLINE

By

Brent Rushall

13 typical symptoms of what may be affecting your coaching ability

"If the formula works, why change it?" It is a sound approach for any successful coach, that is, as long as time stands still. But sport, like life, is in a constant state of evolution. Physics, chemistry, philosophy, and politics, among life's many disciplines, are constantly bombarding us with the new techniques of how to improve our lifestyles. Innovations and refinements in such areas as sport sciences and talent identification programs are having a similar effect on sport.

Coaches who have been around for a while and who have been fairly successful may be letting the world pass them by. They often fall into a rut of complacency and resistance to change. The condition is known as *"coaching inertia"*. It can only lead to a dead end when a coach has outlived his usefulness to the sport. From evaluations at all levels of coaching competence come some examples of the symptoms of a coaching decline once inertia has set in.

1. The "Aura Complex." The coach considers that his/her presence is all that is necessary and sufficient for the production of athletic excellence. This is usually accompanied by a reduction in training program variety, a lack of athlete-coach interactional content that is directly associated with the task of training and competition, and the expansion of the coach's interests to the point where they detract from program offerings and the coach's availability. This set of behaviors is more likely to be evidenced by a) coaches who have been successful and prominent for a period of time, b) young coaches who have been elevated in their stature over a relatively short period of time, and c) coaches who have been associated with very successful athletes but are unable to explain adequately their contributions to the success.

2. "Muhammed Ali-ism." The theme of public addresses, such as those given at clinics and symposia, is predominantly one of self-advertising and justification. The listener is left with the impression that what is implied is that *"this coach is the single, most important reason for the athlete's winning performance."* Usually, this self-recognition is accepted with humility in front of a passive audience. This probably results from a lack of reinforcement for the coach and so the public exposition with the silent acceptance of the audience creates a positive reinforcement for the coach's self-generated but publicly transposed acclaim. This self-concept is maintained by many of those within the coaching profession who *"pay homage"* to the coach who is associated with an outstanding athlete.

The peculiar feature of this symptom is that the coach readily accepts associations with and accountability for outstanding athletes. However, such a stance is not adopted for athletes who fail to perform or improve. Coaches are equally accountable for successful and unsuccessful athletes.

3. Simple-mindedness. The coach seeks a single coaching activity or problem panacea that will develop athletic excellence. The underlying belief is that there is a *"secret"* program, diet,

set of instructions, or whatever, that is responsible for championship level performances. This violates the principle of individuality and the assertion of the complexity of human behavior. This symptom is usually displayed by coaches seeking instant success or by those who have not been associated with high-level athletes.

4. The "They're All Athletes" Model. Athletes are treated as if they are clones. They are subjected to the same training programs, skill development models, and handled in the same manner. Such a stereotyped approach violates the principle of individuality. It is inappropriate for as many athletes as it is appropriate. Admittedly, the treatment of everyone in a similar fashion is the easiest form of control orientation for the coach. However, because it is easy does not necessarily mean that it is the best form of control.

5. Intellectual Withdrawal. This constitutes the denial of any new knowledge or coaching procedures as being useful. This avoids having to change coaching behavior and justifies the *status quo*. This is a symptom that emerges when coaches become "*comfortable*" and "*fully satisfied*" with their coaching performance.

6. Expedient Evaluations. When new coaching procedures are tried they are expected to produce instant results. When the expectations are not fulfilled the coach returns to previous behavior modes. The end result of such "*evaluations*" is a resistance to attempting new coaching methods. This unreasonable evaluation criterion indicates a lack of understanding of the period of time required for human adaptations and performance improvements. This is particularly so with elite athletes where obvious changes are more time-consuming and difficult to achieve than for lesser-developed participants.

7. The "Relabelling Complex". Old coaching methods are continued but described in new, incorrect nomenclature to promote an impression of modernity and progression. This symptom is revealed when observation indicates that what the coach says he/she does is very much different to what actually is done. Talking the "*lingo*" is part of the coaching cult that is often reinforced within coaching circles. However, talk alone is not an adequate index of effective coaching.

8. Self-deception. New procedures and ideas are attempted but gradually fade into previous organizations and methods but the new labels are retained. The initial attempt has the best of intentions but the coach is unable to maintain the extra effort that is required to implement change. Thus, the gradual re-introduction of established actions lessens the coaching effort required and the coach eventually opts for that which is easiest rather than for that which is best.

9. Self-talk and self-importance. In discussions concerning athletes and coaching there is a high frequency of usage of first person pronouns. Often the royal "*we*" is used to describe the coach's actions. Programs and procedures that are discussed are exemplified by the coach's own descriptions of his/her experiences and successes, whether real or imaginary. Little discussion is entertained about other's programs or conversational suggestions.

10. Fault-finding. New coaching procedures or suggestions are criticized and found to be "*weak*" for a variety of coach-generated reasons without adequate scrutiny, assessment, or even comprehension of the item. This possible self-deception results in maintenance of the *status quo* and so, is easy for the coach. It generates an impression of knowledgeable consideration of

coaching alternatives and innovations but its continued repetition indicates insular closed-mindedness.

11. Athlete Relegation. The preoccupation of the coach changes from being athlete-centered to being concerned with the club, officials, organization, or the coach him/herself. The environment is no longer athlete-centered. Other issues consume the coach's focus of attention and expended energies. A variety of specific behavior situations evidence this failing. The coach is frequently absent from training and other sport-related activities, the content of meetings is primarily on topics that are removed from athlete services, the coach conducts a large number of clinics or visitations that detract from his/her attendance at training, power struggles within the club organization become more important than athlete contact and development sessions, are examples of the diversion of attention and capacities from that of athlete development. Once the importance of athlete contact is reduced as a primary requisite for effective coaching, then the coach's impact is degraded.

12. "Cold Feet" Regression. Although new procedures have been planned and practiced, in the stresses of important future events they are abandoned and the coach resorts to previously "*successful*" procedures. Such a regression is not justified if the athlete "*believes*" in what is being done. Returning to past practices without consulting the athlete(s) concerned may undermine coaching credibility and justifies coaching inertia.

13. "It's the Government's Faultism." Athlete failures are blamed on various agencies for not providing enough monies. This is despite the fact that many great athletes are nurtured in adversity, deprivation, and from undeveloped nations. This is not to deny that money is helpful. It does, however, allude to the fact that pouring more money into ineffective programs is wasteful. Expenditures on new programs should be objectively evaluated and monitored rather than considered on the bases of testimony. The responsibility for the failure of athletes to develop or perform cannot be transferred totally to a vague social entity.

The importance of enumerating these common coaching behaviors that indicate a decline in coaching performance is to stimulate coaches to reflect upon their own coaching actions. Perhaps their recognition will promote a healthier, more constructive approach to coaching advancement, rather than to the justification of inertia or the occurrence of degradation. There are a number of reasons for the emergence of these symptoms (e.g., lack of recognition, no clear evidence of achievement, stifled professional growth), which themselves are worthy of discussion and will have to wait for another forum for adequate exposition. Unfortunately, the reality of today's coaching is still that coaches must achieve in the face of much adversity. The profession has to progress. The emergence of the above symptoms is a danger sign to this progression and must be eradicated when they are recognized.