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Suggested Program of Swimming for Elementary and Junior High School

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SUGGESTED PROGRAM OF SWIMMING FOR

ELEMENTARY AND JUNIOR HIGH SCHOOL

by

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P. W. F.

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I. Introduction

It is the intention of the writer in this study to review the available literature in the field of swimming and life-saving and develop a program of swimming that could be acceptable for elementary and junior high school. This program will be designed to fulfill the needs of pupils from grades one through nine.

An analysis of the problem should bring under consideration the following areas: first, a justification of a swimming program; second, general objectives of a swimming program; and third, the type of program of swimming instruction.

The material for this study was gathered from the Eastern Illinois State College library, the University of Illinois library, private source materials, and by interviews with experienced persons in the field of swimming.

The justification of swimming instruction should be as a source of developing a high degree of water safety, the development of a recreational potential and the development of better health.[1]

It should be the duty of every community to provide swimming instruction so that the people can become good swimmers and in turn potential life savers.

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1. John H. Shaw, Carl A. Troester, Jr., Milton A. Gabrielsen, _Individual Sports for Men_, p. 262.

All school districts should make an effort to include swimming in the physical education program.[2]

Swimming and man's development have been closely tied together through the ages. The importance of swimming as a survival measure and as a part of military tactics was realized early.

The following statement was made by an officer who served aboard a lost aircraft carrier during World War II. "The most vivid need of the men in our navy was burned into my memory that day our ship was torpedoed. I saw men die because they could not swim well enough to carry themselves out of danger."[3]

During a war emphasis is put upon swimming for survival purposes and many lives have been saved because the man in danger of drowning had the ability to stay afloat or reach some artificial means of support.

There are certain basic facts everyone should know about water. Water closed over the mouth and nostrils of a person will drown (suffocate) him in a matter of seconds or minutes. The length of time a person can stay in water without becoming exhausted has limits depending upon the endurance of the indivi- dual and the temperature of the water. While it is true that some people who have fallen or have been pitched into deep water have been able by strenuous effort to keep themselves afloat or make some progress toward safety, the fact remains that to move and to keep from drowning in deep water, one must be able to swim or float.[4]

Being able to master the basic strokes in swimming is not enough in a good water safety minded community. The individual must master these strokes well enough to save someone else if the situation calls for it. Loss of life through

2. Winifred Van Hagen, Genevie Dexter, Jesse Feiring Williams, _Physical Education in the Elementary School_, p. 152.
3. U. S. Navy, _Swimming_, p. 8.
4. American Red Cross, _Life Saving Textbook_, pp. 1-2.

drowning ranks high on the accidental death list every year.

Approximately 6,700 people drowned in 1953. About 3,400 of these could be credited to swimming or playing in the water. The other 3,300 were credited as nonswimming fatalities, that is, persons falling into the water, transport accidents, ship repair work, and recreational boating.[5]

The record of drownings through the ages shows that real safety in the water is largely a personal matter. Every person from the time he first enters the water until he is no longer interested in swimming should steadily acquire the knowledge and the skill which will enable him to take care of himself under all except the most unusual conditions.[6]

Communities need to help in educating their citizens in building better health, in practicing public and individual safety measures, in providing recreational activities which are both useful and pleasant, and thus in the long run develop better character. These are named chiefly to emphasize the practical value a swimming program may have for a community.[7]

Only in later years has more attention been given to the recreational and esthetic value of swimming. In recent years many schools have added swimming programs to their curriculum.

Dr. Thomas K. Cureton of the Department of Physical Education at the University of Illinois points up the fact that in recent years schools are putting more emphasis on sports which have a distinct social value and carry-over as useful recreational activities in middle age. Swimming rates along with tennis and golf in this respect. Swimming and diving offer the possibility of a balanced type of skill education.[8]

The summer is an excellent time to teach swimming. The outdoor facilities

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5. National Safety Council, Accident Facts, (1954), p. 21.
6. American Red Cross, Textbook, op. cit., pp 2-3.
7. Thomas K. Cureton, How to Teach Swimming and Diving, I, p. 14.
8. Ibid., p. I.

are then available. Many schools hire physical education teachers during this season to conduct special swimming classes using outdoor pools or beaches.

Summer school-camping programs which use lake front camping sites also offer an opportunity to teach swimming

Cooperation between city recreation departments and schools, either for use of city swimming facilities or actual conducting of classes for schools, can aid teaching school children to swim.

Physical education teachers should make every effort to have school boards add swimming pools to their school plants. Vacant court yards, roof tops and empty basement space all offer potential space for swimming pools.[9]

In recent years the stamp of approval placed upon swimming and diving by the organizations behind the growth and development of American youth has been of great significance in the promotion of these activities.[10]

Life-saving organizations and the American Red Cross have led the way in promoting national programs of aquatic education. These programs have been developed through the efforts of the Y.M.C.A., the Y.W.C.A., the Boy Scouts, the Girl Scouts, and other interested organizations.[11]

A great deal of the success of any program depends upon its leader. Thus, it should be emphasized that the swimming leader has the opportunity of making a major contribution to the education of the child. Not only can the instructor inpart information, but he may help the student form excellent body habits, good attitudes and ideals which will broaden his character.[12]

Swimming should be taught in the elementary school. The acquiring of this skill early is vital not only because of its life-saving value but because swimming is one of the best all-around physical development activities. The swimming

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9. Shaw, Troester, Gabrielsen, op. cit., p 264.
10. Ibid., pp. 4-5.
11. Ibid, pp 4-5.
12. Ibid., p. 16.

program in the primary grades should be limited to the bare essentials.[13]

Dr. Cureton names the following aims school instruction in swimming may

have:

"1. Basic-skill education - formal, progressive instruction.
2   Exhibitional skills - exhibiting what has been learned
3. Recreational skills - play, fun.
4. Competitional skills - racing, striving to win distinction.
5. Humanitarian skills - preservation and protection (life saving).
6   Health and body - building activities - physical development."[14]

Since the school is to a degree responsible for the health of its students,

educators are realizing more the benefits to be derived from a swimming program.

If the school can provide a swimming program, the majority of boys and girls in

a community will have had access to much better aquatic training than other un-

organized programs.

If finances are not available for construction of a school owned pool, then

the school should search the community for available swimming facilities.

"All the available swimming facilities of the community should
be used by schools. Many agencies, such as the Y.M.C.A., Y.W.C.A.,
boys clubs, and athletic clubs, possess pools Schools can usually
make arrangements with these agencies for use of their facilities
during school hours."[15]

Experience has proven in the teaching of swimming in the elementary school

that the pupils efficiency is hastened by starting pupils as early as the first

grade.[16] This program then should start with the teaching of beginning skills

at the first grade level. A test should be administered during the first few

class periods to determine the child's ability. If the child is able to pass the

test given then, he should be allowed to proceed to the learning of intermediate

level swimming skills. Six or seven beginning pupils to every instructor or assis-

tant instructor is desirable. If, of necessity, larger groups must be handled,

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13   Van Hagen, Dexter, Williams, loc. cit., p. 152.
14. Cureton, op. cit., p. 1.
15. Shaw, Troester, Gabrielsen, loc. cit., p. 16.
16   Leslie W. Irwin, The Curriculum in Health and Physical Education, pp. 90-92.

a program of "mass instruction" can be worked out.[17]

Junior High pupils who are advanced swimmers can be used as assistant instructors under the direction of the regular swimming instructor. The use of pupil leadership is an important phase in education today. College students who are advanced swimmers and who are available might be used as assistant instructors to partially fulfill requirements of student teaching.[18]

The writer would like to suggest a program based on ability through testing. Therefore, the individual will progress as rapidly as he can. As soon as the individual masters the skills needed to pass a test and passes that test, the individual will move on to the next set of skills. This process could continue until the individual became a theoritically perfect swimmer. This program would like to produce as many of these swimmers as possible. However, the writer realizes that the opportunity of achieving this end is very remote. So the program will aim toward the perfect swimmer and proceed to produce the best swimmer possible.[19]

Summary

An attempt has been made in this first chapter to justify the need for a good swimming program and to show the importance of teaching swimming in the elementary schools. The alarming rate of drownings and water accidents make a well organized instructional program a necessity in our modern way of living. The program has not only a high degree of water safety as its goal, but also emphasizes developing a recreational potential and developing better health among individuals. It is important that such a program be started for people early in life and thus is very essential if possible to teach swimming in the elementary schools.

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17. Ibid., pp. 90-92.
18. David K. Brace, Health and Physical Education for Junior and Senior High School, pp 164-167.
19. Elwood C. Davis, John D. Lawther, Successful Teaching in Physical Education, pp. 313-332.

II. Objectives

There are three general objectives in this suggested swimming program.
These are: first, the development of a high degree of water safety; second,
the development of a recreational potential through swimming; and third, the
development of better health through swimming.

The Development of a High Degree of Water Safety

This is one of the most important objectives in any swimming program.
The stressing of this general objective is very important. Many lives are
lost each year as a result of drowning. There are two main reasons for this
loss of life. The first is the lack of safe facilities for swimming.

Communities should consider it of prime importance to provide safe places
for their boys and girls to swim. Drownings are rare in properly supervised
pools and regular bathing beaches.[1]

The second reason is the lack of qualified instruction these lost swimm-
ers had. The best insurance against drowning that a parent can obtain for a
child is proper instruction in the art of swimming. If properly instructed,
a boy or girl who learns to swim will not become reckless.[2]

The need for more swimming instruction and facilities for swimming is
clearly pointed up in these statistics. Although swimming is a very popular
sport, more than 90,000,000 Americans cannot swim well enough to take care of
themselves in the water. This figure must be lowered before the fatality

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1. Ferd John Lipovetz, The Teaching and Coaching of Swimming, Diving,
and Water Sports, p. 3.
2   Ibid., p. 3.

figure of 7,000 drownings each year can be improved. Many drownings could have

been avoided had the victim known how to swim.[3]

The armed forces placed a great deal of emphasis on swimming in their physi-

cal training programs during the last year. Modern warfare tactics require the

knowledge of swimming for every active participant. Here again the statistics

reveal that about forty percent of Navy recruits could not pass a simple swim-

ming test.[4]

Dr. Thomas K. Cureton in his book, How to Teach Swimming and Diving, offers

the following in regards to water safety in swimming. "Protection - education

toward the means of personal and public safety. Learning to swim is the surest

way to prevent and reduce drowning accidents. Adequate training offers the

means of helping others."[5]

Harold F Enlows in the American Red Cross textbook, Life Saving and Water

Safety, offers the following in substantation of water safety.

> "The one dark note in an otherwise bright and stimulating
> picture is seen in the number of people who lose their lives
> by drowning and in the many thousands who experience a 'near-
> drowning' but manage to survive . . . Knowledge and skill -
> these are the things which tend to eliminate danger. Skill
> in aquatics is acquired through instruction and practice.
> Knowledge is gained by means of instruction and experience.
> There is no end to the acquirement of either and a person is
> reasonably safe in the water in exact proportion to the amount
> of each he possesses."[6]

The Development of a Recreational Potential Through Swimming

Swimming can and does contribute a great deal to the recreation of many

people. Many children who have available swimming facilities and an opportunity

for instruction spend hours swimming for recreational purposes. Some adults

enjoy swimming immensly.

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3. John H. Shaw, Carl A. Troester, Jr., Milton A. Gabrielsen, Individual
Sports for Men, p. 263.
4. Ibid., p 263.
5. Thomas K. Cureton, How to Teach Swimming and Diving, p. 4.
6. American Red Cross, Life Saving and Water Safety Manual, p. VI.

Swimming has been called a complete recreational facility. This is true because it brings abandonement of cares and worries, of strain of mind as well as of body. Thus it fulfills a great need of modern times.

Most of us have memories of the old "swimming hole" wherever it may have been located. A visit to a modern swimming pool or a busy beach where shouts of glee and laughter are common, makes one realize the recreational value of swimming. In Detroit where married people spend an evening together swimming in the school pools there is evidence of the complete relaxation from cares and worries which this sport can bring. The more efficient a swimmer becomes the greater becomes the possibility of pleasure and the more complete the relaxation.[7]

John H. Shaw, Carl A. Troester, Jr., and Milton A. Gabrielsen have the following to say in their book, Individual Sports for Men, about the recreational potential of swimming.

> "The fun and enjoyment people get out of swimming and all that goes with it are testified to by the millions who swim every day during the summer. Truly it qualifies as the leading recreational activity from the viewpoint of participation. Knowing how to swim opens the door to many other aquatic activities, such as fishing, sailing, canoeing and aquaplaning, which otherwise would be extremely hazardous to the participant. The coeducational possibilities of swimming rank it high as a social activity."[8]

Dr. Thomas K. Cureton in his book, How to Teach Swimming and Diving, points out the following concerning the recreational potential of swimming. Once the skills of swimming are learned they are immediately useful for wholesome recreation and remain so throughout life regardless of age or sex. The sport is open to all at a small cost wherever there is water. Many activities including stunts, games, contests and exhibitions can be adapted to any size group.[9]

Harold F. Enlows, in the American Red Cross textbook, Life Saving and

7. Lipovetz, op. cit., p. 4.
8. Shaw, Troester, Gabrielsen, op. cit., pp. 262-263.
9. Cureton, op. cit., p. 4.

<u>Water</u> <u>Safety</u>, writes of swimming as a means of recreation.

"Recreation, in and on the water, has ever been and always will be appealing and attractive to a mulitude of people. Indulgence in any of its forms is recognized almost universally as being a happy, health-benefiting experience, but it goes even deeper. In swimming, canoeing, rowing, sailing, motorboating there may be found at one and the same time, release for mind and body - release that marks a change from routine habits of living, thinking and acting to the not usual, non-habitual stimulation of thought and activity which 're-creates' the individual. Environment, activity, and mental and physical stimulation, all contribute to the enjoyment which is so manifestly evident wherever and whenever people indulge in aquatic sports."[10]

The Development of Better Health Through Swimming

Swimming can contribute very much to the betterment of an individual's health. There are various physiological and psychological benefits to be derived from a good swimming program.

Although very little emphasis has been placed on the physiological effects of swimming as contrasted to exercise on land, there is basis for the following conclusions. Swimming may make a valuable contribution to the health of many individuals. It is a sport which is available to a great many even in winter. It requires very little in equipment and can be indulged in singularly or in groups. It requires the rather vigorous use of the muscular system and gives decided exercise to the important abdominal muscles. Certain strokes, particularly the breast stroke, improve the carriage of the head and shoulders.[11] Swimming may also be done by many persons who are handicapped physically. Its value has been proven in treatment of infantile paralysis and it is recommended for some persons who are barred from sports involving running.[12] To sum it up,

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10. American Red Cross, <u>Life</u> <u>Saving</u> <u>Textbook</u>, p. V.
11. Lipovetz, <u>op</u>. <u>cit</u>., p. 7.
12. <u>Ibid</u>., p. 7.

swimming is of value in conditioning muscles, in improving posture, in stimulat-
ing organic vigor and in contributing toward mental health because of its
recreational element especially when a congenial group swims together.[13]

John H. Shaw, Carl A. Troester, Jr., and Milton A. Gabrielsen, in their
book, Individual Sports for Men, offer the following material to substantiate
the development of better health through swimming. "Few physical education
activities rate with swimming as a physical developer . . . To many, swim-
ming represents one of the finest types of exercises utilizing most of the
major muscles of the body. Bathing has long been recognized for its hygienic
benefits. From the standpoint of psychological development the challenge of
learning a new water stunt or a new dive contributes greatly to the self-
confidence and courage of the participant."[14]

Further justification of teaching swimming as a method of developing
better health is given by Dr. Thomas K. Cureton in his book, How to Teach
Swimming and Diving. He includes developing and conditioning muscles, nerves,
heart, lungs, skin, glands, and organs in general among the physiological
benefits derived from swimming.[15]

Hygienic benefits include education in bathing habits which should
result in cleanliness of skin, nails. An opportunity is afforded to teach
a great number of hygienic fundamentals such as care of the eyes, ears,
and feet. The importance of diet, rest, sleep, warm-up exercise can be
taught with team participation.

Coordination between mind and body is an important part of the educa-
tional program of swimming. Qualities of courage, poise, mental control,
and mental relaxation can be attained through participation in this delightful

13. Ibid., p. 7.
14. Shaw, Troester, Gabrielsen, op. cit., pp. 262-263.
15. Cureton, op. cit., pp. 3-4.

and refreshing activity. The courage one needs for the first attempt to swim, the first back dive, and the first underwater swim is an example of a trait of character education in swimming. In becoming proficient at swimming one gains the valuable trait of self-confidence. The opportunities for teaching sportsmanship, loyalty, self-sacrifice, a democratic spirit, and kindred qualities are present as individuals are brought into team participation.[16]

Summary

The general objectives of the suggested swimming program have been discussed in detail in this chapter. The first objective is to develop a high degree of water safety. The importance of water safety in this program needs emphasis again and again. Communities should help in every way possible to obtain facilities and instruction in swimming for all people who are interested.

The second objective is to develop a recreational potential through swimming. Swimming can and does contribute a great deal to the recreation of many people. Many authorities are agreed that swimming is of great value because of its ability to relax people both in mind and body.

The third objective is to develop better health through swimming. There are various physiological and psychological values that can be derived from a good swimming program. Among these values are the development and conditioning of muscles, nerves, heart, lungs, skin, glands, and organs in general. Qualities of courage, poise, mental control, and mental relaxation, all may be obtained through participation in swimming.

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16. Ibid., pp, 3-4.

III. Program

This chapter will deal with the suggested teaching swimming program for grades one through nine. The following areas are included: Instructional planning in teaching swimming, safety factors, health factors, swimming lesson plan, suggested program generalization, ways of measuring success, special techniques and aids in teaching swimming, and skill explanation.

Instructional Planning in Teaching Swimming

There are several methods used to teach swimming to groups. Group teaching invariably differs from individual teaching. Careful planning of instruction is necessary to accomplish the objectives of the group. The primary objective in any swimming program is to teach people to swim or improve their previous swimming ability. However, every swimming class should be enjoyable for the students. The following is a summary of the instructional objectives of this swimming program.[1]

1. The experience should be an enjoyable one.

2. The skills taught should enable the participants to swim or become better swimmers.

3. An understanding of the following should be gained:

    a. The origin of swimming and its development.

    b. The value of swimming.

    c. The equipment and facilities necessary for teaching swimming.

    d. The teaching methods.

    e. An understanding of swimming language.

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1. John H. Shaw, Carl A Troester, Jr., Milton A. Gabrielsen, Individual Sports for Men, p. 291.

f. The precautions for safety in swimming.

g. The ways of conducting competition in swimming.

h. Special methods and class organization for teaching swimming.[2]

Safety Factors in Teaching Swimming

There are certain precautions which need to be taken to eliminate the possibility of accidents. To the non-swimmer, water is potentially dangerous and needs to be treated with respect.

1. When more than one group is allowed in the pool, one should be sure someone is watching each group. An advanced swimmer could be utilized if it is a class situation.

2. First aid equipment should be within easy reach.

3. A doctor should be available in case of an accident in the pool in addition to administering first aid and artificial respiration.

4. No running should be allowed on the pool deck.

5. Swimmers in the water should always have the right of way. A person should always look before jumping or diving into the water.

6. "Horseplay", such as pushing people or wrestling, should not be allowed in or around the pool.

7. No swimming should be allowed unless an instructor or life guard is present. If you are called out of the pool, the class should remain out of the water.

8. Floating objects, such as inner tubes and flutter boards, should not remain on the surface unattended.

9. The diving area should be marked off and swimmers should be kept out.

10. Diving off the springboard should not be allowed until the previous

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2. _Ibid._, p. 291.

diver has returned to the surface and moved to the side.[3]

All swimmers should be taught certain life saving skills. The American Red Cross Life Saving and Water Safety course should be followed by all advanced swimmers. Under an able leader, Mr. Carroll Bryant of the American Red Cross has developed excellent course material in life saving and water safety as well as in swimming. Some of this instruction should be started with beginners. The Y.M.C.A., Y.W.C.A., Boys Clubs and Scouts have developed course material and certificates in swimming and life saving. An attempt is being made to unify all courses in life saving and water safety by The National Aquatic Conference whose chairman is Robert Kiphuth of Yale University.[4]

Personal Health

Personal health is an important factor in a swimming program. Swimming may result in fatigue and various head infections. Fungus infection spreads easily in a warm moist climate. To avoid these troublesome problems, the following list of rules are to be promoted in this program to help insure good personal health in swimming.

1. Beginners should not be taught in water that is too cold (below 60 degrees F.).

2. Fatigue can be developed very quickly in swimming; therefore, frequent rest periods should be allowed.

3. Too much activity which calls for feet-first entry into the water can cause trouble. People who have trouble with middle ear infection, sinusitis, and other nasal infections should eliminate as much as possible jumping in, since this practice could result in:

    a. Washing of the ciliated epithelial layer in the nasal passage causing a lowered resistance by removing the protective fluid.

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3. _Ibid._, p. 296.
4 _Ibid._, p. 295.

b. Lowering the temperature in the nasal passage.

c. Forcing of mucus up the eustachian tube into the middle ear.

d. Forcing of mucus and water into the sinus.

4. Keep pool deck and shower floor clean to avoid the spreading of fungus infection.

5. Room temperature should be kept at least 80 degrees F.

6. People who have possible communicable disease, such as colds, boils, nasal or ear discharges or sores should be kept out of the pools.

7. The normal class period should not be longer than an hour. Swimming teachers should always remember that even though the air temperature may be 80 degrees F., the skin temperature of the individual who is not in the water could be considerably lower because some of the heat is used in the evaporation of water which is on his body; therefore, chilling can and does take place in rooms in which the instructor might think are comparatively warm.[5]

Sanitation

Good sanitation practice is another important factor in the good safe swimming program. Disease germs spread rapidly in water that is not clean and does not have the proper chlorine residual and pH concentration. Also, unsanitary situations caused by expectoration and urination in the water must be controlled. The following is a list of rules that should be promoted in a good swimming program.

1. All swimmers must take nude soap baths before entering the pool.

2. The pool water should be kept clean and clear. Daily bacterial counts should be taken.

3. The chlorine residual and pH concentration must be kept at their proper levels.

4. Expectoration or urination must be prohibited in the water.[6]

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5. _Ibid._, p. 296.
6. _Ibid._, p. 296.

Swimming Lesson Plan

There should be a well organized plan for every swimming lesson. Although the same formula cannot be used for all classes since there is variance in age, ability, and conditions, there is a general form which the class work can take. This tried and proved plan should include:

Warm-up Drill: This warm-up drill serves the purposes of stimulating circulation, fixing the attention, making the class group conscious and perhaps mastering certain swimming movements. The instructor may determine the times necessary for this drill usually taking only a few minutes up to ten minutes.[7]

Explanation and Analysis: The instructor sets the stage for the practice portion of the lesson. He must have his material well in hand so that he gives clear explanations and demonstrations. It is better if he can demonstrate and talk at the same time. In the higher brackets of skill, there will not be the need for as much explanation or demonstration. A brief outline for the class period can be made.

In order for the pupils to get an orderly arrangement of the course material, the instructor should, after the first lesson, start his period with a brief review of the proceding skills. Then he can lead from this into the discussion of the practice for the day. The pupil can then grasp better the new material in relation with what he has already covered.

Practice Period: The goal for the practice period is to have a maximum amount of group practice, some individual instruction and a minimum of explaining or demonstrating. Since the pupil learns most quickly through practice, he must have increasing amounts of it as the course progresses. Opportunity for rest and recovery must be given at regular intervals so that the greatest amount of concentration and effort may be obtained.[8]

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7. American Red Cross, Life Saving and Water Safety Manual, pp. 22-25.
8. Ibid., pp. 22-25.

The period should begin moderately with some free swimming or splashing about, then a brief drill on some basic fundamental such as rhythmic breathing may be practiced. Next a review drill should be held on previously taught skills and finally the drill on the new material for the lesson. Mass and individual criticism, correction and comment all need to go along with the drill period.[9]

Tapering Off Classwork: Three, four, or five minutes before the end of the class period, the active practice should stop. This gives the instructor time to comment on what has been accomplished and perhaps give a few highlights on what is to come next.[10] Any comment should be brief, kindly, and encouraging.

There should be a brief and simple play period at the end of the class period so that the student may return to the relaxed informality which should go with all swimming excepting the actual times devoted to learning. Games, stunts, or informal competition may be entered into if they are of the easy variety.

The class period should close on scheduled time and the pupils should be called from the water while they are happily active, leaving them eager for the next lesson.

The instructor should watch each individual for signs of exhaustion or distress of any kind. It is better to stop the period while most are still fresh. In the long run better results will be obtained.

Certain similarities will be noticed between a lesson plan for a swimming class and a gymnasium class. The objectives are somewhat similar and thus it is logical to correlate the two.

To sum up, the well rounded swimming lesson plan should include:

"1. Warm-up drill on land.

2. Explanation and demonstration of the lesson content.

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9. _Ibid._, pp. 22-25.
10. _Ibid._, pp 22-25.

3. Period of adjustment to the water.

4. Review practice of selected, previously learned skills.

5. Practice period for new skills to be learned.

 a. Mass drilling.

 b. Individual correction and comment.

 c. Repetition of explanation and demonstration.

6. Tapering off period by means of:

 a. Free swimming

 b. Stunts

 c. Games of low organization

 d. Informal competition."[11]

On some occasions one or more of the above parts may be eliminated but largely the elements above outlined should be utilized.

Suggested Program Generalization

The following swimming skills are basic and essential in teaching beginning swimmers. These skills are:

"1. Familarity with water, including breath control.
2. Tuck float and stand for learning buoyancy.
3. Face float, glide and stand for learning body position.
4. Back float, glide and stand for learning inverted body position.
5. Leg kick to teach the propelling force of the legs.
6. Arm propulsion to teach the power obtainable through the arms.
7. Changing positions for teaching confidence.
8. Elementary stroke.
 How these skills are taught is conditioned somewhat by the size of the group and the available facilities for teaching. These skills are basic to learning to swim and should be contained in any program for teaching beginners."[12]

These skills will be explained later in this chapter.

The various stages of degree of skill among stundents must be learned so that they may be classified for instruction. A group may be divided as follows:

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11. Ibid., pp. 22-25.
12. Shaw, Troester, Gabrielsen, op. cit., pp. 264-265.

A. Beginners Test

    1. Submerge face fully, breath is to be held at least ten seconds.

    2. Standing in chest deep water, inhale through the mouth above the sur-
face of the water and then exhale through the mouth with the head completely
submerged ten times continuously and in rhythm.

    3. Demonstrate tuck float and stand for bouyancy (optional).

    4. In waist deep water, push from object in face glide position and recover
to standing position without aid or support.

    5. In waist deep water, push from object in back glide position and recover
to standing position without aid or support.

    6 In waist deep water, use face glide and add leg kick long enough to
establish that the body is propelled by the leg kick.

    7. In waist deep water, use face glide and add arm stroke long enough to
establish that the body is propelled by the arm stroke.

    8. Demonstrate the ability to change positions from face glide to back
glide.

    9. Demonstrate dog paddle stroke for fifteen yards.[13]

B. Low intermediates Test (swim less than fifty yards)

    1. Demonstrate trailing the legs with minimum motion the following arm
strokes: elementary breast, elementary back, side, front crawl, and back crawl.

    2. Demonstrate using a kickboard for arm support the following leg kick:
elementary breast, elementary back, side, front crawl, and back crawl.

    3. Swim fifty yards continuously using in good fashion any one of the follow-
ing strokes: elementary breast, elementary back, side, front crawl, or back crawl.

    4. Bob twenty-five times continuously and in rhythm in deep water.[14]

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    13. American Red Cross, Manual, op. cit., pp. 43-45, and Shaw, Troester,
Gabrielsen, op. cit., pp. 264-270.
    14 Ibid., p. 50, p. 291.

C. High Intermediates Test (swim at least one hundred yards using more than

one stroke)

1. Swim a coordinated and effective elementary breast stroke for fifty

yards.

2. Swim a coordinated and effective elementary back stroke for fifty yards.

3. Swim a coordinated and effective front crawl stroke for fifty yards.

4. Demonstrate in deep water sculling and finning.[15]

D. Advanced Test (swim ¼ mile using crawl, back, side, and breast stroke)

1. Bob in deep water one hundred times continuously and in rhythm.

2. Tread water for two minutes in deep water.

3. Demonstrate effectively and in good form the pike and tuck surface dive.

4. Continuous swim for five minutes using any stroke.

5. Swim ¼ mile using crawl, elementary back, elementary breast and side

strokes.[16]

A good teaching setup at a pool may be worked out on the principle that all

groups can be working on the same skill at the same time but at different achieve-

ment levels. This provides activity for both the beginning swimmer and the skilled

swimmer. For example, groups may be working in the breathing skill in the

following manner:

"Group A (Beginners): Land drill on breathing for the crawl stroke.

Group B (Low Intermediates): Shallow water bobbing or face-in-the-water

breathing, bending forward from a standing position.

Group C (High Intermediates): Deep water bobbing, pushing off the bottom

with feet.

Group D (Advanced): Breathing while swimming the crawl or with legs hooked

in through while arms are performing regular movements."[17]

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15. Ibid., pp. 53-54, p. 293.
16. Ibid., pp. 56-57, p. 293.
17. Ibid., pp. 56-57, p 291.

Each skill should be broken down to different levels. There should be several different activities within each group so that the program may be varied. The beginners might have one or two drills in the water on breathing besides their land drills. Simple ducking and holding the breath while placing the face in the water are simple processes that can be used.[18]

If the instructor or instructors are working with a group that has more uniform skill, the activities may be rotated so that each group gets practice in a different skill.

Group A could be working on breathing excerises, Group B on flutter kicking, Group C on the crawl stroke and Group D on advanced swimming.

A ten minute period is sufficient for each skill before rotating to the next. Ten swimmers is a good number for each group.

If the entire group is small enough (ten or twenty), all may work on the same skill at the same time or in relays. Land drills, kicking, while holding the side of the pool and bobbing work well for a group. The important thing here is that all will be performing instead of some standing around waiting.

If there is individual instructions, the instructor may vary the procedure more at will.[19]

Ways of Measuring Success in Swimming

The measurement of speed is quite simple through the use of a stopwatch. Distance can be measured very easily, also. However, in the matter of how well a skill is performed, whether it be a swimming stroke or stunt, the task of measuring the amount of success becomes complicated. Several agencies and individuals have developed a series of skill tests by which over-all swimming success can be determined. The outstanding of these are the Red Cross, and

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18. Shaw, Troester, Gabrielsen, op. cit., p. 293.
19. Thomas K. Cureton, How to Teach Swimming and Diving, pp. 159-169.

Y.M.C.A. progression tests. The Red Cross progression tests are in Appendix A of this paper. Progression tests involving skills or stunts are most generally measured on a pass or fail basis.

There are several ways in which testing can be used. They are as follows: (1) to classify students, (2) to measure class and individual progress, (3) to motivate students or (4) for grading purposes. It is important that no matter what test is used, the test should not become the main objective of the student. Tests should be simple to administer and not too time consuming.[20]

Special Techniques and Aids in Teaching Swimming

Most swimming instructors with experience like to develop their own special techniques for teaching swimming. Some use aids in the water, some use music with drills, and others like to use motion pictures. Here are a few special techniques which have been proven beneficial.

1. The swimming movements of some of our animals may be dramatized. This appeals to young children who especially like to imitate, and try some of the stunts.

2. When beginners first venture into deep water, a fish pole or equivalent is an excellent safety device. The end of the pole may always be reached easily thus giving the swimmer a feeling of confidence.

3. Support objects are seldom used when giving group instruction. However, they may be used to develop confidence in the very young or non-swimmers. The water wings and tubes are not good safety devices since both can slip away from the non-swimmer. The jacket which ties on is a good safety aid especially for children when parents or the instructor cannot be close by the youngster. However, special support objects are not recommended in teaching swimming as they retard swimming.[21]

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20. Shaw, Troester, Gabrielsen, op. cit., p 296.
21. Ibid., p. 294.

Familiarity with Water

Fear of water is a big factor which must be overcome to teach swimming. The swimming instructor must from the beginning spend quite a bit of time to help individuals overcome fear. As a person becomes familiar with the water and becomes confident of his ability to move about in the water, he will gradually lose this fear and progress faster in the skills of swimming.

A group of beginners should be given a general explanation of what they are going to do and perhaps have a demonstration for them before they enter the water. They may be shown slides or movies. The group should be small — not larger than ten to twelve.

The group should be taken into shallow water about waist deep and be sure they are comfortably warm. They may join hands and form a circle or form two or three lines facing the instructor. Try to make play of the learning situation. The following procedure is suggested:

1. The group may splash water over themselves and, in a limited way, over one another. Keep the splashing to a playful degree so that no one becomes "doused".

2. Have the group holding hands, kneel in the water until the water comes well up on their chests.

3. The group may now sit down on the bottom still holding hands until the water reaches up to their necks.

4. Set the feet well apart. Then while holding the nose with one hand, ask the group to bend forward placing their faces in the water for three counts and then return. Continue with this until the children can keep their faces in the water up to a count of fifteen seconds.

5. The previous exercise should be repeated but with the eyes open under water and starting to blow air out through the mouth.

6. The same exercise should be repeated without holding the nose.

The control of breathing in the water is essential to knowing how to swim. A person may be said to have breath control when he can do these things: (1) hold his breath when his head is under water, (2) exhale air under water, (3) breathe normally when his head is out of the water while engaged in some water activity, (4) breathe rhythmically while bobbing up and down exhaling while under water and inhaling when out of water.[22]

Tuck Float and Stand for Buoyancy

The beginner must get the feel of the lifting force of the water. At first it will be difficult for him to realize that the water can help him float. Actually the water can support the weight of the body. If the beginner learns the tuck float, he will feel the support the water is capable of giving.

First in learning the tuck float, take a deep breath, place the face in the water and draw the knees up toward the chin grasping them with the arms. The body should float with the back just out of the water. If some beginners sink to the bottom, check the amount of air they are taking into the lungs. Some children find they are unable to do this exercise but readily make up for it when they use their arms and legs. Simply raise the head quickly and thrust the feet downward to return to a standing position. The hands will balance the body.[23]

Face Float, Glide and Stand

Beginners may next try the face float with a glide ending in a standing position. It is best to have a "shove off" point such as the end of a pool. Place the face in water with arms outstretched in front and shove with the feet so that the body glides in a horizontal position. This should take about

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22. Shaw, Troester, Gabrielsen, op. cit., pp. 265-266.
23. American Red Cross, Manual, op. cit., pp. 24-36.

ten seconds. Then resume standing position by raising the head, pushing the arms down to the side, and thrusting the feet downward all at once.[24]

Back Float, Glide and Stand

Some swimmers who have difficulty holding their breath for the face float will like the back float better. A shove off point is again needed. Sink to a position where the head is just out of water keeping the hands by the side; push with feet to a horizontal position on back. Keep the chin forward and the hips must be straight. The body must be relaxed as much as possible and the eyes should be kept open. When the push has lost its momentum, return to standing position by pushing down on the hands, bringing the head forward and tucking up the knees.[25]

Leg Kick

The beginner is now ready to apply the propelling force which will enable him to continue on the surface. The easiest of the kicks is the flutter kick. Two methods of teaching this skill will be outlined here. The first method is to apply the flutter kick from the face float. First, press down one leg while the knee of the other is flexed, raising it to the surface so that the heel just breaks the water surface. The legs must be relaxed in performing this kick to keep down fatigue. The legs should bend considerably on the up beat and should spread about fifteen to twenty inches. The swimmer should kick as long as he can hold his breath with face in the water.

Another method in teaching this skill is to have a partner help. The partner will clasp the forearm of the swimmer, either moving or standing still. The swimmer may keep his head out of water or under as he desires. The flutter

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24. Cureton, op. cit., p. 139.
25. U. S. Navy, Swimming, p. 77.

kick should also be tried on the back. Here the flutter kick is started as the push for the back glide is started. Here again it is important to keep the trunk straight. A partner can help here by holding the swimmer's head above water. In so doing, he may place the palms of his hands over the swimmers ears with the little fingers under the chin.[26]

Arm Propulsion

The beginner is just about ready to swim at this point of instruction. He first needs to get the feel of the propelling power of his arms before trying any complete swimming strokes. He may be taught to move his arms in dog paddle fashion with the head out of water as the face float glide is started. Or a partner may assist by placing the swimmer's legs under his arm pits while the swimmer propels his arms in dog fashion with the head up or down. The partner can walk with the swimmer or stand still.[27]

Changing Positions

A beginner gains confidence in himself by learning to change positions from a face float to a back float or the reverse. The turn from the prone position to the back may be done in two ways. First, simply roll over and tuck and thrust the feet forward. This roll simply involves twisting the hips, shoulders and head to the left or right while pulling one arm across the body in the same direction. The second way is more difficult. First, pull the knees up fast from the face float, throw the head back and thrust the legs forward. The hands can then balance the body in position.[28]

The Swimming Strokes

The following swimming strokes are used in the various classifications

26. Shaw, Troester, Gabrielsen, op. cit., pp. 268-269.
27. Ibid., pp. 268-269.
28. American Red Cross, Life Saving Textbook, p. 40.

in this program. The writer intends to follow this sequence in teaching swim-

ming strokes. (Dog Paddle, Elementary Back Stroke, Side Stroke, American Crawl,

Back Stroke and Breast Stroke.)

The Dog Paddle

The first stroke to be taught is the dog paddle because it is simple and

combines many of the beginners' skills.

The body should assume a prone position with the head out of water thus

lowering the hips and legs. The hands should reach well out in front, push-

ing the water down at first and then on under the body, with the arm alternat-

ing in a rotary manner. The legs are flexed considerably at the knees using a

flutter kick. The stroke should be an easy, relaxed motion. The instructor

will need to check the students to be sure they are breathing normally. Some

may be holding their breath which causes the swimmer to tighten up and tire

easily. The chin should be kept level with the surface of the water.[29]

Some of the faults to look for in the dog paddle are as follows:

1. If the arms recover on top of the water, there is too much splash

which may cause fear.

2. The arms may be slipping back with a resultant loss of power.

3. The body may be too erect.

4. The hips may be too high in the water.

5. The whole body may be too rigid.

6. The swimmer may be holding his breath, thus becoming tense.

7. The arm stroke may be too short.

8. The knees may be too stiff causing tenseness and poor coordination.

9. The knees may be bending too much, which makes for a bicycle motion.

10. The kick may be too short and fast causing the swimmer to tire.[30]

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29. U. S. Navy, op. cit., p. 85.
30. Shaw, Troester, Gabrielsen, op. cit., p. 271.

The Elementary Back Stroke

The elementary back stroke has proven an excellent stroke to teach beginners for several reasons.

1. It is easy to learn and simple to teach.

2. Normal breathing is possible because it allows the head to remain out of water.

3. It is less tiring than other strokes.

4. It lessens the chance of splashing water.

5. The swimmer may remain afloat for long periods of time using this stroke.

6. The stroke enables the swimmer to conserve energy.[31]

The beginners should be taught the frog kick as a part of this stroke either before taking the swimmers into the water or by practicing it in water at the edge of the pool by holding onto the gutter of the pool with the hands. This can be partially taught in a land drill in a reclining position. A partner may also hold the beginner's head up while he practices the kick. The knees are brought up toward the chest in a slightly outward position with the heels about twelve to fifteen inches apart and the toes pointed. As the kick is made, the toes turn outward and the feet sweep in an arch outward and then inward until they are again close together and straightened. The first part of the motion is called the recovery and the second the kick. The action should be performed continuously and smoothly. The arms start from the sides of the body with the palms down and pull up along the side of the body until they reach the arm pits. The arms make this motion before the legs start the first part of their action. At this point the hands are turned upward and are extended backward and outward making about a ninety degree angle, at the same time as the legs start their recovery. The swimmer then pulls with the arms and kicks at the same time thus

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31. <u>Ibid.</u>, p. 271.

gaining the propelling force of this stroke. The hand should be kept about six inches under water thus making it a shallow motion. The body should be completely relaxed at the end of the stroke for a moment before starting the motion again.[32]

The following are common faults in executing the elementary back stroke:

1. If the swimmer bends at the hips, the body will sink.

2. The knees may be coming up too straight instead of out to the side.

3. The hands may be recovering above the water.

4. The hands may be reaching back too far.

5. The kicking motion may be a sweeping and squeezing motion instead of a thrusting motion.

6. The swimmer may not be pausing at the end of the stroke.

7. The arms may be slipping back and leading too much causing loss of power.

8. The beginner may be holding his breath.[33]

The Side Stroke

The side stroke is probably used by more swimmers than any other stroke. It is restful and takes less effort to execute than most other strokes. It is basic in the knowledge of life saving.

The body is turned on its side to execute this stroke. The swimmer may start against the side of the wall of the pool or in waist deep water. As the swimmer pushes off on either side, the under arm is thrust forward and the upper hand is alongside the body with the palm of the hand on the upper part of the thigh. The head will be partially under water with the under ear completely in water and the face turned so it will be mostly out of water. The lower

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32. U. S. Navy, op. cit., pp. 88-90.
33. Shaw, Troester, Gabrielsen, op. cit., pp 272-273.

arm pulls down to a near vertical position then bends the elbow permitting
the hand to come up toward the armpit. The top arm should be pulled up along
the side of the body to a point where the hand covers about under the head
at the same time the under arm was making its initial move. Both arms are
then ready for the next move. The bottom arm now thrusts forward while the
top arm reaches downward and pulls back to its starting position. The legs
use a scissors kick with one leg bent forward. Most people prefer to bend
the top leg forward. For this method the legs are extended and together.
The knees then are brought up keeping the heels underneath. The legs separate
as they are part way up, the top leg making a forward step motion. The lower
leg thrusts backward. Then the legs are squeezed together thus gaining power
from the sole of the top foot and the instep of the bottom foot. The coordi-
nation of the legs is a bit difficult at first, but the swimmer will soon get
the feel of the stroke. The bottom arm pulls at the same time the legs and
top arm are recovering. The bottom arm is thrust forward as the kick is made.
When the kick and arm thrust are completed, the glide is accomplished. One
or two counts of time should elapse during the glide. The breathing should
be kept normal usually taking the breath while the lower arm is pulling and
exhaling slowing as the leg kicks and the boby glides.[34]

The common faults in executing the side stroke are as follows:

1. The trunk may be bending too much.

2. The head may be too deep in the water.

3. The glide may not be taking enough time.

4. The body may not be completely on its side.

5. The body may be sinking too low in the water.

6. The swimmer may be breaking the surface with the kick or arms.

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34. American Red Cross, Textbook, op. cit., pp. 120-121.

7. There may be too much bobbing motion, the cause of which may be pushing down with lower hand instead of pulling back.

8. The top arm may be sweeping out too far instead of back.[35]

Drills in kicking and timing may be practiced on land to gain more skill. If benches are available, they may be used for practice of kicking. A standing position proves better for practice of the arm stroke.[36]

Side Stroke Variations

The single overarm stroke is an easy modification of the side stroke. This is performed in much the same manner as the side stroke except that the top arm recovers above the surface of the water. The hand is placed in the water just beyond the face and then pulled back as in the side stroke. The kick is not changed. A slight flutter kick between each scissors kick gives greater power to some swimmers. The arm needs to be very relaxed with elbow bent and fingers just out of water as the arm recovers in this stroke.[37]

American Crawl

The American crawl stroke is an apparent outgrowth of the Austrailian crawl and trudgen stroke. The Japanese developed a crawl which is a modification of the American crawl. Basically the strokes are the same, both using a flutter kick and a double overarm stroke. The difference lies in physical aspects growing out of differences in the races. The crawl stroke is the most efficient of all strokes if it is performed correctly but is also not as easy to learn as the other strokes for the average swimmer.[38]

The body lies in the water completely submerged except the head which is

35. Shaw, Troester, Gabrielsen, op. cit., p. 275.
36. Ibid., p. 275.
37. Ibid., p. 275.
38. American Red Cross, Textbook, op. cit., pp. 138-144.

under water to the ears and in a prone position. The arm stroke, leg kick and breathing will each be discussed separately to better understand how to execute this stroke.

The arms alternate pulling or "pressing" as some call it, with the arms slightly bent. Keeping the fingers on his hand slightly cupped, the swimmer needs to feel he has taken hold of something and is pulling the body over the spot. The swimmer will lose power if he attempts to pull his arms through the water too fast. The body will have a tendency to roll slightly to the right if the left arm strokes first. The pull of the hand is brought back to directly below the mid-waist. Then the left shoulder lifts slightly permitting the arm to be pulled out of the water elbow first. Then the hand is brought forward quickly remaining low with the fingers almost scraping the surface. This motion reaches to a point twelve to fifteen inches directly in front of the shoulder. Then the hand is placed in the water and allowed to glide forward very relaxed. The right arm begins its pull at the time the left hand is being placed in the water.[39]

Some arm faults in the American crawl are:

1. The arms may be slapping too much water.

2. The arms may be reaching out too far before being placed in the water.

3. The swimmer may be slipping his arms by pulling backward in a zig-zag motion.

4. The arms may be recovering too high out of the water.

5. The swimmer may be losing power in the pull by bending the wrist back instead of forward.

6. The body will weave or sway if the arms are permitted to cross over in front of the face when brought forward on the recovery.

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39. Ibid., pp 138-144.

7. The arms may be pulling too far back.

8. The swimmer may be removing the hand from the water before the elbow.

9. The arm in front which is gliding may be starting the pull too soon.

10. The arms may not be relaxed.[40]

There should be six kickes, three with each leg for a "six beat" kick to every complete revolution of the arms. To get the feel of this rhythm, the swimmer may count "one, two, three" kick every time the hand is placed in the water on the recovery. For one complete revolution of the arms this makes six counts. It is really waltz tempo and waltz music may be used in teaching this rhythm. Some speed swimmers may use an eight beat kick and distance swimmers may use a four beat kick.

The legs need to be straight but not rigid. While the propelling force comes mostly from the upward beat, power is gained from both the up beat and the down kick. The heel should just break the surface of the water.

The flutter kick will spread only about twelve to fifteen inches for average swimming. The hip, knee and ankle joints need to be loose.[41]

Faults to look for in the American crawl kick are:

1. If legs are too rigid, fatigue results.

2. The down beat may be emphasized too much.

3. The kick may be too wide.

4. The swimmer may not be pointing his toes.

5. The knees may be bending too much.

6. The kick may be too high causing foot to go out of water.[42]

Crawl stroke breathing is either performed on the right or the left side. When the hand on the side on which the breath is to be taken reaches the end

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40. Shaw, Troester, Gabrielsen, op. cit., pp. 278-279.
41. Ibid., pp 278-279.
42. Ibid., pp. 278-279.

of its pull, the face is rotated toward that side until the mouth is just above

the surface line. The head should be turned quite slowly and smoothly. The

head should be somewhat isolated from the shoulders in a sense, otherwise stiff-

ness of the neck will result. Normal breathing should be maintained. Inhalation

should be made when the head is rotated to the side and exhalation should start

immediately after the face is returned to the water. Breathing should be per-

formed only through the mouth. Air cannot be taken in through the nose fast

enough to be desirable. Mouth and nose exhalation has not proved to be as

efficient as mouth exhalation alone.[43]

Some common faults in breathing in the American crawl are as follows:

1. The swimmer may be holding his breath while under water instead of

breathing in normal rhythm.

2. The swimmer may be nose breathing.

3. Too much air may be inhaled.

4. The breathing may be too late.

5. The body may be rolling due to turning the head too much to the side.

6. The neck may be too rigid.[44]

Here are some suggestions for teaching the crawl. The arm movement, the

leg kick and breathing must be individually mastered but also coordinated.

Each skill must be worked on separately and then put together.[45]

Proper technique in the use of the arms and legs may be gained by practic-

ing on land. From a standing position with the feet well apart and the trunk

bent forward almost parallel with the ground, the movement of the arms and the

breathing can be practiced. Either large or small groups may work in this

manner.

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43. Ibid., pp. 278-279.
44. Ibid., p. 280.
45. Ibid., p. 280.

The swimmer may practice the leg kick by lying prone on the ground or deck of the pool. If a bench or stool is available, both arms and legs can be practiced together.[46]

The breathing process can best be practiced by standing in waist deep water either bobbing the head or placing the face in the water and rhythmically going through the process of inhaling and exhaling.

The arm stroke may be practiced in water by pushing off from the side wall or bottom into a face float position. The swimmer may travel as far as he can holding his breath. By keeping the eyes open the swimmer can practice placing the hands in the water at the right spot and developing the glide so necessary for relaxation.

The flutter board may be employed as a great aid in teaching the kick. The swimmer may keep his head out of water with this device and does not use the arms for assistance. The board may be used in relay fashion for a class. The kick may also be practiced while holding on to the side of the pool while kicking. The kick may also be taught with the swimmer in a prone float position with the face in the water as long as the breath is held. Beginners especially are helped by this method.[47]

Some of the important points to remember about the crawl are:

1. The body must be relaxed for a proper execution of the stroke.

2. Rhythmic breathing is a key to relaxed swimming.

3. The ankles should be loose when kicking.

4. It is essential that the arms, legs, and breathing are coordinated for real effectiveness and relaxation.

5. Breathe in and out through the mouth.

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46. Ibid., p. 280.
47. Ibid., pp. 280-281.

6. Practice swimming long distances to develop a good crawl stroke.

7. It will take time to develop the muscles employed in the flutter kick since they are muscles that are not used as much in everyday activities. Kicking itself is the best way to do this.

8. Stretching exercises should be part of the training exercise to gain good flexing of the joints which is essential to good swimming.[48]

American Crawl Variation (Trudgen Stroke)

This variation is an easy modification of the crawl stroke. This is performed in much the same manner as the American crawl except the leg kick is in a scissors manner. Their is one scissors kick to each arm cycle. If a brief glide is held following the execution of the kick, breathing is made much easier.[49]

The Back Stroke

The back stroke in competition is really the crawl stroke inverted. The breathing and the kick differ, but the timing is much the same. The body is completely submerged except for the head which is about halfway under water. The body should be straight with the chin forward and resting on the surface just enough so that the swimmer may see his feet.

Starting with the arms at the side, the starting arm should be taken out of the water cleanly with the shoulder being lifted a little to facilitate this movement. Keeping the arm straight but relaxed, it is extended over the head at about a forty-five degree angle from the body. As soon as this arm drops into the water, the other arm starts its movement by gently lifting the shoulder. By lifting the shoulder the usual resistance of shoulder and arm when submerged is eliminated. The palm of the hand should be down as the hand drops into the

48. Ibid., pp 280-281.
49. U. S. Navy, op. cit., pp. 105-106.

water. The swimmer should have the feel of anchoring his hand in the water and swimming by it. The pull back is shallow. The hand too must remain close to the surface of the water, not more than six to ten inches below.[50]

Faults commonly made by the arms in the back stroke are as follows:

1. The hands reach too far back, called "overthrowing".

2. The arms may be pulling too deep causing the body to sway and lose power.

3. If the arms recover too straight overhead, water will be splashed in the face, affecting breathing.

4. The arm may be bending too much during the pull causing "slipping".

5. The elbow may be bending too much on the recovery.[51]

The back flutter kick is the same as the crawl flutter kick inverted. This can be practiced on land with the use of a bench or hanging the legs over the edge of the pool. The six beat kick is again used with the rhythm between arms and legs exactly the same. Power comes mostly from the instep on the upbeat. The legs should be kept relaxed with the toes turned in slightly. The toes should break the surface of the water just slightly on the upbeat. No power would be gained by kicking air. There should be three leg kicks to each arm stroke.[52]

The following are some faults found in the back leg kick:

1. The knees may be bending too much.

2. The toes may not be pointed.

3. The trunk of the body may be bending causing the body to sink in the middle.

4. The kick may be too wide.

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50. Ibid., pp. 109-110.
51. Shaw, Troester, Gabrielsen, op. cit., p. 283.
52. U. S. Navy, op. cit., p. 111.

5. There may be lack of flexibility because legs are not relaxed.

6. The legs and arms may not be coordinated.[53]

Here are some suggestions for teaching the back stroke. The swimmer needs to get the feel of the power possible through kicking his legs. The group may push off the bottom or side wall and start the flutter kick with the hands at the side, the trunk almost straight and the chin forward. This should be practiced until done well. Then the swimmers may extend their hands overhead clasping hands together. Since this is more difficult, the other kick should be mastered before trying this. The flutter board is valuable in teaching this kick. The board should be placed on the swimmer's chest with the front end under his chin and the arms clasped over the top of the head. The head and shoulders are thus supported permitting the swimmer to concentrate on the kick.

The coordination of the arms and legs is a must for this stroke and need to be emphasized by the instructor. The swimmer may practice swimming to a waltz tempo.

As the hand is placed in the water, count one and follow with two, three as the legs continue their beat. Repeat the count for each arm, accenting the one count. As the count is being made, the legs can be watched performing their kick. This stroke needs to be executed very slowly at first and quickened as skill develops. Waltz music may be employed or counting by the instructor.

The swimmer must be checked to see that he is breathing regularly and relaxed. By swimming very slowly, breathing can be developed.[54]

The Breast Stroke

Although the breast stroke is one of the oldest of the strokes, its modern version is considerably changed and improved. The butterfly version

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53. Shaw, Troester, Gabrielsen, loc. cit., p. 283.
54. Ibid., p. 283.

is prevalent with speed swimmers. The breast stroke is a restful stroke when correctly executed. It does have difficult timing and thus is not taught until other strokes have been mastered. It is of great use in life saving and distance swimming.

The body is in a prone float position for this stroke with the chin out of the water, the arms extended forward just under water and the legs fully extended about ten inches under water.

The arms are extended apart slightly with the palms downward. The pull back is to the side and partly down. On this pull of the arms the head comes up and the breath is taken. The hands are brought back to about the upper chest. The elbows bend at this point and the hands are brought under the neck ready for the forward thrust which is accomplished smoothly with the palms down.[55]

The legs are fully extended back for the start of this stroke. The legs start their movement by pulling up the knees at the same time as the arms pull down. The knees should be well spread, the toes pointed, with the heels moving apart as much as ten to twelve inches. Turn the feet so that the toes are out and the sole of the foot is ready to push the water just before the kick is started. Much of the power is gained here from the legs squeezing together and the body becomes fully extended. The kick is a sweeping movement. Then the glide comes in to provide rest for the swimmer.[56]

The following are some of the common faults in swimming the breast stroke:

1. The legs and arms are not coordinated.

2. The arms may be pulling too deep.

3. The legs may be performing a scissors instead of a frog kick.

4. The arms may be failing to glide forward because the pull has been started too soon.

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55. Ibid., pp. 284-286.
56. U. S. Navy, op. cit., pp 91-96.

5. There may be a bobbing motion because of the head being too far under during the glide.[57]

The butterfly breast stroke derives its name from the motion of the arm which recovers out of water. The kick remains about the same resembling more of a thrust, and it is shorter. A "fishtail" downward movement of the legs is another version of the butterfly breast stroke.

The arms are thrown forward on the recovery landing in the water about twenty inches apart. With great force, the pull is straight down causing the body to leap in the water.

The legs are straight as the arms pull through the water. At the end of the arm pull the legs quickly recover and kick as the arms are starting their over-water recovery. This makes the legs an anchor from which the forward leap is made.[58]

Land drills can be of great value in teaching the swimmer to execute the breast stroke correctly. A group may work together starting from a standing position and bending forward slightly. Using three counts the drills should be directed as follows:

1. With hands together in front of chest from the bending position, thrust arms forward and upward until fully extended.

2. Pull arms downward and sideward to shoulder level.

3. Squeeze elbows against sides and return hands to beginning position.

The group may sit on the edge of the pool to practice the leg movements This kick should be directed in a two count rhythm.

1. Pull knees up.

2. Sweep legs outward and bring back together.

57. Shaw, Troester, Gabrielsen, loc. cit., pp. 284-286.
58. Ibid., pp. 286-287.

Each leg movement can be practiced separate by assuming a standing posi-
tion. The timing between the legs and arms can be taught on land by kicking
with one leg while the arms are performing their movements. Two counts should
be taken for this from a starting position with hand overhead.

1. Pull arms down, bringing one leg up at same time.

2. Thrust arms forward, kicking at the same time. Repeat ten times with
one leg then change to the other leg.[59]

Additional Swimming Skills

Floating

The buoyance of the body is the major factor in floating. There are two
basic floating positions, the horizontal and the vertical. It is difficult to
float completely motionless in fresh water, and few people can do it. In salt
water the density of the water makes it much easier to float. In teaching
floating remember to direct swimmers to fill the lungs with as much air as pos-
sible. The body should be relaxed in the proper position with the arms being
outstretched.[60]

Sculling

Actually many people perform this motion when they are asked to float.
It is simple to learn and useful to know. The body is on the back in a
horizontal position. The hands are next to the body and the face is out of
the water. The hands press down on the water in a rotating manner to make
the sculling movement. This action of the hands may well be demonstrated by
placing the palm of the hand on top of a soft ball about twelve inches in
circumference. By rolling the ball back and forth about six inches each
way you have simulated the sculling movement.

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59. Ibid., pp. 286-287.
60. U. S. Navy, op. cit., pp. 79-80.

The legs remain extended and relaxed during the hand movement. If begin-
ners find it hard to stay afloat with this movement, they may add a slow flutter
kick.[61]

Finning

This movement is very similar to sculling with the main difference being
in the way the hands move. It is a good skill to learn to lead up to the elemen-
tary back stroke. The arms start from an extended position along the side of the
body and are brought up to a position even with the top of the hips. The hands
then turn outward and slide away from the body for a distance of twelve to fifteen
inches. The hands then push down and inward forcefully to the side of the body.
This motion is repeated rapidly as the motion of the lateral fins of a fish. The
legs may be used if desired in a vertical scissors or frog kick or just a flutter
kick.[62]

Treading Water

This skill should be mastered by every swimmer as it may be used in a
number of different ways. It is used extensively in life saving measures and
is an excellent way to support the body while stationary. Treading water is
one of the "support" skills. The arms may or may not be used.

The treading motion is very similar to the sculling or finning movement on
the back but is executed in a vertical position. The arms are extended more to
the side but the motion is the same side to side, downward pressing movement of
sculling. The scissors kick, frog kick or rotary kick have proved most success-
ful. The kick should be at a fairly rapid but relaxed rate.[63]

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61. Shaw, Troester, Gabrielsen, op. cit., p. 289.
62. American Red Cross, Textbook, op. cit., pp. 35-36.
63. U. S. Navy, op. cit., pp. 82-83.

Surface Diving

This is a valuable skill to know as it enables the swimmer to get under water. It is important for life saving and for the execution of strokes which start from an underwater position. It may either be performed from a treading position or from a slow swimming position. From the treading position the body should be brought up to a prone position before attempting the dive. Either a tuck or a pike body position may be employed for the dive.

If using the tuck position, the initial movement is with the arms and head. If arms pull back as in the breast stroke and the head is submerged in front. The knees are drawn up at this moment for the tuck. The arms then continue their pull and the legs are thrust back up above the surface of the water so that the body will slide down to a depth of about six to eight feet. The important thing to check here is the arm pull. It should extend down to the knees. If the swimmer wants greater depth, he should bring his arms forward and take another stroke in a manner similar to the breast stroke recovery. The legs may employ a scissors, frog or flutter kick to assist. The swimmer should keep his eyes open under water to maintain his direction.

In the pike surface dive the knees are straight, requiring good hip action. Otherwise the motions are the same as the tuck dive.

A feet first entry into the water may also be employed. Starting from a vertical position simply pull the arms from the side upward toward the surface. The palms of the hands are turned toward the surface. To get greater depth, repeat the action of use of an overhead sculling motion with the hands.[64]

Bobbing

Bobbing is valuable as a means of teaching proper breathing and familiarity of the water and as a life saving technique. It may be performed in

64. Shaw, Troester, Gabrielsen, op. cit., p. 290.

shallow or deep water. If in shallow water, the swimmer must squat to get

under. In deep water a push off from the bottom will be necessary to return

to the surface. The arms will assist in both ascent and descent in the deep

water situation.

The swimmer takes a breath, goes under water, lets the breath out under

water, returns to the surface for another breath and repeats. The ascent

should start while the breath is being exhaled so that he will not have to

hold his breath until he reaches the surface. This should be a normal breath-

ing pattern.

The movement should be repeated for two to three minutes at a time. If

there is difficulty in this execution it can probably be traced to faulty

breathing.[65]

<u>Summary</u>

In the chapter the writer has explained the suggested swimming program.

Instructional planning is an important phase of any teaching process. The

material to be taught must be fully understood by the instructors before actual

teaching of students begins. Along with the knowledge of what is to be taught

must be a thorough understanding of how this material is to be taught. Good

instructional planning is a basic essential in the good swimming program.

Safety and health factors are also very important in a good swimming pro-

gram. The safety and health of the individual must be of extreme importance to

the instructors. The instructor must always attempt to have the safest and most

healthful situation that is possible.

The various classifications of this program are as follows: Beginners, Low

Intermediate, High Intermediate and Advanced. As the students progress and pass

one classification, they should be allowed to go on to the next classification.

There are several ways of measuring success   The easiest measurements are

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65. U. S. Navy, <u>op</u>. <u>cit</u>., pp. 118-119.

speed and endurance. In this program, the student must demonstrate his ability to perform the skills involved in order to progress from one classification to the next higher group. In teaching swimming, the instructor should make sure that the student has qualified himself to go on to the next classification. The student must meet the mimimum requirements of the test or else he should remain in his present classification. To advance the student before he has passed the test, may place him in a situation that could have serious psychological and physiological implications.

There are several special techniques and aids that an instructor can use in teaching swimming. Artificial aids such as kick boards and life jackets have proven successful in teaching swimming. However, they should not be relied upon too much. Music and motion pictures are also acceptable aids. Young children sometimes may learn better in beginning swimming by dramatizing different animals.

The swimming strokes used in this program and explained in this chapter were as follows: Dog Paddle, Elementary Back Stroke, Side Stroke, American Crawl, Back Stroke and Breast Stroke. Additional swimming skills also found in this chapter were floating, sculling, finning, treading water, surface diving and bobbing.

IV. Summary

The alarming number of water accidents and drownings annually presents a problem of increasing importance. The hazards in this area are many and great, the preparation needed to understand and adjust to them so important, that the home, unaided, cannot prepare the individual adequately to contend with the problems. The school should assume the important responsibility of instructing the students to swim so that they may take their place in society prepared to take care of themselves in the water and help others if needed.

This study has attempted: (1) to justify the need for a good instructional swimming program administered by the elementary and junior high schools; (2) to stress the general objectives of such a swimming program; and, (3) to suggest a definite swimming program which is designed to fulfill the needs of pupils from grade one through grade nine.

After a careful review of the available literature it was determined that a swimming program for elementary and junior high school should have three basic objectives. The program should: (1) develop a high degree of water safety; (2) develop a recreational potential; and, (3) develop better health among individuals.

In fulfillment of these objectives the suggested swimming program for elementary and junior high schools should consider an instructional plan necessary to meet the requirements of the objectives. This instructional plan should stress an understanding of the activity as to its origin, value, skills, methods of teaching and class organization. Emphasis should be placed upon the factors of safety, health, and sanitation.

The suggested program is designed to classify students into four groups of degree of skill. These groups are beginners, low intermediates, high intermediates, and advanced swimmers. All students will be classified as beginners until they can demonstrate the skills required to pass the tests of each group. Upon passing these requirements, the student will be moved into the next higher group. The student will progress according to his ability until he qualifies as an advanced swimmer.

Each of the four groups consists of various skills applicable to that group. The test for promotion to the next higher group is based upon the student's ability to demonstrate the skill satisfactorily and to have the endurance to perform the required test.

The skills discussed in this paper are those skills that the writer feels are necessary for the fulfillment of the requirements of the various stages of development. The skills are explained in order of their use in the program.

The paper was motivated by the writer's interest in water safety and swimming activities. It is hoped that the suggested program of swimming in elementary and junior high schools will serve to promote a safe, enjoyable experience for all youth.

APPENDIX

BEGINNING SWIMMER SKILL SHEET

(For use by currently authorized Red Cross water safety instructor)

)Use the Instructor's Manual -- Swimming and Diving Courses
(ARC 1042) for teaching this course.

)Any person is qualified for a certificate when he has
completed this course in a satisfactory manner.

)Use check (✔) for satisfactory performance in each test
item. Check off items accomplished as course progresses.

)Final grades for those completing the course should be:
E - excellent; G - good; P - passing; F - failure.

)Submit two copies of this form to the chapter. Retain
one copy for your records.

NAME AND ADDRESS
(Type or print)

Column headers (diagonal):
BREATH HOLDING · RHYTHMIC BREATHING · PRONE FLOAT · PRONE GLIDE · BACK FLOAT · BACK GLIDE · KICK GLIDE (ON FRONT) · KICK GLIDE (ON BACK) · ARM STROKE (BEGINNER) · FINNING · COMBINED STROKE (FRONT) · COMBINED STROKE (BACK) · CHANGE OF DIRECTION · TURNING OVER · LEVELING OFF · JUMP (INTO WAIST-DEEP WATER) · JUMP (INTO DEEP WATER) · PLAIN FRONT DIVE · 1st COMBINED TEST · 2nd COMBINED TEST · FINAL GRADE

If you are teaching at an isolated place not serviced by a chapter, submit this skill sheet to the appropriate area office. By writing in advance to the area director of First Aid and Water Safety, a special arrangement may be made whereby a supply of blank certificates may be obtained for direct issuance. The same arrangement may be made with a chapter servicing a camp far from its home office.

GIVEN AT: (Camp, club, school, pool, beach, etc.)	LOCATION (City and state)	DATE COURSE BEGAN	DATE COURSE COMPLETED

ND ADDRESS OF ORGANIZATION FOR WHICH COURSE WAS CONDUCTED | SIGNATURE OF INSTRUCTOR

ND ADDRESS OF CHAPTER

FOR CHAPTER OR AREA USE

CERTIFICATES ISSUED:

USE BY / E ONLY	CHAPTER CODE	INSTRUCTOR NUMBER	ORGANIZATION	TYPE AUTH.	TYPE CLASS	NO. OF CERTIFICATES ISSUED	DATE CLASS COMPLETED
	GROUP STATE CHAPTER			35	01		

INTERMEDIATE SWIMMING SKILL SHEET

(For use by currently authorized Red Cross Water Safety instructor)

se the <u>Instructor's Manual--Swimming and Diving Courses</u>
ARC 1042) for teaching this course.

ny person is qualified for a certificate when he has
ompleted this course in a satisfactory manner.

lse check (√) for satisfactory performance in each test
tem. Check off items accomplished as course progresses.

final grades for those completing the course should be:
: - excellent; G – good; P – passing; F – failure.

lubmit two copies of this form to the chapter. Retain
ne copy for your records.

NAME AND ADDRESS (Type or print)	SCISSORS	FLUTTER	BREAST STROKE	SIDE	HAND-OVER-HAND	BREAST	ELEM. BACKSTROKE	SELECTED STROKE -- 50 YDS.	TURNING -- 100 YDS.	FLOATING (closed course)	SCULLING -- 1 MINUTE	TREAD WATER 10 YDS.	UNDERWATER SWIMMING -- 1/2 MINUTE	STANDING SWIMMING	RUNNING FRONT DIVE	JUMP -- DEEP WATER	5-MINUTE SWIM	FINAL GRADE

(LEG STROKES: SCISSORS, FLUTTER) (ARM STROKES: BREAST STROKE, SIDE)

If you are teaching at an isolated place not serviced by a chapter, submit this skill sheet to the appropriate area office. By writing
in advance to the area director of First Aid and Water Safety, a special arrangement may be made whereby a supply of blank certificates
may be obtained for direct issuance. The same arrangement may be made with a chapter servicing a camp far from its home office.

GIVEN AT: (Camp, club, school, pool, beach, etc.)	LOCATION (City and state)	DATE COURSE BEGAN	DATE COURSE COMPLETED
ID ADDRESS OF ORGANIZATION FOR WHICH COURSE WAS CONDUCTED	SIGNATURE OF INSTRUCTOR		
ID ADDRESS OF CHAPTER	FOR CHAPTER OR AREA USE		
	CERTIFICATES ISSUED:		

USE BY CE ONLY	CHAPTER CODE			INSTRUCTOR NUMBER	ORGANIZATION	TYPE AUTH.	TYPE CLASS	NO. OF CERTIFICATES ISSUED	DATE CLASS COMPLETED
	GROUP	STATE	CHAPTER			**35**	**02**		

FORM 1383 (REV. 9-54)

THE AMERICAN NATIONAL RED CROSS
SWIMMER SKILL SHEET
(For use by currently authorized Red Cross water safety instructor

se the Instructor's Manual—Swimming and Diving Courses
(ARC 1042) for teaching this course.

ny person is qualified for a certificate when he has
ompleted this course in a satisfactory manner.

se check (✓) for satisfactory performance in each test
tem. Check off items accomplished as course progresses.

inal grades for those completing the course should be:
-excellent; G-good; P-passing; F-failure.

ubmit two copies of this form to the chapter. Retain
ne copy for your records.

NAME AND ADDRESS (Type or print)	BREAST STROKE -- 100 YDS.	SIDE STROKE -- 100 YDS.	CRAWL, BACK CRAWL, OR TRUDGEN CRAWL -- 100 YDS.	ON BACK (LEGS ONLY) -- 50 YDS.	TURNS (ON FRONT, BACK, SIDE)	SURFACE DIVE	TREAD WATER	PLUNGE DIVE	RUNNING FRONT DIVE	10-MINUTE SWIM	FINAL GRADE

if you are teaching at an isolated place not serviced by a chapter, submit this skill sheet to the appropriate area office. By writing
in advance to the area director of First Aid and Water Safety, a special arrangement may be made whereby a supply of blank certificates
may be obtained for direct issuance. The same arrangement may be made with a chapter servicing a camp far from its home office.

E GIVEN AT: (Camp, club, school, pool, beach, etc.)	LOCATION (City and state)		DATE COURSE BEGAN	DATE COURSE COMPLETED
AND ADDRESS OF ORGANIZATION FOR WHICH COURSE WAS CONDUCTED	SIGNATURE OF INSTRUCTOR			
AND ADDRESS OF CHAPTER	FOR CHAPTER OR AREA USE			
	CERTIFICATES ISSUED:			

USE BY A ICE ONLY ▶	CHAPTER CODE			INSTRUCTOR NUMBER	ORGANIZATION	TYPE AUTH.	TYPE CLASS	NO. OF CERTIFICATES ISSUED	DATE CLASS COMPLETED
	GROUP	STATE	CHAPTER			35	03		

FORM 1384 (Rev. 6-55)

EXAMINATION RECORD - LIFESAVING AND WATER SAFETY

CHECK ONE: ☐ JUNIOR ☐ SENIOR

NAME (Print)	ADDRESS (Print)	AGE	GRADES			TOTAL	CHECK ONLY IF ORDERING FROM AREA OFFICE	
			CLASS WORK - Max. 40 Min. 30	KNOW-LEDGE - Max. 20 Min. 15	PRACT-ICAL WORK - Max. 40 Min. 30		PIN Junior .25 Senior .50	EMBLEM Junior .25 Senior .50

(OVER)

TO BE FILLED IN BY THE INSTRUCTOR

ORGANIZATION OR SCHOOL		CITY AND STATE	

DATE OF FIRST CLASS PERIOD	DATE OF LAST CLASS PERIOD	LENGTH OF EACH CLASS PERIOD	NUMBER OF CLASS PERIODS

NUMBER ENROLLED	NUMBER EXAMINED	NUMBER PASSED	NUMBER FAILED

SEND CERTIFICATES AND INSIGNIA TO: ▶ NAME AND ADDRESS

SIGNATURE OF INSTRUCTOR		ADDRESS	DATE

NAMES AND ADDRESSES OF ASSISTING INSTRUCTORS

TO BE FILLED IN BY LOCAL RED CROSS CHAPTER

CHAPTER NAME	CHAPTER ADDRESS

CLASS NUMBER	DATE FORWARDED

REMARKS

SIGNATURE OF CHAPTER REPRESENTATIVE	TITLE

TO BE FILLED IN BY AREA OFFICE

CERTIFICATES SENT TO:	STATISTICS RECORDED	FILE UNDER

INSIGNIA SENT TO:		DATE

REMARKS

INSTRUCTIONS FOR JUNIOR COURSE

1. To be eligible for a certificate students must have completed a minimum of 15 hours of instruction (including final examination) unde authorized American Red Cross water safety instructor.
2. Prepare THREE copies of examination records and turn them in to your chapter. If in camp or isolated from chapter, send all copies records direct to the area office.
3. Print the name and home address of each student. The name as given will appear on the certificate.
4. List the ages or grades in school of students (12 years minimum, 15 years maximum, or seventh to tenth grades inclusive).
5. Classwork Grade Minimum grade required for passing, 30; maximum, 40. Grade based on satisfactory completion of classwork, attend attentiveness, and informal tests. See Lesson XIV, Junior Course, Instructor's Manual, Life Saving and Water Safety Courses (ARC 1030
6. Knowledge Grade Minimum required for passing, 15; maximum, 20. Grade established by oral test. For details concerning test, see Instructor's Manual, Life Saving and Water Safety Courses (ARC 1030).
7. Practical Work Grade Minimum for passing, 30; maximum, 40. Grade established by practical test. For items, see Junior Examinatio Instructor's Manual, Life Saving and Water Safety Courses (ARC 1030).
8. Final Grade Final grade is made up of total of three preceding grades.
9. Awards Emblems and pins can be purchased from the local chapter and/or the appropriate area office.

INSTRUCTIONS FOR SENIOR COURSE

1. To be eligible for a certificate students must have completed a minimum of 17 hours of instruction (including final examination) unde authorized American Red Cross water safety instructor.
2. Prepare THREE copies of examination records and turn them in to your chapter. If in camp or isolated from chapter, send all copies records direct to the area office.
3. Print the name and home address of each student. The name as given will appear on the certificate.
4. List the ages or grades in school of students (minimum age 16 years, or in or above the eleventh grade in school.)
5. Classwork Grade Minimum grade required for passing, 30; maximum, 40. Grade based on satisfactory completion of classwork, attend attentiveness, and informal tests. See Lesson XIV, Senior Course, Instructor's Manual, Life Saving and Water Safety Courses (ARC 10:
6. Knowledge Grade Minimum required for passing, 15; maximum, 20. Grade established by written test. For details concerning test, se Senior Examination, Instructor's Manual, Life Saving and Water Safety Courses (ARC 1030).
7. Practical Work Grade Minimum for passing, 30; maximum, 40. Grade established by practical test. For items, see Senior Examinatio Instructor's Manual, Life Saving and Water Safety Courses (ARC 1030).
8. Final Grade Final grade is made up of total of three preceding grades.
9. Awards Emblems and pins can be purchased from the local chapter and/or the appropriate area office.

FOR USE BY ▶ AREA OFFICE ONLY	CHAPTER CODE			INSTRUCTOR NUMBER	ORGANIZATION	TYPE AUTH.	TYPE CLASS	NO. OF CERTIFICATES ISSUED	DATE CLASS CON
	GROUP	STATE	CHAPTER			35			

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Vita

The writer, Paul W. Foreman, was born in Charleston, Illinois, May 22, 1931. He was educated in the elementary schools of Toledo and Fisher, Illinois. After completing the ninth year at Fisher High School, the family moved to Charleston. The rest of his formal education was completed here. He spent three years at Eastern State High School and four years at Eastern State College, receiving the Bachelor of Science degree in 1953. After a year of military service, he enrolled in the graduate school at Eastern State College starting work toward a Master of Science in Education degree. In 1955 the course work was completed and work began on this paper. In the fall of 1955, the writer started teaching Health, Physical Education, and acting as an assistant coach at Charleston Community High School.