

SUGGESTED GOLF PROGRAM

AT THE
UNIVERSITY LEVEL

by 4589

DON MICHAEL PALMER

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Major Professor

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INTRODUCTION

Golf has become one of the nation's most popular individual sports activities. More and more courses are constantly being constructed and designed to meet the needs of all types of golfers. Constant exposure to golf through the news media has given golf an image of being an elegant, yet practical, sport. With greater emphasis on activities for an enriched leisure life both now and in the future, students are becoming aware of golf and the enjoyment and benefits derived from it.

David R. Forgan, a Chicago banker, expresses what golf is all about.

He says:

It is a science, the study of a lifetime, in which you may exhaust yourself but never the subject. It is a contest, a duel of melee, calling for courage, skill, strategy and self-control. It is a test of temper, a trail of honor, a revealer of character. It affords a chance to play the man, and act the gentleman. It means going into God's out-of-doors, getting close to nature, fresh air, exercise, a sweeping away of mental cobwebs, a genuine recreation of tired tissue. It is a cure for care, and antidote to worry. It includes companionship with friends, social intercourse, opportunities for courtesy, kindness and generosity to an opponent. It promotes not only physical health but moral force. (8)

The future looks bright not only for the professional golfer but also for the amateur. Statistics are impressive and to emphasize the growth and size of golf, the National Golf Foundation compiled these figures for 1969:

(1) There are 9,500,000 golfers--men, women, juniors--who play fifteen rounds or more annually, plus another 2,100,000 who play less frequently. (2) There are 1,055,908 acres of land devoted to golf. (3) There are 9,926 golf courses of which 1,050 are par 3 courses. (4) There is \$2,775,000,000.00 invested in golf facilities. (5) 200,000,000 rounds of golf are played annually. (6) \$380,000,000.00 is spent annually to maintain courses and grounds. (7) Manu-

facturers sold 13,798,801 golf clubs for a total of \$103,304,881.00. (23)

PURPOSE

To promote and sell golf, colleges and universities must have a comprehensive golf program. With this fact in mind, this paper will suggest ways to help the golf instructor and the student learn about golf. While not an all-encompassing report, this paper should serve as a starting point in the development of a golf program.

REVIEW OF RELATED LITERATURE

Research done in this area has been limited from the standpoint of the total golf program. The best guide was the Golf Instructor's Guide. (5) Several books that make concrete suggestions are Golf for the Physical Education Teacher and Coach (7) and Tested Ways of Teaching Golf Classes. (2)

In the area of evaluation and testing, especially the skills test, Vanderhoof (21), McKee (13), Chui (10), Huckelbridge (19), West (16), give a means of testing for specific skills in golf.

LIMITATIONS

A more detailed report from the standpoint of using a golf instructor survey could have been used. This report is designed primarily for the golf program at the university level but many ideas could be incorporated into a high school golf program. Due to the wide array of books, magazines and

articles on the various aspect of the swing, this report does not go into great detail concerning the aspects of learning how to use each club. Each instructor should develop word cues, appropriate analogies and other techniques to develop the total swing concept. Many of the periodicals used for the above are listed in the bibliography.

OVERALL PROGRAM

Developing a golf program involves thoughtful planning and learning. The instructor must keep the student in mind at all times and the communication between teacher and student should be open. By keeping explanations simple and translating the technical knowledge of golf into terms easily understood by the student, the gap between instructor and pupil will be bridged.

The pupil must realize that golf, like other activities, has its highs and lows, stops and starts. The pupil will progress on an even keel for a while and then may regress. Learning will eventually level off and the student will reach a plateau. The teacher and student must be aware that additional instruction, supervised practice and diligent hard work are necessary to rise above this plateau stage.

The teacher should allow time after the introduction of a new technique for practice on one aspect of the fundamental or thought pattern. Much of the time should be devoted to one aspect of control—for example, fundamentals of the grip and stance, until they can be repeated without conscious effort.

In developing the program, decisions relevant to lesson content and sequence depend on the needs and progress of the students, capabilities of the

teacher, facilities, equipment, climatic conditions and time allotment. Therefore, lesson content and the sequence of the program may vary, but it should always remain logical and sound. (5)

Research has been conducted to try to determine the best sequence for teaching the use of different clubs. It was concluded that there were no significant differences in performance for beginning men and women golfers according to the sequence in which the clubs were taught. (20). It was found that of the four women's clubs used--three wood, four, six and nine irons--the least number of errors was committed with the six iron. The three wood had the highest error percentage but the best overall yardage and lowest accuracy-error percentage for women. The study also showed the need to develop power in the women's swings due to the low average yardage achieved. Whatever sequence an instructor uses, he must design the lessons to produce the most effective learning experience in the situation at hand.

LESSON PLANNING

The beginning golf student needs to acquire basic knowledge, skills and attitudes that will enable him to enjoy playing a round of golf. In light of this, the teacher should formulate lesson plans which help the student realize the inherent values of the game, encourage him to respect the rules, instill in him a desire to improve and show him the means by which this can be accomplished.

When setting up the golf program's objectives, pupil needs and instructional resources available must underlie every successful teaching plan. The rate of learning varies with each individual. Therefore it would be unrealis-

tic to try and develop a class of perfect "swingers." Instead, the instructor's plan should expose students to the requisite skills for performance and stimulate the desire to practice and seek additional information.

CLASS ORGANIZATION

Developing the lesson plan is extremely important. Time and thoughtfulness should be of prime consideration. One of the first considerations would be class organization. Ideally the smaller the class the better the instruction. With a maximum of thirty-six to forty students, a program could be developed which would be very adequate. In organizing the class, the pupil ratio should be considered. One method used to a good advantage is to divide the class into three groups with each group concentrating on one aspect of the game. For example, one group would be on approach shots, another on driving, and another on putting. If the class meets three times a week, rotating the class into the different sections would give the student the knowledge for each club instead of maybe just one within a week. (22)

Stating the objectives of the class and giving a synopsis of what to expect is another consideration. It is best to stress safety at one of the first meetings and the instructor must impress upon the students the rules of safety and insist upon their strict adherence. Some general suggestions are as follows:

1. Group formations must provide ample space to swing and for the instructor to assist individuals.
2. Insist that clubs be left behind while retrieving balls.
3. If space is limited, take students outside the planned formation for individual correction.
4. Permit no one to leave the planned formation to retrieve hard balls until the signal is given or until all balls have been hit.

5. Group left-handed players together at the far end of the hitting line facing right-handed players. Avoid situation of students hitting back to back if at all possible.
6. Caution your students to keep hands and grips dry to minimize the danger of a club being released.
7. Encourage the use of golf gloves to help protect the hand and the development of blisters.
8. Be sure that equipment is in top condition at all times. Instruct students to report immediately if any club shows even the slightest damage.
9. When demonstrating in front of a line of hitters, be certain that balls are not within the reach of students while practice swings are being taken.
10. Caution students never to swing toward one another.

If the class is large, selecting some students as helpers would relieve the teacher of some of the duties such as roll taking, handling the excess paper work, handing out equipment or supervising the retrieving of balls. If a student is a qualified golfer he may be used in demonstrations and also could help the instructor in teaching the basic fundamentals of golf.

Incorporating the use of the buddy system would also enhance the learning process. Have two students check each other's swings as they hit their quota of balls. Be aware that the students must understand and know what to look for in checking another person's swing. One specific point at a time is recommended or this system could result in a mere pooling of ignorance. Some positions and movements each pupil should look for are:

1. Address position and stance
2. Backswing movement
3. Position of hands, arms, club and body and footwork at completion of backswing and follow through
4. General characteristics of swing--tempo
5. Isolated details such as head position, sideward movement, ball placement.

Reasons for using the buddy system are:

1. A golfer cannot see himself and needs outside prompting
2. Instructor cannot be everywhere
3. Develops power of observation in pupils

4. Utilizes limited space to good advantage
5. Makes students feel they are a part of the lesson even when not actively playing.

Additional techniques that could be used are:

1. Rotating buddies so that several swings can be observed during the class period.
2. In large classes where squads of 5 or 6 are assigned to each hitting station, each student can assume the role of buddy as he becomes the next in line to hit.
3. The buddy system also works well for the purpose of scoring and administering simple practical tests. (5)

Ball retrieving should be considered when organizing the class. Time required for ball retrieving can shorten practice periods drastically and could become a major obstacle in the learning process. During the early stages of instruction, when emphasis is on swing-building rather than distance hitting, use plastic or other soft-construction balls in order to shorten retrieving time. When hard balls are used, many instructors prefer a "bucket system" whereby two or three students share one bucket of balls.

Once all visible balls have been retrieved, students should return immediately to the hitting area. Time need not be spent on the hard-to-find balls until the last minute of the class time. At this time all retrieved balls should be pooled and counted before leaving the target area. Any missing balls can then be searched for by the entire class.

Investigate the possibility of using both ends of the practice field or range for hitting. Retrieving time might well be shortened by having the class proceed to the opposite end of the field to begin its next round of shots instead of returning to the previous hitting area.

To help further reduce the possibility of lost balls, place extreme slicers and chronic hookers at appropriate ends of the line which would allow for greater space to accommodate the error.

The teacher must realize that if the beginning golfer is right handed, the left side is the dominant side and vice-versa. When the situation arises on whether or not to have a left-hander play golf either right or left handed there are some factors to consider. The student should make the choice himself and should not be pressured into playing golf right handed because of the incapacibilities of the instructor on teaching a left-hander or due to lack of equipment for the left-hander. Strength of both right and left hands is a factor along with the coordination and natural movements of the pupil. Allow the pupil to experiment over a period of two to four weeks and by that time the instructor and pupil can make the decision.

If the class does have left-handers, it is important that the instructor use a set vocabulary. In other words, it is better to replace the terms "right" or "left" with words having the same meaning for both the right and left-handed student. For example, in holding the club, the hand closest to the target and nearer the top of the shaft could be called the "target" or "upper" hand. The instructor could also use the terms "rear" or "lower" hand. In explaining the stance, the foot closest to the target could be called the "front" or "forward" foot and the other the "rear" foot.

The golf classes would differ somewhat due to climatic conditions. Inside, classes would be conducted with more emphasis on the safety factor and the fundamentals of the swing. With some ingenuity and creativity the indoor classes could be more productive than classes held outside. Some of the various ways to conduct classes will be dealt with under "Games to Sustain Learning" and "Audio-Visual Aids."

There are various ways to arrange the students in a group. Depending on class size, the teacher can have them form a straight line, semi-circle,

complete circle or stand in rows or columns.

The straight line is good for larger classes where squad organization is used. By allowing adequate spacing between each student, the full swing may be practiced. The lines also enable the instructor to catch group errors at a glance since all the students are swinging in the same direction.

The semi-circle works well with small classes and the instructor can add more lines in depth for larger classes. The lines should be staggered for clear visibility. The semi-circle brings the instructor and student closer together and provides for better hearing and rapport between the two. It can also be used when introducing the stance and grip and when the instructor is demonstrating one part of the swing.

The circle would probably be used more inside than outside due to the area involved. One advantage of the circle is full view of every student's swing in a rapid but effective manner. The circle allows the instructor to make verbal corrections to a particular individual or to the entire class. Facing outward, students can take a complete swing without fear of hitting someone.

Rows would enable the instructor to move freely in between the students and facilitates the group's attention by keeping students within good hearing range. The students can turn around to see a demonstration or ask the instructor a question. If the instructor wants to present a demonstration or some form of verbal cue, he should position himself at the end of the column.

In arranging the group formations, develop a sequence that the students can follow. For example, in introducing the back swing, let the students see, hear, feel and understand what the skill is about. Then progressively the students learn the back swing from practice swings and participation until finally the students will incorporate that aspect of the swing into the total

swing by hitting either plastic or hard balls toward a target.

By studying the existing facilities, equipment and class size, the instructor can choose the formation that would best suit the needs of everyone concerned.

TEACHING WITH VARIOUS CLUBS

As mentioned earlier, the club sequence taught should be left up to the instructor--whether he starts with the putter, driver or an iron. Whatever club sequence the instructor chooses, there must be a definite progression and continuity to it.

The material which follows is meant to be utilized by the instructor as a guide and a source of individual techniques which can be referred to when setting up the method and content of the instruction.

Each phase should not only be taught by itself but should also overlap into the other phases of learning. For example, the instructor should introduce the phase through mental and initial learning and incorporate the mental concept of the skill into physical movements followed by the actual hitting of the ball.

By building a simple demonstration of the characteristics basic to the swinging movement, the instructor can help the student form a mental picture of the total swinging movement. The characteristics of the total movement are a repeatable, rhythmic pattern, a plane for hands and arms to follow, a constant arc and a definite sequential flow of body movement. (6) The use of word cues, exercises and teaching devices that stimulate the senses of sight, sound and feel will help build the mental concept.

In preparing the student for the full swing, the use of a middle or short iron would be more appropriate than the use of long irons or woods due to the control difficulties apparent in them. A knowledge of the grip, stance, posture and aim is important before the student addresses the ball.

Much can be said about the full swing and the fundamentals that make it up. One thing the instructor must be on the alert for is tension. Be sure the student is relaxed and that the arms hang naturally. A certain rigidity of muscles occurs if the arms and hands are held too far away from the body. This tightens and restricts the swing and eventually blocks a free move through the ball. (14)

A technique that has been around since the 1930's might revolutionize the teaching of the full swing. Many eminent practitioners, theorists and teachers of the golf swing have discussed and taught the square-to-square method and many believe that it is the simplest, most effective method yet devised. The method is represented as a total concept and relates each part to every other part and to the goals of the swing as a whole. (1)

The square-to-square method would undoubtedly raise many questions for the college golf instructor. The method takes dedication, a transition period, retraining of left-side muscles, and the skills would develop slowly. Questions that would be raised include:

1. Would the golf instructor revise his lesson planning and sequence learning to the square-to-square method?
2. Would the golf instructor understand and explain the correct procedure and method?
3. Would the golf instructor, student, or both, be afflicted by the "paralysis from analysis" syndrome?

The method will greatly help many avid golf players. However, for a beginning golfer, research, more measurement and evaluation of the method must

be done. Unfortunately, the authors of the book The Square to Square Golf Swing are guilty of omissions and ambiguous explanations. (12)

The instructor develops a single skill, the pendular swing, in the teaching of the pitch-and-run and pitching techniques. In developing the pendular swing, the student should have the lower part of the body relatively stable while only a portion of the full swing is executed by the upper body. The pendular swing reflects a "degree of the full swing" or an "expansion of the putting stroke." (5) By relying on previous learning experiences plus the mental picture formed, student understanding of the pendular swing technique will be accomplished.

Individualism and mental maturity are two concepts used in putting. Both greatly influence the manner in which the student applies the fundamentals. There are many putting styles. However, through consistency and accuracy, elements of form are not lost. Both the instructor and the student should know the difference between form and style. The introduction of the skills of putting--stance, ball placement, posture--should be stressed first so style won't enter the picture too soon. The student should be allowed freedom to discover a style of his own that would result in greater comfort and accuracy for him.

FACILITIES AND EQUIPMENT

An important part of the golf program that could make or break it is the facilities and equipment needed. Whether the golf program is set up for outdoors or indoors, the instructor, knowing what facilities he has to work with, can use his ingenuity and thoughtfulness to develop a successful program.

Most universities will have land that could be converted to fit the needs of a golf program. When giving a thorough inspection to existing athletic areas, note the features of the terrain and how the land could be arranged to fit the needs of the program. For instance, instead of just having a driving range where the students simply hit the ball out into an open area, develop and improve the land where conditions can actually simulate the features of a regulation golf course. Put stress on the mental and physical hazards the student would encounter on a regulation golf course. More often than not, the situations the instructor encounters will be two-fold. First, the existing facility may be on a temporary or permanent basis. During the season for golf, temporary or permanent golf courses could be established. The features of the golf course can be selected, constructed and installed accordingly. Secondly, the golf play would probably have to be conducted with other activities on the athletic field. Consequently, if the instructor is setting up and designing course features, they must be able to be easily and quickly installed, then dismantled and stored for future use. Naturally the amount of open space allotted for the golf program will determine whether or not a nine hole course can be utilized.

In setting up a simulated golf course, some of the major factors to consider are as follows:

1. Use grass tees instead of artificial tees if at all possible.
2. Chalk, stakes, flags or other items could be used for marking rough, out-of-bounds and hazards.
3. Goalposts, hurdles, boxes and mounds may be used as topographical hazards.
4. For water hazards or bunkers, portions of a baseball field, pole vaulting pit or part of the quarter mile track may be used.
5. Volleyball poles, high jump and pole vault poles, hurdles and boxes could simulate trees and shrubs.
6. Established turf areas marked off with chalk and stakes would suffice for grass greens. (5)

There are also other factors that must be taken into account when developing the golf holes. Make sure that the course is safe and that no holes criss-cross. Consideration must be given not only to the safety of the players but also to onlookers and facilities within the range of the golf course. A variety of golf shots on the course would enhance and provide better stimulation for learning. If the largest percentage of golfers are right-handed, the layout of the course should allow for a slice with the course laid out in a clockwise manner to keep the bad shots within play and not heading out to the surrounding area.

If the occasion does not present itself where it would be feasible for a simulated golf course, a regular driving range could be used. In developing a driving range, the area should be large enough so that the students can use a full wood and not be out of the boundaries of the range. However, if the facilities do not warrant using a hard ball, plastic balls can be used even though the feel and sound is considerably different than that of a regular golf ball.

Depending on the budget, the range could have lights, grass greens, tee areas and a shed to store equipment. The operational cost of a twenty-five tee driving range could vary from \$3,000.00 to \$5,000.00 depending on the equipment needs. (31) To develop a grass green for putting, the cost and maintenance could exceed \$6,000.00. If the program is to be held at night, light fixtures would also be necessary. In this category, quartz lighting is the best bargain. If the classes are to be held year around in a southern climate, then mercury vapor lighting is appropriate due to its extended life. Below is a chart to help select the fixtures for a driving range.

TYPE	OUTPUT	LIFE	COST	COLOR
QUARTZ	MEDIUM	2000 HRS	LOW	EXCELLENT
MERCURY	HIGH	24000 HRS	HIGH	FAIR TO GOOD
METAL	HIGHEST	7500 HRS	HIGHEST	GOOD

If weather is a constant factor in setting up the golf program, facilities can be used inside. The field house, gymnasium, golf room, locker room and classroom are a few areas that could be converted into a productive learning area. The gymnasium could be converted into various stations of learning whereby one area may be for woods, another for irons, pitch shots, putting and an obstacle course. A room may be set up just for golf in which the mats and nets or canvas backdrops are set up and in constant use.

Golf equipment purchases should reflect a long range investment plan. Considerable time should be spent on determining the equipment needed. It would be wise to obtain standard, medium priced and, if possible, matched clubs. Do not sacrifice quality for quantity. When starting the program, do not overlook the needs of the left-handed student or the extremes in individual differences that might be encountered in a class. In purchasing sets of clubs, variety in the grip (under and oversized), shafts and swing weight is a necessity. The purchase of various clubs from a standard juniors, ladies' and men's sets will give the individual that variety.

Through careful planning a substantial inventory could be developed in a short span of time. In selecting the clubs to buy, individual club selection within each purchase phase should be covered by a predetermined plan based on particular needs. Below are four examples of Set design: (5)

#3 wood	#4 wood	#5 wood	Driver
#3, #5, #7,	#5, #8	#4, #6, #8	#3 wood
#9 irons	irons	irons	#3, #5, #7,
Putter	Wedge	Wedge	#9 irons
	Putter	Putter	Putter

Information from one of the leading manufacturers and distributors of driving range equipment lists the approximate cost for golf clubs as follows:

(31)

25 Men's Right Hand Range Woods--Unibloc or Impar Heads with
Fiber Glass Shafts--\$4.95 to \$9.50
5 Men's Left Hand--Dow Metal--Laminated or Persimmon Heads
15 Ladies' Right Hand--Dow Metal--Laminated or Persimmon Heads
2 Ladies' Left Hand--Dow Metal--Laminated or Persimmon Heads
47 Of the above Range Clubs at an average of--\$7.00 each--
total of \$329.00

In selecting golf balls range balls with thick covers or of solid construction would be the best buy. Stripe balls help in ball identification and theft control. The stripe balls may also be used in checking overspin on putts and target alignment at the address position. The use of balls for indoor and outdoor space come in a variety of materials: cork, sponge rubber, hard rubber, plastic (solid or with holes) and other synthetic materials. The distance the balls travel, directional accuracy, safety, and longevity should be considered in the selection. The approximate cost for the balls, depending on one-piece construction or higher quality, will vary from \$1.50 to \$4.00 per dozen. The amount ordered will also affect the cost. For example, the approximate cost for eight hundred dozen solid, one-piece construction golf balls at \$3.20 per dozen is \$2,560.00. (31)

When purchasing mats portable lightweight materials used for protection of indoor floor surfaces or outdoor grass areas can be purchased from various

driving range companies. For permanent areas, large heavy-duty rubber matting with brush inserts and rubber tees or large mats of synthetic turf specifically designed for golf use are recommended. A popular mat set comes in three pieces and can be used both indoors and outdoors. The practice mat is sold at \$9.00 with the standing mat selling at \$5.50. (31)

When purchasing golf nets the golf instructor should have an idea on what to buy and how much to pay. The majority of nets are knotless nylon with a 7/8-inch to one-inch mesh. Nets come in all sizes from a single eight by eight foot piece that cost \$7.50 to large seven-man cages that cost \$4,600. There are special nets for chipping and many suppliers offer nylon net buckets, a twenty-four inch circular hoop which cost \$5.00 to \$6.00.

Care must be taken when using nylon. Through constant exposure to direct sunlight nylon will deteriorate. The sun's ultra-violet rays break down the fibers and, if not treated, can burn out the white nylon in a summer. To counteract this, some suppliers coat the netting with a dark dye which offers some protection. However, all net makers recommend keeping the net in shade and storing it indoors when not in use. With proper care nets can be expected to last at least two seasons and perhaps up to four or five years. To get maximum use out of a net place either a second net or target in front of the main net. Some advantages of using the golf net are:

1. Net de-emphasizes the importance of distance. No need to kill a ball as you won't hit past the net.
2. Net will allow you to concentrate on the swing, and on making proper contact with the ball.
3. Net enables a person to work on fundamentals and to groove them into the swing.
4. Using canvas target cover in front of net will enable a person to determine whether a ball is slicing or hooking by the roll of ball to left or right. (9)

Equipment must be taken care of daily, weekly and at the end of each golf season to obtain maximum use. The materials needed to keep the equipment clean and in workable condition are a scrub brush, scouring powder, towels, leather conditioner, wax, varnish stain, tape and shellac.

Inspection of the equipment after every hour should be done to see if any clubs are damaged and if the clubfaces are clean. Cleaning will enhance the living potential of the equipment.

The equipment that is used inside must be constantly checked. Some of the items that could be used inside include volleyball nets and poles, horizontal bars, uneven parallel bars, balance beam, side horses, chairs, ropes, waste baskets, mats and basketball hoops.

EXERCISES

Exercise, if performed correctly, will greatly enhance the learning process. The role of exercise in the teaching plan should serve to condition the student, help teach him a skill and reinforce and develop that skill. Select exercises that take a short time to explain, convey a simple kinesthetic message and produce the greatest number of desired movements. When using exercises, introduce them at the proper time during the progression of a skill. Explain the benefits and the why's of the particular exercise and the students will enjoy and know when to use it. There are many exercises that could be used when emphasizing a part of the swing or when introducing a new skill. Through the various magazines and books on the market, many types of exercises can be obtained to help the student.

Strength in the hands and arms is a prerequisite to success in golf.

Therefore, the instructor must be aware of the value of developing the students with certain exercises. Most students, if right handed, will be weak in the left hand and the dominant side in the swing for a right hander is the left hand. Consequently, efforts must be made to increase grip strength for the students. Through the use of isometric and isotonic exercises, the student can benefit greatly. Following are some exercise suggestions that can be helpful.

1. Swing a weighted golf club. A tin can filled with cement attached to a golf club will suffice.
2. Put the golf club against a wall or immovable object and strain the muscles.
3. Attach a clothes iron to the end of a three foot long cord dangling from the middle of a short pole. Wind the iron up and down until it can be done six times without special effort.
4. Obtain a couple of newspapers and hold in each hand at arm's length. Then crumple the papers into a small bag.
5. To develop finger strength, hold the club in the left hand with the grip end under the heel of the palm and the weight of the club resting on the little finger. The student should not experience pain.

AUDIO-VISUAL AIDS

The use of audio-visual aids contributes greatly towards communication, discussion and understanding of ideas. The use of notebooks, instructional diagrams, bulletin board displays, charts, graphs and films can be of significant value in the overall program. Through the use of diagrams and drawings, discussion can be endless on the fundamental aspects of golf. By drawing a layout of a golf course, passing out samples of score cards or pictures of the common swing patterns--hook, slice, push, pull--numerous points can be brought out effectively.

Cameras and video tape recorders are being used more and more for the detection and correction of errors in the golf swing. Research was done by

DeBacy on the use of the videotape to see if the effectiveness of the video tape replay made any difference in the actual and self-assessed skills of the beginning golfer. (18) The paper concluded that self-viewing did improve the accuracy of self-assessment and that the women students tended to hold inaccurate concepts of their actual skills as represented by their golf swings. Some other interesting findings included the tendency of women students in beginning golf to be inaccurate in the direction of overassessment. Viewing model performances alone did not improve the accuracy of self-assessment and that viewing the model's performances and one's own performance produced a reduction in overassessment.

Feedback as defined by Donnis Thompson is "knowledge of results" or "knowledge of performance." It is the effect of immediate external feedback--the moment-to-moment information depicting the difference between a desired movement and the actual performed motion--on the learning of selected golf skills through the use of the video-tape recorder and the graph-click sequence camera. (15)

Films are a great asset to learning and the National Golf Foundation has instructional 16mm movies, 8mm loops, and 35mm filmstrips which can be bought or rented. Also many companies and organizations loan films to schools for use in the instruction of golf. (24) (26) (28) (29) (30)

GAMES TO SUSTAIN LEARNING

One technique to sustain learning is to hold knowledge tournaments periodically throughout the instruction period. In this tournament students compete as teams in match play, answering or not answering submitted questions.

If one student answers and the opponent cannot, then the one who answers has won that hole. The questions can have levels of difficulty and be classified as fairway, rough or hazard. The students drawing hazard questions may be given a "handicap" in that teammates may help answer the question. This technique may be used on rainy days, as the class gathers, during bus rides to the golf range or course and at other such inactive times. (17) Another game that could be used is called "Stationary Golf." This game substitutes for, or is a preliminary to, playing on a real golf course. Purposes or possible uses of the game are:

1. To teach playing procedures and scoring.
2. To teach sequence of the game (club selection, type of strokes used in varying circumstances.)
3. To serve as a competitive motivating factor to students.
4. To give a more realistic aspect to driving range practice.
5. To serve as a means of judging student comprehension of procedures for playing the game itself. (5)

A game put out by the Three "M" Company called "Thinking Man's Golf" gives the student the scoring ability of a pro. However, he must use the correct strategy combined with a little luck to make the shots that beat or match par. This game can be used before going out on an actual golf course as the board game features eighteen of the best golf holes in the United States and simulates actual playing of a round of golf. Before attempting this game, the students should be versed in the use and selection of the golf clubs and rules of golf. The game sells for approximately \$8.00 and can be found in department stores. (27)

EVALUATION

Because of the limits of time, equipment and space that would confront

an instructor of golf, selection of tests and other evaluative techniques must be valid, reliable and practical. A guideline to follow for evaluation is that it should be concise and to the point. The evaluative techniques should relate to the objectives and content of the class structure and the material in the tests should be within the ability range of the students being tested. The instructor should have both subjective and objective methods of evaluation with a sincere attempt for validity, reliability and objectivity.

In the selection of skill tests, no one test can measure all of the basic skills. Therefore, specific skills which are basic to the sport must be tested individually. Some skill tests have been designed to measure these specific skills with certain clubs. Examples are the Vanderhoof drive and five iron tests, the Huckelbridge five iron test, the McKee five iron test and the Chui seven and four iron test. (16)

These skill tests should be measured on the basis of the instructor's selection of the appropriate test for his plan of evaluation. If such tests cannot be easily found, development of a skill test or a battery of tests could be carried out to satisfy the class needs for objective measurement. However, if this is the case, the newly devised test must be studied and continually evaluated to determine its own validity, reliability and practicality.

Due to the inconsistency of the performance of the beginning golfer, the instructor should not rely completely on the skill test results for the evaluation of the beginning golfer's skills. The instructor should look for the potentiality of the total swing concept in relationship to the student. A rating sheet or an analysis checklist could help the instructor be more scientific in the subjective rating of the student. One such checklist which represents a suggested format and content for subjectively rating

the full swing follows: (5)

Name _____ Date _____		FORM ANALYSIS CHECKLIST-FULL SWING	
Checkpoint	Criteria	Rating 3 = Good 2 = Fair 1 = Poor	Remarks
ADDRESS POSITION			
Grip	Proper Hand Position	_____	
Stance	Balanced Weight	_____	
Posture	Proper width/alignment	_____	
	Hip and Knee Flexion	_____	
	Alignment with Target	_____	
Golf Club	Arm Extension	_____	
	Clubface Position	_____	
	Distance from Body	_____	
PRELIMINARY MOVEMENTS	Adequate to Relieve Tension	_____	
TAKEAWAY	Weight Shift Arm and Club Extension Shoulder Turn		
TOP OF BACKSWING	Maximum Shoulder Turn Maximum Extension Firm Grip		
DOWNSWING	Weight Shift Wrist Cock Maintained		
IMPACT AREA	Steady Head Position Firm Target Side Proper Hand Action		
FINISH	Body Facing Target Weight Transfer Controlled Club		
TOTAL SWING PATTERN	Rhythmic and Timed Balanced		

There are still questions that haven't been answered. For example, what is the best direction for a lesson or practice session? Is it best to learn basically by imitation or by instruction? Would it help beginners if the

skills required were made less demanding at first, for example by using a much bigger ball? Can personality tests predict if a beginner has a potential to be a good golfer. (4)

Supplementary books could be used within the program and would serve as a means of evaluation in terms of written tests. Two booklets that are excellent are How to Improve Your Golf put out by the National Golf Foundation. (25) The other being Beginning Golf put out by Wadsworth Sport Skills Series. (3)

SUMMARY

In recent years, golf has become to be recognized as a lifetime individual sport. It is an activity which even a person of limited athletic prowess can fully participate in and enjoy. Therefore, it would seem natural and logical to introduce students to a physical activity they can pursue long after they have passed the age of prime physical condition.

Developing a golf program involves thoughtful planning and learning. The instructor must keep the student in mind at all times. By keeping explanations simple and translating the technical knowledge of golf into easily understood terms, the gap between instructor and pupil will be bridged.

Studies have shown that there is no significant differences in performance according to the sequence in which the clubs are taught. Whatever sequence an instructor uses, he must design the lessons to produce the most effective learning experience.

The teacher should formulate lesson plans which help the student realize the inherent values of the game, encourage him to respect the rules, instill

in him a desire to improve and show him the means by which this can be accomplished.

Class organization must be a prime consideration. One method used to a good advantage is to divide the class into three groups with each group concentrating on one aspect of the game. If the class meets three times a week, rotating the class into the different sections would give the student the knowledge for each club within a week. Group formations must provide ample space to swing and for the instructor to assist individuals whether the class is held indoors or outside. The use of the buddy system can enhance the learning process. Once the students understand the fundamentals and know what to look for, then can check each other's swings. Due to the possibility of having both right handed and left handed students, the instructor must use a set vocabulary that means the same to all students.

By building a simple demonstration of the characteristics basic to the swinging movement, the instructor can help the student form a mental picture of the total swinging movement. The characteristics of the total movement are a repeatable, rhythmic pattern, a plane for hands and arms to follow, a constant arc and a definite sequential flow of body movement.

Whether the golf program is set up for outdoors or indoors, the instructor, knowing what facilities he has to work with, can use his ingenuity and thoughtfulness to develop a successful program. Most universities have land that could be converted to fit the needs of a golf program. If it would not be feasible to set up a simulated golf course, a regular driving range could be used. Depending on the budget, the range could have lights, grass greens, tee areas and a shed to store equipment.

Golf equipment purchases should reflect a long range investment plan.

Through careful planning, a substantial inventory could be developed in a short span of time.

Exercise, if used correctly, will greatly enhance the learning process. Strength in the hands and arms is a prerequisite for success in golf. Therefore, the instructor must be aware of the value of developing the students with certain exercises.

The use of audio-visual aids contributes greatly towards communication, discussion and understanding of ideas. Some of the things that can be used include instructional diagrams, charts, films, cameras, notebooks and video tape recorders. Games are also helpful in sustaining knowledge.

The selection of tests and other evaluative techniques must be valid, reliable and practical. No one test can measure all of the basic skills. Due to the inconsistency of the performance of the beginning golfer, the instructor should look for the potentiality of the total swing concept in relationship to the student rather than relying completely on the skills tests.

Since golf is a sport that can be enjoyed throughout a person's lifetime, constant improvement of teaching methods is a must.

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SUGGESTED GOLF PROGRAM
AT THE
UNIVERSITY LEVEL

by

DON MICHAEL PALMER
B. S., Fort Hays Kansas State College, 1969

AN ABSTRACT OF A MASTER'S REPORT
submitted in partial fulfillment of the
requirements for the degree

MASTER OF SCIENCE

Department of Physical Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1970

The purpose of this study was to offer practical suggestions for the development of beginning golf classes at the university level. This was done by reviewing related literature and using personal experiences and the experiences of other golf instructors to make positive suggestions for improving the golf program.

Selection of topics in this report was based on the concept that there is more to a successful golf program than just teaching a student how to swing a golf club.

The results of this report may be used as reference material by golf instructors, faculty, administration, physical education department and community recreation organizations for setting up a golf program and the suggestions could easily be adapted for the high school level.

Information for this report was found in literature written by many golf authorities and from related fields in recreation and physical education.

In recent years, golf has come to be recognized as a lifetime individual sport. It is an activity which even a person of limited athletic prowess can fully participate in and enjoy. Therefore, it would seem natural and logical to introduce students to a physical activity they can pursue long after they have passed the age of prime physical condition.

This report was prepared with the belief that there is great deal more to successful golf program than swinging a golf club. Careful consideration must be given to facilities, equipment, thoughtful lesson planning and definite course objectives. Whether the program is planned for indoor or outdoor participation, it must follow a definite progression and expose the student not only to the fundamental aspects of golf but also to the inherent values of the game. The successful golf program must stimulate the

student to strive for improvement and to seek more information.

As with any program, the beginning golf program needs constant evaluation to determine whether or not it is fulfilling its intended purposes. Written and skills tests for the students must also be evaluated to determine their objectivity and reliability before being introduced into the golf program. Likewise, the golf instructor must constantly look for new ideas, methods and theories that might enhance the learning experience.

It is felt that this report could serve as a positive guide in the development of a golf program on the university level--a program that could contribute greatly to a student's enjoyment of physical exercise throughout his lifetime.