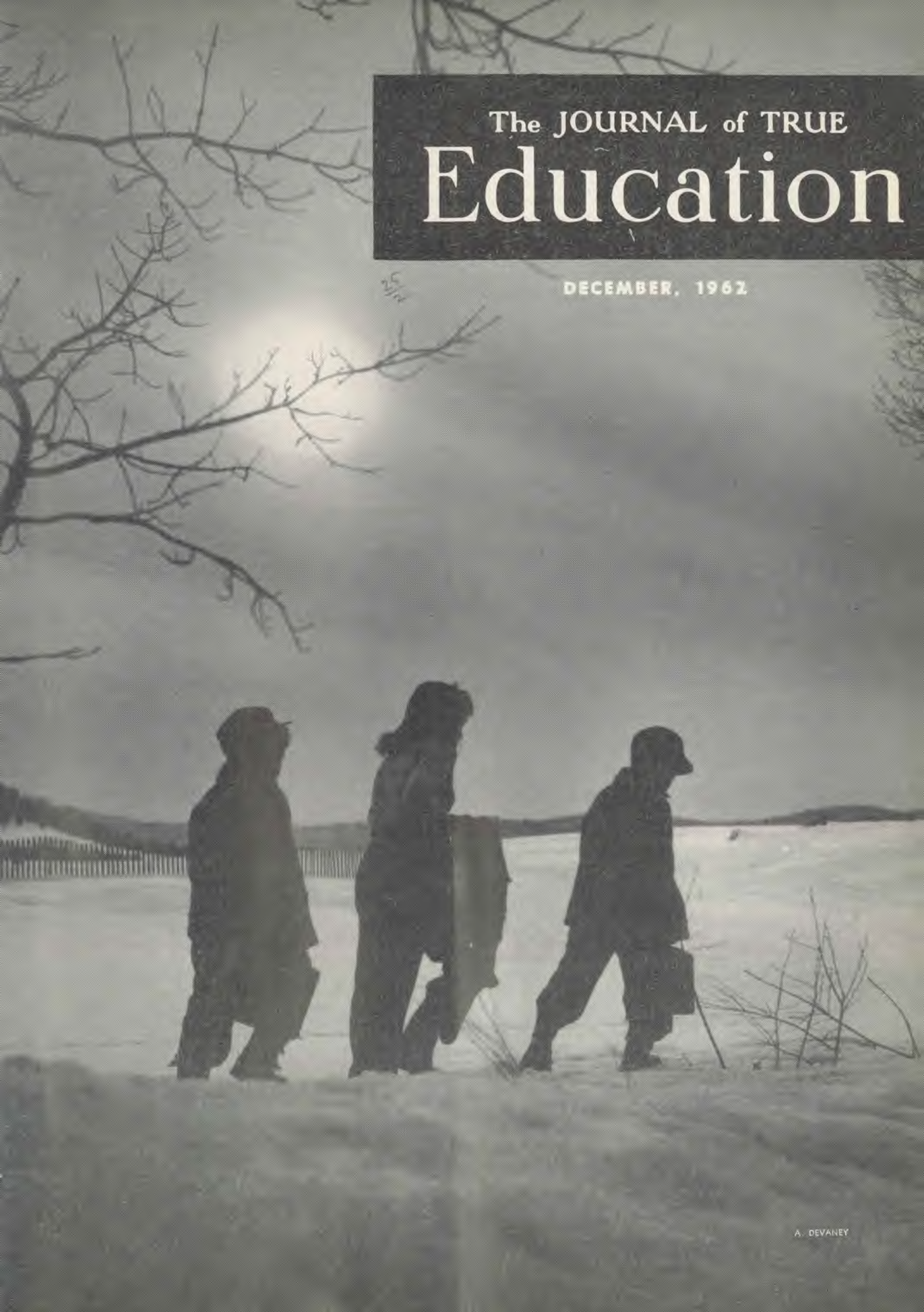

The JOURNAL of TRUE Education

DECEMBER, 1962

A. DEVANEY

The JOURNAL of TRUE

Education

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* By request we are designating the classification of articles listed in our table of contents: (1) Elementary, (2) Secondary, (3) College, (4) General, (5) Home and Parent Education.

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Editorial

The Problem of Undergraduate Professional Degrees

IN THE editorial of the April, 1962, issue of THE JOURNAL OF TRUE EDUCATION we commented on the fact that the development of new materials and techniques in engineering is rendering engineers obsolete and behind the times if they do not engage in continual, well-planned efforts to keep abreast of the changes in the profession; and we raised the question whether in some of the curricula we are giving our young people an obsolete training. Now another development in engineering education has implications that should be noted by all of us in general education.

Yale University has published a blueprint calling for a complete revision of its engineering education program. Under this revised approach the undergraduate division of the School of Engineering will be abolished, and undergraduate engineering students will be enrolled as regular students in the Liberal Arts undergraduate college, with engineering as their major. A department of engineering and applied science will be added as a regular department of the faculty of arts and sciences.

The philosophy back of this change is that developments in engineering are taking place so fast that the modern engineer must be given a broad education in natural and social sciences instead of a narrow education based on a large number of technical courses. The committee that planned this change stated that the useful life of technical education had become shorter than the professional lifetime of an individual, so that basic engineering education must provide "the tools for learning in contrast to the tools for earning a living." Their opinion was that current engineering education provides an insufficiency of science background and an inadequate amount of general education for engineering undergraduates. The need for today, they say, is to give the engineering student a broad education to make him more of a scientist so that he can convert new knowledge in engineering into his repertoire of skills and approaches to engineering problems. By offsetting this inadequacy of general education and helping him develop a problem-solving approach to his trade, the new engineer will be able to adjust himself better to the constant changes in his profession than the present engineering graduate is able to do. With the broader background in general education, the Yale program also calls for the development of an undergraduate course in depth on the nature and history of engineering and the early introduction of students to the numerical analysis and the use of high-speed digital computers.

Of recent years we have noted in our colleges a great increase in the number of Bachelor of Science curricula being offered to our students. In the wake of this an ever-larger number of the graduates of our colleges are finishing with Bachelor of Science degrees and fewer with the broader liberal arts degree. In these Bachelor of Science curricula many more hours are required of the student in his major field, forcing a corresponding lesser number for general education courses or courses in areas allied to his major. The trend has been toward a specialization or a professional education of the undergraduate curriculum. We have been apprehensive over this change in the nature of the offerings of our colleges; therefore, we set before our educators the new engineering program at Yale, and suggest that serious thought be given to the implications of this report. It is really a shortsighted approach for departmental chairmen to insist on the enlargement of their major to the crowding out of adequate core curriculum courses. It would not be difficult to point out certain professional curricula in our undergraduate colleges that are far too lopsided in their emphasis on the student's amassing a large amount of technical data in his major to the exclusion of a broader outlook that he should achieve as an undergraduate in a liberal arts college such as our own.

With the rapid changes that are taking place in practically every field of study, it is more imperative than ever that we stand by the time-tested liberal arts education as the best all-around preparation for a student in his undergraduate years, and reserve the intense specialization and mastery of advanced technical matters for graduate programs. R. H.

J. L. Clark

ASSOCIATE PROFESSOR OF HISTORY
SOUTHERN MISSIONARY COLLEGE

HISTORY is the story of the past as understood by the present. Its value lies in its formulation of ideals and ideas applicable to the present, enabling man to know better how to adapt himself to life and its problems. Those who best learn the lessons that history has to teach have tools with which better to cope with life. Since history is ever changing and since the experience and perspective of each generation is different, it is necessary for each new generation to rewrite history in terms of its own media of time and place. Thus, the subject matter of history is ever new, ever fresh and vitalizing.

With the subject matter of history constantly expanding, changing, and modifying in degrees of emphasis, it becomes important for the conscientious history teacher to keep abreast of new developments in his field. He should constantly advance in his appreciation, knowledge, and range of understanding of history. Scholarly periodicals and books, the daily newspaper, and a weekly reputable news magazine should be included in his recreational reading program. The true history teacher will find the study or analytical scanning of such material a joy and refreshment. If he really enjoys his field he will anticipate such experiences and consider such time as profitably spent. Such a history teacher will keep his classroom approach fresh, alive, and vivid, giving his students the latest information as it becomes available.

Many have felt that professional competence in history would make them adequate teachers of the subject. Scholarly achievement is not enough, however; and in no field is this more graphically demonstrated than in history. How often have we heard students proclaim, "I don't like history. It's nothing but a dry collection of dates and facts." As so often taught, history is just that. But it need not remain so. The students' attitude toward the field of history will be largely determined by the way the subject is taught.

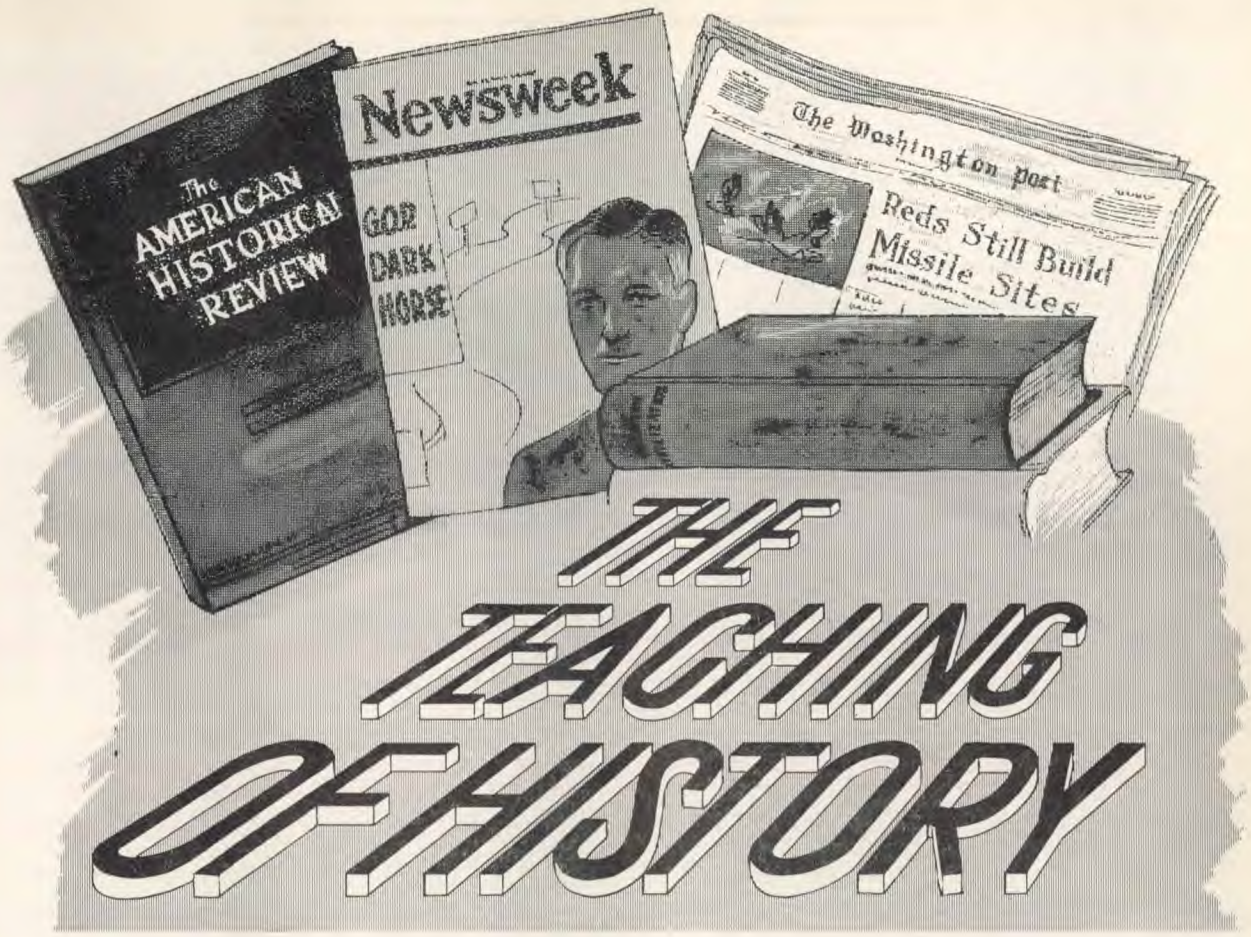
Chronology is the structural outline on which the events of history hang, but it is not the whole body. Dates and events, unrelated to the times in which they occurred, their social, political, economic, and cultural settings, are lifeless indeed. Of what value is it to learn the date 1607 unless one understands who the people were who came to Jamestown on that date, why they came, where they came from, what the conditions were in the country they left, what they did, why they had difficulties, and what were their solutions of those difficulties? The date 1607 considered in such a setting becomes a living, breathing reality to the student as he sees the people of Jamestown landing on the shores of the James River. The history teacher should be able to take the dry bones of that date and weave around them such a pattern of interest that the student can empathetically enter into the very experience of the people of that time.

Our job is not just to teach the facts of history or even to give the student certain basic concepts and ideas. Rather, we as Christian history teachers are called to help the student know what history means in its Christian setting with God's overruling hand omnipresent in the affairs of nations and of men. We are to show the student why things happened as they did in the past, why they are happening as they are in the present, and what are the possibilities for the future of a nation, an individual, or a group of nations if they follow their present course of action. To do this and to make of history a joyous and happy experience of learning and questing for truth is the greatest challenge of the history teacher. It is the most important reason for being in the profession.

History is made by people. We should help students to appreciate the humanness of their textbook's personalities, to realize that these persons were real people, and that their hopes, joys, sorrows, disappointments, difficulties, trials, and achievements are much like those that they have experienced and will experience. Humor helps. We can give insights into these people's thought patterns, their great ideas, plans, and enthusiasms.

Audio-visual aids, such as filmstrips and films, have their place if used judiciously, sparingly, and with proper preparation; but the effective teacher in the classroom is still the best audio-visual aid known. If the teacher is enthusiastic about his subject, with a solid undergirding of sound scholarship in his presentation, the students will soon evince the same enthusiasm. We cheer at an athletic match. Why not pour the same contagious enthusiasm into the classroom and make history a topic of interest to awaken latent wellsprings of anticipation and curiosity as, together, students and teacher learn new things, explore new pathways, and investigate new avenues of thought?

The student of history needs to be given a concept of what constitutes true greatness. Across the pages of secular history march the figures of Alexander the Great, Napoleon, Caesar, Wallenstein, Charles V, Genghis Khan, Charlemagne, and Attila. These are military heroes and dictators who won fame leading armies to deeds of daring, valor, and bloodshed. Their highest motivation was love of country; their lowest, love of power, wealth, and influence. Their perspective was this present world; their objective, conquest. They conquered empires, subdued peoples,



and frequently were destroyed by their own lusts and greed because they had not conquered themselves and their evil habits. In the eyes of men whose affections are geared to this present world, they were great. This is not the opinion of the Christian historian.

To the Christian historian, greatness is not based on conquest, but on service. He follows the philosophy of the Master Teacher who declared, "Whosoever will be great among you, let him be your minister."[1] Men and women like David Brainerd, William Carey, Ludwig van Beethoven, Savonarola, John Huss, John Knox, Martin Luther, Abraham Lincoln, Albert Schweitzer, David Livingstone, Jane Addams, Edith Cavell, Florence Nightingale, Joan of Arc, Helen Keller, James White, and Ellen G. White, who gave of themselves unstintingly for the good of mankind, who lighted the torch of truth, freedom, and regeneration to their fellow men, are the truly great of this world.

Only as one makes a contribution to other human beings, helps to lighten their load and relieve their suffering, does he attain true greatness. Those who aspire to such greatness never find it, for only he who loses himself in devotion to the service of others attains this elusive goal. The miracle of the finding is that those who achieve it rarely know they have it. Their fellow men know, but they are too busy to notice. They press on to do more and more for those who need their help until finally they reach the end of life's trail and are laid to rest to await the call of the Life-giver. They are the heroes of history. These are the men and women who cast self aside and go forward under the blood-stained banner of Prince Immanuel to bear His love and His salvation to a world in need.

Youth emulates heroes; therefore, we should hold up before the young people these heroes of Christian history. Let them see that the ideals and achievements of men and women who labored and dared for God can be their ideals and achievements, and that they too can so live that their names will be inscribed on God's book of life, the heavenly honor roll of fame.

History is closely related to life and its problems today. The enthusiastic, dedicated teacher can make the dry pages of a weighty historical tome become a

living portrayal of God's providential leadership in the affairs of men.

> In the annals of human history, the growth of nations, the rise and fall of empires, appear as if dependent on the will and prowess of man; the shaping of events seems, to a great degree, to be determined by his power, ambition, or caprice. But in the word of God the curtain is drawn aside, and we behold, above, behind, and through all the play and counterplay of human interest and power and passions, the agencies of the All-merciful One, silently, patiently working out the counsels of His own will.[2]

Frequently in writing history, the secular historian comes up against a stone wall of uncertainty and confusion. Some human events are inexplicable by the ordinary processes of documentation, of inductive and deductive reasoning on the basis of all the available evidence. In such a situation the average historian engages in speculation on the basis of a previously determined hypothesis. If an event is not explainable by the ordinary dicta of historical reasoning, it must have some explanation, and, reasons the secular-minded and trained historian, that explanation must be tangible, knowable, and discoverable. The explanation must have an earthly origin. To such a historian there can be no other explanation for human phenomena. He is bound with chains woven by his own skepticism and educated doubt.

The Christian historian realizes that human events may have a more-than-human explanation. He understands that God has frequently intervened in the affairs of men. As he studies history with this perspective, his vision is lifted above this present world and he sees the divine intervention of Providence interwoven in the fabric of the human story. The stone wall of the secularist becomes to him an open door to truth, revealing new glimpses of the Almighty and His wisdom. He sees inexplicable events in a new light, and appreciates the significance of the fog at Dunkirk, the lost messenger near Tarrytown, or the withdrawal of the Roman armies from before Jerusalem. Courage and confidence surge through his veins because he knows that God cares, is interested in every individual, in every community, every State, and every nation. This is both a comforting thought and one that becomes the divine catalyst to his scholarship and research as a historian. He views the world through glasses fitted to see not only this planet but also the very courts of the Eternal One.

Herein lie the major differences between the secular and the sacred, the difference in emphasis between the worldly and the Christian historian.

Higher, deeper, and wider than the most learned scholarly attainment is the responsibility of the Christian teacher. He should be one of the best scholars in his field, a leading light in his profession. Above all, let him remember that he is called to be a teacher, to educate young minds for eternity. This is the heart of his work, and transcends in importance even the pursual of a particular line of historical investigation. Whenever there is a conflict between one's own research and a student who needs counseling and guidance, the Christian teacher can have no other choice than to help the student. The sacrifice of one's own time for the good of the student is a part of the work of the true Christian teacher. It is far more important to bring to the student a divinely inspired Christian philosophy of history and its impact on his life and experience than to write the most profound historical article on the most advanced topic.

This does not mean that scholarship can be slighted, for without research the historical fountain would soon run dry. In so far as possible, the Christian teacher of history should carry on independent research on some pertinent area where he can make a contribution to the advancement of learning. Frequently this project will have to be laid aside as the duties and responsibilities of teaching press in upon him, but let him not abandon his project. Never should he lose the vision of truth or feel that all that needs to be learned has been discovered. The quest is an eternal one, and if we are to be students in the earth made new, we need to be students here as well. Of the heavenly school we read, "There will be open to the student, history of infinite scope and of wealth inexpressible."[3] The scope and wealth of the heavenly history is not yet available to us and our students, but if this subject is to be studied then, surely a beginning should be made now. Here the student may "gain some knowledge of the principles that govern the course of human events."[4] To give the student that knowledge is the divinely ordained work of the Christian history teacher.

History teachers, the challenge is yours and mine. What a privilege to meet this challenge and to lift the horizons of our students! History, prophecy, and divine revelation are intertwined and cannot be separated without damaging the fabric of historical truth. Showing the relationship between these areas, the history teacher can add not only to the student's store of historical knowledge but also make a definite contribution to the spiritual development and perception of his students. May each of us meet this high challenge and responsibility.

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[1] Matt. 20:26.
[2] Ellen G. White, *Prophets and Kings*, pp. 499, 500.
[3] ———, *Education*, p. 304.
[4] *Ibid.*

► Twila Christensen, a 1962 graduate of Sheyenne River Academy (North Dakota) and presently a freshman at Union College, won the first award on the Academy National Essay program.

Alice L. Holst

PROFESSOR OF SECRETARIAL SCIENCE
PACIFIC UNION COLLEGE

The Excellent Typewriting Teacher

Part I

The most important work of our educational institutions at this time is to set before the world an example that will honor God. Holy angels are to supervise the work through human agencies, and every department is to bear the mark of divine excellence.*

AS A typewriting teacher you have many exciting moments. But none quite equals in flavor the experience of answering a gentle knock at the classroom door to find, not a student with a note from the principal, not even the principal himself, but the conference or union or General Conference secretary of education arriving for a brief visit to see you in action. How can you be sure that your class demonstrates the highest standards of teaching in the typewriting area? How can you be sure, not only for visitors but every day, that you are an excellent typewriting teacher?

Certain attitudes, abilities, and habits identify the excellent typewriting teacher. Some of these are:

1. Character and personality traits that inspire and help young people to become excellent office workers and fine adults.

2. The ability to operate rapidly, accurately, and with correct techniques any typewriter that is in good condition.

3. The ability to conduct teaching demonstrations smoothly and effectively.

4. A knowledge of the psychological principles governing skill building and how young people learn, and the ability to apply these principles in the classroom.

5. The ability to conduct effective class periods, particularly the first few weeks of the beginning typewriting class, and the ability to conduct the more typical class periods that follow, on a consistently high level.

6. An interest in, revealed by eager efforts toward, professional progress. These efforts may include increasing your typewriting skill; increasing your teaching and office experience; taking college or university classes in typewriting methods and background information for teachers leading to your next advanced degree; attending workshops, clinics, or practicums for typewriting teachers; keeping active membership in several professional organizations; becoming acquainted with the literature in the business education field; and reading regularly the periodicals and new books in your area.

In this article we will have space to consider in more detail only the last portion of number 5 above.

The Typical Typewriting Class Period

For a number of days, perhaps several weeks, you have been introducing to your students the correct techniques for using the typewriter keyboard. Now they need to build skill by applying the basic keyboard knowledge to practical typewriting problems. The class periods during which typewriting skill is being built may be called typical class periods. Though not as critical as during the first weeks of school, they are extremely important teaching sessions. What will you want your visitor to see in order that you may feel confident that your classroom bears "the mark of divine excellence" that day? (If you feel that some of these items are the responsibility of the principal, at least see that you have brought your needs to his attention.)

What the Visitor Should See Just Before Class Begins

1. A clean, neat room. Even though the furniture is not the newest and even though the room is not located most advantageously, if it is clean and neat in appearance, the disadvantages will be minimized.

2. An attractive teacher. In a skills classroom where the psychological impact is of great importance and

affects so strongly the progress made, a teacher whose face radiates love and enthusiasm and who wears clothes that are appropriate and becoming makes a positive contribution to the learning situation that is worth considering.

3. An attractive teaching bulletin board, cheerful paint, and perhaps flowers. In other words, the setting should encourage optimism and happiness.

4. Good lighting, good ventilation, adequate heating. Lighting, ventilation, and heating must not only be adequate but must be easily controlled for various times of the day and for different seasons.

5. Recent-make typewriters in good repair. Ideally the machines for a beginning class should all be the same make and should be no older than three years. However, older machines can be used if they are in good condition.

6. Sturdy desks of varying height to allow each student to operate his machine with his forearms at the same slant as the typewriter keyboard.

7. Chairs that are comfortable, that promote good posture, and that are of varying height in order that the feet may rest comfortably on the floor.

8. Current textbooks in good repair, either owned by the students or furnished by the school. Many teachers feel that students should own their textbooks, and students find them useful for review purposes later.

9. Book holders that all students use. The holders may be as simple as a string with knots or buttons at each end, or they may be effectively engineered metal or wooden stands that hold books firmly at any page, near the front or near the back.

10. Students' materials easily accessible as students come in.

11. Teacher's materials easily accessible, and a desk located, probably, at the back of the room.

12. Teacher in the classroom early.

13. Students enter the room quietly, go to their desks without noise or confusion, and begin typing previously assigned materials or an appropriate quotation from the Spirit of Prophecy placed on the board for drill practice.

What the Visitor Should See When the Bell Rings for the Beginning of Class

1. At the ringing of the bell the teacher immediately stands up at the front of the classroom. All typewriting stops instantly, and students pay attention.

2. The teacher explains the work of the day.

3. As the students begin work again, the teacher moves from one to another, observing and giving assistance where needed. She does not sit at her desk grading papers.

4. The class period—

a. Is characterized by continuous quiet and intense, purposeful activity.

b. Is used to emphasize office attitudes and habits in connection with everything the students do.

c. Includes each of the following (though on some days one activity will be stressed and on other days another may take a longer period in the available time):

(1) Some new, interesting activity to break the monotony of constant skill-building exercises.

(2) A check on, or a return of, previously completed lessons.

(3) A review of previously learned and practiced items.

(4) The explanation and demonstration of new problems and their solutions.

(5) Individual help to each student.

(6) Drills for speed.

(7) Drills for accuracy.

(8) Drills for production.

(9) A challenge to the best students.

(10) An encouragement to the poorer students.

5. About one minute before the close of the period, students begin to put away their work and materials, but they stay at their desks, reading the next lesson or doing previously chosen drills if they have extra time.

What the Visitor Should See When the Bell Rings for the Close of Class

1. Students quietly cover their typewriters, push their chairs in place, and put their materials in their drawers or folders.

2. Students place papers they are handing in into the proper box or basket as they leave, and drop wastepaper, unwrinkled, into the wastebasket as they pass it on the way out.

3. Students perform assigned class jobs before leaving the room.

4. Students leave the classroom in the same quiet, businesslike manner in which they entered.

5. Teacher glances about the room to be sure it is left in order before picking up her materials and leaving.

Of course, a brief outline such as this does not attempt to delineate the kinds of learning that should take place in a good typewriting class period. But if the visitor to your class can check off all of these items as having taken place, or if you are working toward them, you are well started on the road to being an excellent typewriting teacher. And, more important, your students will be aware of, and inspired by, your good teaching.

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* Ellen G. White, *Counsels to Parents, Teachers, and Students*, p. 57.

(Part II will appear in February)

Teaching Handwriting Successfully

Part I

I ASSUME that the readers of this article are convinced that handwriting is a desirable and essential skill, that it is possible to teach it successfully, and that this subject requires certain equipment and supplies.

The teaching of writing begins with the teacher. Penmanship is a skill subject, and the teacher must have a knowledge of the technique and underlying principles of proper writing. He, or she, should be able to execute a good free hand, both on paper and at the board. The teacher is the pupils' pattern whether he wants to be or not! If the teacher has not learned to be a good writer that cannot be held against him, but no teacher need remain a poor writer.

Helen G. Hudson

SUPERVISOR OF GRADE FIVE
CLARA E. ROGERS ELEMENTARY SCHOOL
COLLEGE PLACE, WASHINGTON

The Palmer Method of Business Writing may be used by teachers for a program of home practice. This method has also a correspondence course that can be completed in six to ten months. A teacher's certificate will be issued to anyone who can qualify. Some States grant extension course credit for this course. The Rice Company offers a free correspondence course leading to a teacher's certificate. Zaner-Bloser has a free ten-lesson refresher course in manuscript and cursive handwriting for teachers of pupils using that system. It is $25 for those not using the books. A teacher's certificate is issued. The manual *Better Handwriting* by Paul V. West is recommended for the individual adult wishing to improve his own writing.

We shall first discuss the ten points of legibility and then various problems and practices for good handwriting. A list of books helpful to further investigation will be appended with Part II.

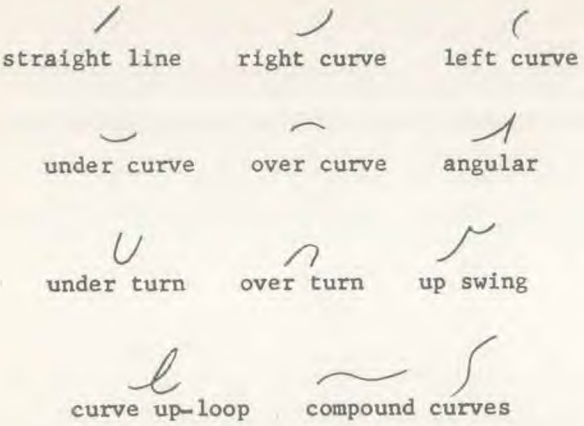
Ten Points of Legibility

What determines legibility? In a manual for the Rice System, published in 1954, are ten points. These are equally applicable to any system of writing. Most systems are similar in all these items; they vary mostly in certain letter forms.

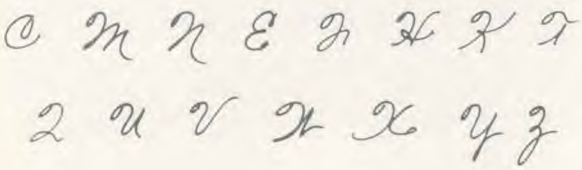
1. **Letter Form.** Each system has a definite form. Teachers should insist on the best possible form at all times according to the system being used.

Each letter must be carefully analyzed, and the pupils must be shown step by step, and often individually, just how to make each letter. An individual makes better progress when he learns to detect his own errors and correct them. Each child must be able to see the difference between his letter and the copy.

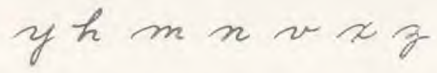
In most systems all letters are made up from only five strokes, although there are several sizes and slants of each of these, and some combinations of these that are basic in many letters. A wall chart put out by Palmer illustrates these strokes, the slant, spacing, and letter heights.



For each letter the beginning and ending strokes should be especially noticed carefully. For example, in the Palmer system the small downward loop is used at the beginning of fifteen capitals.

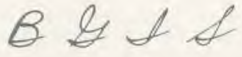


The over turn is used in seven lower-case letters.

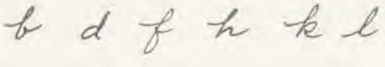


The overseer is a great help in teaching letter form. It is easier to learn the correct form in the beginning than to relearn later. Several writing companies publish clear plastic overseers that my be superimposed over one's writing to show errors in form. There are also overseers for manuscript writing.

Letters that are similar, having a common element, may be grouped for teaching. For instance, those with boat endings may be taught together.



Likewise, those with lower loop and those with upper loop.



Some companies sell charts that have arrows to show the direction of writing for all letters, both lower and upper case, in cursive, and in manuscript.

Many letters require a slight stop in order to make clear-cut letters and avoid loops and "open doors" in the wrong places.

These letters account for most of the errors; they should receive special attention:

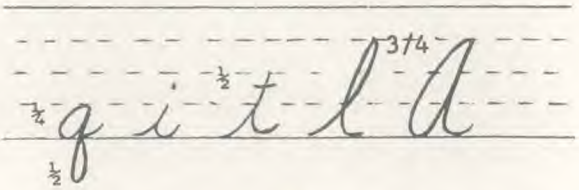
2. **Uniform Spacing.** The spacing between words should be about the width of one letter. The ending stroke of one word should be about on a line with the beginning stroke of the next word, but these strokes should not overlap. Don't be afraid of some white space between words. (See Palmer wall chart.)

There should be enough space between letters so that there is no overlapping and so that each letter is distinctly alone, yet each word should be compact. One teacher of children beginning cursive writing tells her children to place a finger after each word before beginning the next word. This, of course, is only a temporary device.

The lines should not be crowded. Letters should not take up all the space between the lines; the tallest letters should take only three fourths of the space of one line. Thus there will also be space between the lines. These various spacings should be uniform for each individual's writing.

3. **Height and Size of Letters.** Here again, each individual will have his own size of writing. It should be large enough to be read easily without eyestrain, yet not so large as to appear sprawly. Each individual's writing should be consistent. A child will write large at first, but as he attains greater muscular control he will write smaller.

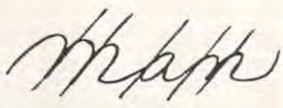
Lower-case letters take one fourth of the line; t, half of the line; lower loops take half of the lower line; and capitals and upper-loop letters take three fourths of the line. It may take consistent practice to achieve uniformity in size. (See Palmer wall chart.)



4. **Slant.** There are two main slants to consider. Here again, each individual will develop his own peculiar slant, but it should be uniform for all his writing.

Main slant is the slant of all straight downstrokes. (See Palmer wall chart.)

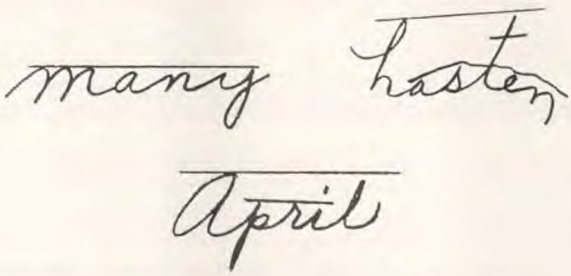
Connective slant is the slant of the strokes that connect parts of letters or words.



All downstrokes should be on the same slant in any person's writing, and all upstrokes should be the same slant.

Downstrokes should be toward the center of the body. This, of course, will depend on whether the paper is at the correct slant and in the correct position. Researchers and textbook writers generally favor a moderate slant rather than vertical writing.

5. **Alignment.** This simply means that the letters and words sit smoothly and evenly on the line. If they do not, perhaps the paper is not being moved often enough. For the younger children it may be caused by incomplete attainment of enough muscular coordination to place the letters precisely on the line. Alignment of height may be tested by drawing a line along the top of all letters of the same kind.



6. **Neatness.** Neatness includes all the points previously mentioned—correct form, spacing, size, slant, and alignment. If these principles are followed, neatness will be the usual result. In the upper grades it includes absence of ink blots and smudges. The eraser has no place in writing practice; there should be no erasure marks.

If a child is not allowed to turn in untidy, careless written work he will not try to get by with slipshod work. Sometimes we teachers grow careless in checking on this point.

7. **Position.** The correct writing position is important. Most of us have grown careless in allowing ourselves to write incorrectly, and in allowing children to do so. Before starting writing practice, have children achieve proper position by the following procedure:

1. Place paper so that the upper-right and lower-left corners are in line with the middle of the body, or slightly to the right of the middle, at a tilt of about 30°. (For manuscript writing the lower edge should be parallel to the front edge of the desk.) The tilt is opposite for left-handed students. Place the pencil where it can be picked up easily with the left hand. Two or three sheets of paper may be placed under the writing paper so that the arm will rest on it, since the arm muscle will roll more easily on paper than on the desk. A tablet or book should never be permitted under the writing paper.

2. Sit well back in the chair, place feet flat on the floor and a little apart. (Be sure the child can put both feet flat on the floor.) The body should not touch the edge of the desk or table. There should be two or three inches between them. This allows freedom of movement and prevents chest depression.

3. Drop both hands at the sides in a relaxed attitude, flex the fingers a bit.

4. Raise both arms above the desk, in a position for writing. The left arm will be parallel with the top edge of the paper, the right arm will be parallel with the left edge of the paper and above the point where writing will start.

5. Curve the small finger of the right hand under, and curve the index finger and thumb ready for the pen. Drop the hands so that they will fall on the paper in the correct position ready for writing. The left hand holds the paper to keep it from sliding and to move it when necessary. Both arms should be on the desk, with elbows one inch from the edge, and they should remain so.

6. Pick up the pen with the left hand and place it in the right hand ready to write. The index finger will be near the point of the pen, the thumb will meet it near the first joint. The pen will rest somewhere between the upper joint of the index finger and the base of the thumb. It should point somewhere between the right shoulder and the elbow. This will depend somewhat on the height of the pupil.

7. Do not allow the arm to rest on its side, for in that position it is about as powerless as an auto on its side. The hand should be tilted toward the left until the wrist is at about a 45° angle. This may be tested by noting whether the top of the pen points between the elbow and the shoulder. The wrist should not touch the paper at any time, nor the fleshy part of the hand. Only the little finger or perhaps the nails of the third and fourth fingers, and the large muscle of the arm will touch the paper. This position should be consciously maintained until it becomes habitual. A pencil grasped in the hand so that the eraser end extends slightly to the right and is held in place with a rubber band that goes over the back of the hand and over each end of the pencil will prevent the hand from getting too much on its side. Adjust the pencil extension so that the slant of the hand is correct.

Again, of course, this is only a temporary device to aid in establishing correct hand position.

8. For a while go through this procedure every day at the beginning of practice. Later one could perhaps just say "Relax, raise arms, drop." It should become automatic to assume the correct position. Remember, though, that children become lax when the teacher does. Encourage them at other writing times to practice and maintain the same attitude.

8. Movement. Movement and position go hand in hand. A combination of muscular arm movement with some finger control is advocated by most writing companies. It is important that muscles be relaxed so that movement may be free.

The hand touches the paper only on either the nails of the third and fourth fingers, or the first joint of the little finger, or the tips of both the third and fourth fingers. The latter is recommended by the National Education Association research bulletin, and it seems easier. The side muscle of the hand and the wrist should never touch the paper, as previously stated. The index finger should remain on an outward curve and should grip the pen lightly. The Palmer method suggests that fingers may help in the movement in making the up-loops of some letters such as *f, l, b,* et cetera; ⅛ finger movement and ⅞ arm movement is the proportion suggested.

The large muscle of the arm rolls so it must be on the desk. It cannot roll in a tight sleeve; therefore, it is best to push the sleeve above the elbow. The pushing of the pen is done from the shoulder muscle.

Before writing let the child feel the shoulder muscle, the motor (just in front of the armpit), with the left hand as he pretends to write. Let him feel the movement of the large arm muscle as he writes. Have him open and close the right hand as he feels the motion of these muscles. He must get the *feel* of it.

The hand and arm should be in motion a bit before the pen is set to the paper. The movement should be in the direction of the first stroke to be written. This is important.

The pupil should practice the principle of free motion two or three minutes each day, writing easy words so that he can concentrate on position and movement. This movement can be used effectively only when one is in good position with a clear writing surface. When one must write under other circumstances he will naturally use more finger motion. Here again, remember that when the teacher grows less vigilant the children will be correspondingly careless.

Arm movement is complicated. It takes many changes of pressure on the penholder and of the pen point on the paper in making one letter. To use a little extra pressure at the wrong time may cause a letter form to go astray. Since pressure changes will develop kinesthetic sensation of the feeling of the movement, it takes much systematic practice to achieve muscular control in making letters correctly. The student must also learn to do this rhythmically.

We must be patient, but we must systematically provide practice periods and insist upon correct position and movement. The big question is how to get the time in a crowded schedule, but we must find an answer.

9. Speed. Speed is achieved after a correct letter form is learned. Research shows that when a pupil writes under favorable conditions, his speed and legibility increase as he progresses through the grades. Quality is more important than speed in some activities, whereas speed may be more important in others. We must not neglect either. Speed tests may be taken occasionally, but position and form should not be sacrificed to speed. Speed will come as position and form, together with movement, become more nearly automatic. Different handwriting scales contain instruction for giving and evaluating speed tests.

The speed of writing is flexible; an adult under pressure to get a great deal of writing done may write as many as 130 letters a minute and do it without sacrificing quality if he is careful not to grow careless in position and movement. We cannot use the average as a standard for individual children except as a mild incentive for those below this point. Palmer gives a chart of average speed in letters per minute for each grade. Individual ability enters into the rate of writing. This standard could inhibit progress for the child who is easily capable of writing much faster and still maintaining proper position and form.

10. Rhythm. Correct rhythm is important. By this we mean the number of strokes or units that should be made per minute. Correct rhythm will help encourage the slow-motioned pupil and will have a slow-down effect on the one that is nervous and swift-motioned, and will help each to do better work.

Counting serves the same purpose in writing as in music. It is a valuable aid if used correctly, but a detriment if used incorrectly. It develops rhythm and regulates speed.

Rhythm varies; sometimes it is definite, sometimes irregular, depending upon the count in making any particular letter or word.

There are three distinct movements for which counting is done:

1. Continuous, as in the oval.
2. Stop, as in the top of the  where there is an angle to make.
3. A slowing-movement, as in the compound curve. These are harder to make, and the rhythm needs to be slowed.

One count should be given for every down or forward stroke. The teacher may give the class a start by counting orally, then let each child count for himself to fit his own pace. The textbooks give the

count to use for each exercise. Teachers and pupils should read all these directions. The teacher will need to count with individuals until each learns how.

At the beginning of the period one may count for about thirty to fifty seconds for a simple well-known drill that has been fairly well mastered. The teacher moves quickly through the aisles, glancing both ways and noting who needs further instruction.

There are four types of counting. Each type must, of course, be used in perfect rhythm.

1. Descriptive: "Over, up, swing." (Especially good for beginners.)
2. Numerical: "1-2, 3-4, 5-6," et cetera.
3. Corrective: "Wrist up, close it up."
4. Conversational: "Roll the muscle, on the arm, that's it, that's it, let it glide."

Music is not too helpful, since all do not write at the same pace. It might be used occasionally for variety, and then only if the speed of the music matches the recommended speed of writing for that particular drill, and if the count is the same. For instance, music in ¾ time may be used for a letter with a 1-2-3 count, but even then it cannot be faster than the average writing speed of the group. Advanced pupils may use 2/4 or 4/4 music for ovals at 200 r.p.m.

Scott Foresman publishes a brochure entitled *Handwriting* that lists songs with the time of each, and that also lists letters that may be made to the music of that song. These songs are on records, but they are used only to teach the melody. A much slower rhythm will probably be used while writing.

Some have used a metronome, but there is no machine more effective than the human voice.

(Part II will appear in February)

Effective Practices for Building Faculty Morale

W. E. McClure

ACADEMIC DEAN
EMMANUEL MISSIONARY COLLEGE

THE school which has good teachers needs little more, and a school without good teachers will be little better for anything else." John Locke is credited with these words that are as significant for the school administrator today as they were in his day. We are all concerned with the problem of attracting good teachers and with the equally challenging task of retaining them on our staffs. After the staff has been completed, it becomes our prime concern to provide them with working conditions that will be both attractive and conducive to the highest efficiency possible.

The acute shortage of teachers, the frequent turnover, and the spirit of dissatisfaction found among teachers are symptomatic of a condition of poor morale. This condition has been the object of much study, the subject of many articles, editorials, and public addresses on the local, State, and national level.

Good morale is recognized as one of the vital factors in the success of any enterprise involving people. Large business and industrial organizations are spending much money in research to develop practices and techniques that will bring about high morale and thus produce the best possible results.

Morale has been defined as a condition affected by or dependent upon such factors as zeal, spirit, hope, and confidence. We might say that morale is the mental state or general tone of the school. Good morale is an active thing. Zeal, hope, confidence, good will, true respect, understanding, and trust do not occur in a vacuum.

It is incumbent upon the principal to lead out in establishing a pattern or patterns that will assure a thorough understanding of policies, regulations, problems, administrative procedures, and decisions. Such a goal calls for constant effort toward improving the level and standards of school morale. It calls for a raising of ethical sights.

The greatest strides in the study of principles underlying good personnel relations and morale building have been made in the field of industrial psychology. Studies have indicated that men and women

A condensation of a talk presented at the academy principals' council, Monterey Bay Academy, June, 1957, when Mr. McClure was principal of Forest Lake Academy.

work better and the job is more attractive and satisfying when their basic needs are satisfied.

Three broad areas of human need are: economic (adequate living conditions and job and wage protection); psychological (freedom of action, self-expression, and creative outlets); and social (group relationships and community life). Satisfaction of these drives promotes happiness.

Emily Marie Scully published a study entitled "Personnel Administration in Public Education" (thesis for the degree of Doctor of Philosophy, University of Wisconsin), for the purpose of ascertaining the types of behavior and administrative practices and procedures that in the judgment of principals or teachers were considered to contribute either to the satisfaction or the dissatisfaction of either principals or teachers. Miss Scully found that teachers and principals concurred in the opinion that there are basic needs for which satisfaction is being sought, and that teachers perform their duties best when their relationships are guided by "human qualities which best satisfy their own needs."

Among the teacher needs listed by Miss Scully are: The desire for security—assurance of continued employment, assurance that one is making a worthwhile contribution and that he is important on the job, assurance that one's dignity as a human being will be respected, that he has a voice in decisions affecting his work, and that he will receive a fair return for services rendered.

She found that teachers and principals are agreed that these needs can best be satisfied by a clear definition of one's duties, a definite salary schedule, a system of promotions recognized as fair, the assurance of needed help, pleasant and friendly surroundings, frequent expressions of appreciation, opportunities to contribute suggestions toward the solution of problems, the assurance of a voice in arriving at decisions that affect one's work.

Miss Scully concluded that teachers are more concerned with personal qualities, attitude, and tendencies on the part of the principal, while principals are more concerned with specific practices and procedures that seem to affect adversely the operation of the school. These conclusions should have significance for principals and boards.

According to the teachers, the administrative procedures that contribute most to their satisfaction in teaching situations are: freedom from interference, cooperation of principal, pleasant and friendly school atmosphere, assurance that their work is worthwhile, equalized teaching load, principal's availability when he is needed, clear understanding of teachers' responsibilities, efficient management and operation of school, a program in which teachers are asked to cooperate in formulating school policies, and efficient handling of disciplinary problems.

Some may doubt whether these things are important in Seventh-day Adventist schools, but men and women everywhere have the same basic needs. It is true that in our schools their motivation may be somewhat higher, but I am convinced that the principles would apply.

I sent to more than twenty-five of our academy principals throughout the United States a letter asking them to list four or five morale builders in use in their schools that may be somewhat out of the ordinary. The response was gratifying. Twenty-five came forward with suggestions that I will list here in the order of number of times mentioned. The responses of the principals have been catalogued under four

Only when you have confidence that your teaching makes a difference to the learner can there be any real purpose in your work as a teacher. Only when you yourself sense an achievable purpose in teaching can you help your students find purpose in learning.—KENNETH H. HANSEN.

different headings—social, psychological, economic, spiritual. Five social techniques were listed, twenty-three psychological, eight economic, and three spiritual. The cataloguing under the four headings is admittedly open to question. Some might be placed just as readily under one heading as another. In such cases they have been placed arbitrarily. It is significant to note that the technique most frequently mentioned by principals was related to the social urge, and dealt with frequently conducted faculty socials. The most frequently mentioned technique referred to by teachers fell in the class affecting the psychology of the teacher. Reference was made to the economic aspect, although to a lesser extent. Some emphasis was placed on the spiritual.

Techniques and Practices Suggested by Principals

Social

1. Have faculty socials frequently.
2. Entertain staff at principal's expense at beginning of year.
3. Have faculty play night once a week.
4. Have faculty-board banquet.
5. Organize teachers' association.

Psychological

1. Express appreciation for work well done.
2. Display spirit of helpfulness and friendliness.
3. Permit weekend leaves to relieve confinement and break routine.
4. Keep staff posted on plans and developments. Have few secrets.
5. Make teacher feel important and part of the program.

6. Manifest spirit of impartiality and tolerance in recognition of true worth of teacher.
7. Follow democratic procedures in evolving policies and standards.
8. Show interest in protecting and supporting teacher's interests.
9. Support teacher in disciplinary matters.
10. Permit teachers freedom of action without basic pattern.
11. Make frequent visits to the department, and discuss problems candidly.
12. Plan weekends away at camp for faculty.
13. Distribute teaching loads equitably.
14. Be consistent and definite regarding rules and regulations.
15. Hold regular staff meetings for discussion.
16. See that pay checks are available every two weeks.
17. See that teachers get checks on time.
18. Clearly assign responsibility.
19. Distribute equally among teachers responsibility of chaperoning choir tours.
20. Refrain from discussing weaknesses of one teacher with another teacher.
21. Pass on all calls but encourage teachers to remain.
22. Provide teachers opportunity to assist in evaluating administrative practices.
23. Provide in-service training opportunities.

Economic

1. Make available to faculty as many financial advantages as possible.
2. Maintain an attractive plant with adequate facilities and supplies.
3. Give teachers a sense of security in the job—not moving them frequently.
4. Allow opportunity for graduate education with full salary.
5. Do everything possible to give teacher a feeling of financial security.
6. Give Christmas bonus to all faculty members.
7. Acquaint teachers with fringe benefits.
8. Provide year-around employment.

Spiritual

1. Hold faculty prayer meetings weekly.
2. Have faculty worship period at beginning of each day.
3. Study conscientiously the principles set forth in the writings of Ellen G. White.

I have found the following practices highly successful as personnel morale builders: Democratic procedures in staff meetings; clarity in outlining assignments and responsibilities; complete understanding of standards and regulations in force; assurance of support from the administration; an informed staff; equal distribution of responsibilities and teaching load; adequate salaries; adequate and attractive housing; frank and fair dealing with all students and teachers; manifestation of a personal interest in teachers' problems, whether personal or professional; expression of appreciation for work done; operation of punctual program; maintenance of high spiritual tone in the school; assurance that opportunity for advancement will not be withheld from any teacher; opportunity for growth; opportunity for change and relaxation; opportunity for social outlet; attractive and adequate classrooms; economic considerations such as home-owner's subsidy, car allowance, opportunities to make purchases through the school at cost to the school, provision of hospitalization plan, liberal administration of medical policy, Christmas bonus, occasional picnics or dinners at school expense, opportunities for further study on full salary, payment of expenses for in-service training; wherever possible, employment of teachers' children in industries; liberal vacation with pay; year-round employment where desired.

Morale, whether in industry, business, or in a school, is formed by emotional overtones. High morale can be achieved if each person involved can remember that each little thing done well and a keen desire to do a better job can develop into a tremendous potential force.

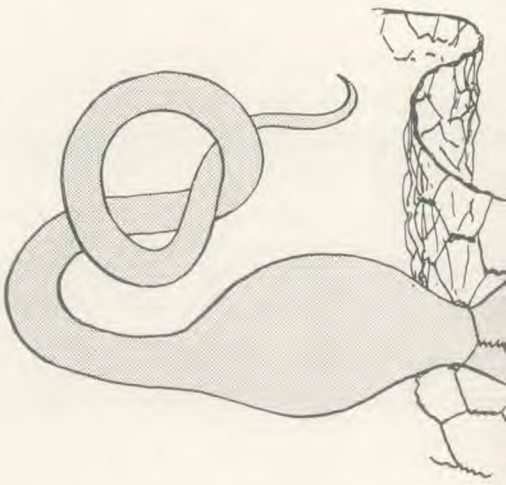
Can we not as administrators profit from the research and experience of business and industry and from other situations where personnel relationships play such a vital part in the success of the enterprise? In our own local situation let us give close attention to policies and procedures that will mean happier, more attractive and satisfying working conditions. Our efforts will be rewarded in attracting better teachers, retaining more of those we have, and best of all, in producing a climate in which these teachers can and will do their best work.

► As a plan to allow everyone opportunity and time to participate in a Share Your Faith venture, Laurelwood Academy's MV Society is sponsoring biweekly meetings and alternating activity bands this semester, according to Sponsor Mart Mooers. The bands include seminar, singing, literature, religious liberty, temperance, Foreign Mission, mailing, story hour, and Community Service. A stand-by band has been developed for those not choosing one of the regular bands.

► Kenneth R. Davis has been appointed acting dean of student affairs at Southern Missionary College. He will replace William H. Taylor, who has been given more time to spend on public relations, development, student recruitment, and alumni affairs, all now under the department of college relations, of which he is chairman.

Booby Traps for New A

THERE are many traps into which the unwary beginning administrator may fall, but there are a few basics about which one should be warned. The six we will discuss will serve as a warning that there are "occupational hazards." We are in dire need of many more dedicated, able, professionally prepared administrators to fill this very important position of trust in our schools. Many teachers with administrative talents decide that the job demands too much, and that, after all, the classroom teacher does just about as much good, deals with the students more directly, and makes about as much money *without* all the headaches, so why be an administrator? This little treatise may serve to forewarn some, and at the same time point out that the "dragons" can be easily conquered. We hope, too, that someone may be encouraged to move into this vital work.



We attach no significance to the order of presentation of the traps. The order of importance will be different for each of us. We shall consider first the trap of hasty decision. It is a great temptation for the beginning administrator to wade into situations that may seem to him to need his attention. Many of these "problems" will evaporate if one does not make them become serious by challenging someone too quickly. For instance, a parent complains that her Johnny is being bullied by Jack, the teacher just punished Johnny unjustly, and "Why don't you do something about it?" Remember that Mother has heard only one side of the story. Ask the teacher about it diplomatically. As often as not, you will find that Johnny was actually at fault, so you would look a little foolish taking his part.

Another facet of this trap appears when students make some derogatory remarks about the school, the class, or the teacher. Inexperienced teachers and principals may take up the gauntlet too soon. Oftentimes it is better to ignore offhand remarks and wait to see whether they indicate a temporary squall or a real storm. If you show that your skin is thin you may get more than you bargain for. Students expect teachers and principals to be steady, even-tempered, kind, but firm and consistent. Let's not disappoint them!

Akin to this is the trap waiting for the principal who is looking for trouble. Do not read into little actions and words meanings that are not there. The student may be working off some resentment not connected with you or the school in any way. Do not interpret such actions as challenges to your authority. Do not assume that every little knot of students is plotting some deviltry. There is no end to the trouble that can come if one falls into this trap. The great majority of our young people will respond to trust and confidence placed in them.

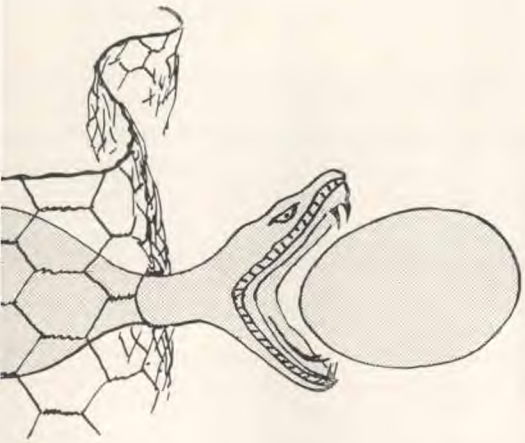
It is easy for a young administrator fresh from college or from the "ranks" to get a crusading zeal. This well-meaning zeal can lead one into another trap. Every school has many areas that need improvement, but it is not wise to move in too quickly. Your constituents and your school board will just naturally pull back on the traces if they feel you are likely to take the bit and run off. Immediate, revolutionary, sweeping changes made with a great bustle cause resentment. It is a slap in the face to the previous administration and to the intelligence of the whole constituency. (The exception, of course, is when one is hired with these very changes in mind.)

If you see a host of things that seem to need change, write them all down and study them. Some can be handled quietly, without expense, and without anyone's being aware. Other items cannot be cared for in this manner. First, make sure the changes

inistrators

Oren W. Hewitt

PRINCIPAL
REDWOOD EMPIRE JUNIOR ACADEMY
SANTA ROSA, CALIFORNIA



are really needed and will better the school. Next, take your list before the faculty to establish an order of importance and to secure counsel. Finally, take the list to the board chairman. Let him introduce the items to the board according to his judgment. A good thing to remember in this connection is the old adage about how much good could be done in the world if no one cared who got the credit for it. It is a human trait to want credit, but the administrator can get more done if he lets other people have the credit for ideas that he places in their minds by adroit suggestion. What do we care if others get the credit, as long as we have the satisfaction of getting the job done?

Another well-known pitfall is the one labeled "Everything the previous principal did was wrong, or he would still be here." Do not be fooled by this one. Of course he made mistakes and had failings. Who doesn't? But tread softly here, for he has many friends in the community. I'll never forget the time I fell sideways into this one. My predecessors in the school had not cleaned out the files for many years. File cabinets and cupboards were filled to overflowing with out-of-date catalogs and correspondence. That was an invitation I could not resist. I started cleaning house with a vengeance. When I had the floor piled high with the material, the board chairman walked in. He just about hit the ceiling! He was certain that I was throwing away valuable papers. To him it was an insult to the previous administrator, for whom he happened to have a very high regard (and so did I, by the way). I believe that I was doomed from that moment, for he and others began looking for other mistakes, and I was not rehired the next spring.

Still another trap for the unwary is thinking that you know all the answers just because you have taken numerous professional education courses in college. College courses do not give you the answers; they just give the means of finding the answers. Some of us learn this the hard way. For instance, when I started teaching I was sure that I knew all about rearing children. Hadn't I taken courses on it in college? I even made speeches on the subject. Then my boys started to grow up, and I found that the books do not have all the answers. The speeches stopped. Don't misunderstand me; I have three fine boys, but I found that I was vulnerable and stopped philosophizing until I saw how my own family was going to turn out. By that time I had learned that one person's experience will never completely solve anyone else's problems.

This points up the danger in thinking you know all the answers in any area pertaining to your job as teacher or principal. You will find that many of your constituents have had much education in the school of experience, and may therefore be superior to you in knowledge, even though they may have less formal education. The wisest thing for a new administrator to do when faced with a knotty problem is to seek counsel. Far better do this than to plunge blindly ahead in a fool's paradise, believing that your education has given you all the answers. Seek counsel from members of your staff, from your board chairman, from your pastor. These people will not think less of you for this, unless you form the habit of running to them with every little detail. As you gain experience you will also grow in ability to handle perplexing situations.

Someone is bound to say at this point that there are problems that arise out of a clear blue sky that must be handled on the spot, with no opportunity to seek counsel. What then? The solution is prayer. We are counseled many times in the Spirit of Prophecy writings that our first work each morning is to

seek God for guidance for that day. An administrator who earnestly entreats the Lord for wisdom and self-control (the two most valuable traits for an administrator) will not be found wanting when an emergency arises. Of course, do not expect God to do for you what you have had opportunity to do for yourself. He expects you to grow from experience and study and constant communion with Him.

I am sure that every teacher and principal knows that the successful school is one in which the faculty operates as a team. A fatal mistake for an administrator is to be a dictator and make all decisions for the school. There may be members of the faculty who have taught as long as you have been alive, and these may resent this approach to school operation. Take pains to let the faculty know that their experience and counsel are valued. A good approach is a "What do you think of this?" attitude on the part of the principal. You will have greater success as the chairman of the faculty than as the sole and final source of wisdom.

Our last booby trap could well be the most deadly, because it is the least obvious. It is easy and natural to sympathize with people. It is the part of the principal's job to listen to complaints from all sides. Beware of taking sides until you have all the facts, and then, beware of taking sides! When listening to a parent's complaint about a teacher, be careful what you say. Your words may surprise you when they come back via the teacher. Remember that your first duty is to the teacher. Most of what you hear from parents comes from the pupils and may be highly colored. The first thing to ask is whether the parent has been to the teacher. If the two of them are not able to resolve the problem, then talk to the teacher privately. The two of you work out a solution before bringing in the parent. Impress the parent with the teacher's desire to do the Christian thing, and the difficulty will nearly always dissolve. I have never seen this approach fail to produce the desired result.

When you find disagreement among the faculty you are dealing with potential dynamite. You must be impartial and consistent, difficult though it may be. Personal friendship must not sway you. Each member must feel that you are just as much his friend as anyone else's. Once the faculty loses confidence in the principal, harmony and team spirit go out the window, and Satan comes in to destroy the influence of your faculty upon the student body. Intrafaculty discord calls for patient personal work on the part of the principal. It is a challenging work, and it pays big dividends.

The administrative duties of a principal are largely composed of personal and public relations. It is amazing how many of these situations can be resolved by adherence to advice given many centuries ago. "Do unto others as you would have them do unto you" is still potent medicine. This simple instruction covers our relationships with faculty, students, and parents. If each of these groups is convinced that, under God, you are striving to carry out this principle, you will be able to effect a harmony that will make your school a living witness to the power of God. But remember that we convince more by our actions than by our words. We should strive to be the same yesterday, today, and tomorrow—a living example of Christian tact, patience, courtesy, and firmness.

ERRATUM

The article, "Mental and Emotional Health," on page 16 of our October issue was authored by Pearl Meads as well as by Alfaretta Johnson Cooley. We apologize to Mrs. Meads for failing to include her as co-author with Mrs. Cooley.

He that governs well leads the blind; but he that teaches gives him eyes.—ROBERT SOUTH.

The Reading Teacher

Gladys Schmidt

TEACHER, GLENWOOD SDA ELEMENTARY SCHOOL
DOWAGIAC, MICHIGAN

I had a teacher who read to me
Sagas of martyrs across the sea,
Driven from home to a foreign sod,
Faithful till death to their trust in God.

I had a teacher who read me lays
From poets famed in bygone days;
"Hiawatha" and "The Children's Hour,"
Psalms of David, in the twilight hour.

I had a teacher who read me tales
Of modern heroes on lonely trails;
Of Desmond Doss in the battle grim,
How as a hero they honored him.

I had a teacher who read me things
That eternal life to the young heart brings,
Stories that stir in the heart of a youth
The will to conquer, proclaim the truth.

Your school may have been in a building fine,
Furnishings more pretentious than mine;
Richer than I you can never be—
I had a teacher who read to me.

With apologies to Strickland Gillilan, author of the poem "The Reading Mother."

Keld J. Reynolds

VICE-PRESIDENT FOR ACADEMIC AFFAIRS
LOMA LINDA UNIVERSITY

Patterns of Graduate Education

(Concluded)

Problems of Organization. Administrative and organizational problems have characterized graduate education for so long that we have become used to them. As we talk about the weather, we talk about them, describe them, but do little about them. We chuckle over Jacques Barzun's characterization of the graduate faculty as the "amiable anarchy." We raise our eyebrows over Cowley's description of the graduate school as a collection of small professional schools (the departments) held together by their devotion to research and the magic of the Ph.D. degree.

It sounds better to say that the graduate faculty operates with a minimum of administrative restrictions than to describe it as an anarchy. Universities are learning, however, that with this lack of organization they are getting superior and inferior degrees in the same institution; they are cultivating exaggerated strains through inbreeding professional degrees with themselves and academic degrees with themselves; they are permitting the growth of a faculty caste system which tends to exclude vigorous and productive young scholars; and they are making the deanship so frustrating and unrewarding a post that few have the fortitude to carry on beyond the short-term norm.

Morris A. Stewart, dean of the Graduate Division, University of California at Berkeley, and an influential voice in Western graduate education, has offered constructive counsel concerning organizational matters:

1. The graduate school should be a unit with a graduate council or committee representing all graduate programs in the university, presided over by the dean. The council should be advisory to the dean, but responsible to the faculty, by whom the council members are appointed or elected. The council should be given broad powers governing academic standards, including admission and graduation, and should carefully guide the growth of the graduate school toward a designed whole with balanced parts, each part having the academic strength appropriate for graduate education leading to teaching and research.

2. Departments of instruction offering graduate work must determine what courses are to be offered, who is to teach them, what the major requirements shall be—all subject to the graduate council for approval or for recommendation to the administration of the university. The departments should advise the dean and the council on the admission, dismissal, and readiness for graduation of the students. They should periodically review their offerings and curriculums and make recommendations to the council for appropriate changes. Each department should maintain close contact with the council through the dean.

3. Faculty advisers of graduate students in a department should be nominated by the department, or its chairman, and appointed by the dean. These advisers should be deputies of the dean and should consider themselves primarily the representatives of the dean and the council, and not the representatives or champions of their departments. The advisers should formally approve the programs of study of the graduate students in their departments. They should be required to give preliminary approval or disapproval to petition for graduate students in their departments directed to the dean or the council. They should recommend persons to the dean or council for membership on students' examining committees. They should serve as the primary contact between the dean and the department.

4. The deanship in graduate education should be

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strengthened and the one who bears the title should be in fact the dean of the graduate students and not merely a "glorified clerk or an exalted policeman." He should be responsible in academic matters to the faculty of the university through the graduate council. Administratively he should be directly responsible to the president of the university. He should administer the rules and regulations of graduate study and enforce the fulfillment of degree requirements enacted by the faculty or the council. He should be responsible, according to established rules and procedures, for admission to and dismissal from the graduate school, for certifying the eligibility of students to receive degrees, and for presenting degree lists. He

As education is our might, at home and abroad, let us worry about its strengthening as we do about our gold supply, our missiles, and the race to the moon.—DAVID D. HENRY.

should bear heavy responsibilities with respect to the awarding of fellowships and the appointment of teaching and research assistants. To make certain that he will have a voice in the departments offering graduate studies, the dean should be, at least, an ex-officio member of the faculty of each school or college in which graduate instruction is offered.[1]

Additional light is thrown on the graduate deanship by Roy F. Nichols, vice-provost of the University of Pennsylvania and dean of the Graduate School of Arts and Sciences. Here is his complaint:

> Many a graduate dean [is] in an anomalous position. In terms of the usual connotation of the word, he is not a dean at all. He has a faculty to be sure, but he does not recruit it, pay it, or promote it. He cannot effectively either reward or admonish it. He cannot deal effectively with department heads in any direct face-to-face relationship in any realistic atmosphere of academic negotiation. The department heads know, and he knows, that they must look to other deans for new appointments, promotions, increases of salary; they must negotiate elsewhere than in his office. . . . They have too little direct influence on maintaining graduate-faculty quality. In fact, it seems only too apparent that a graduate dean can, in certain instances, be described as little more than a registrar and student counselor. Yet he and his part-time associates are responsible for the highest quality of university instruction and for the carrying out of some of the most difficult objectives of higher education.[2]

Here are Dean Nichols' suggestions:

1. By title, station, or function, the graduate dean should be given such a place in the administrative hierarchy as will compensate for his lack of many of the usual functions of the deanship. This might well involve membership on key university-wide committees which pass on appointments, promotions, salary increases, and budgetary allotments. To emphasize the breadth of concern which the graduate dean should have, he is in some institutions assigned an additional title, such as vice-president, vice-chancellor, or provost. In such an office, the dean can be most effective if he is fitted into the faculty recruiting machinery of the university.

2. Among the possibilities for giving status to the graduate school dean is to give him some money to spend. Discussed by deans with a degree of longing is the separate graduate school budget. However, as universities are at present constituted, this would require almost a major revolution in fiscal policies and accounting practices. More feasible, perhaps, is a "dean's fund" under his control and placed in the general budget to advance graduate school interests, such as financing the first steps of a new program, or experiments in organization or instruction, or promoting new interdisciplinary activities—the promising and vital things which regular budgets ordinarily do not cover.[3]

The Doctor of Philosophy. The problem of the Ph.D. is both quantitative and qualitative. On every side there is a growing demand for "the doctor," for college teaching, for research, for consultants for business, for government experts—to name only a few. Education is losing to its competitors in this race. It is estimated that the proportion of college teachers holding the Ph.D. degree will have declined from the 40 per cent of 1955 to 20 per cent by 1970. After reading the criticism of the degree and its holders one might wonder whether this really matters. Yet on sober thought it must be admitted that the Ph.D. is the best program we have for educating the college teacher and the specialist in the academic disciplines.

The Ph.D. is not a professional degree in the strict sense—it does not have a body of knowledge or a set of skills distinctive and peculiar to itself, which when acquired mark the possessor as a teacher or a scholar in the sense and to the extent that a degree in law or medicine so distinguishes the possessor. Yet it is a professional degree in the extent to which its possession opens doors to appointment and advancement in the professions of the scholar.

Characteristics of Ph.D. programs needing correction have been summarized by the Hobbs Committee (Committee on Policies in Graduate Education, of the Association of Graduate Schools, 1957): (1) the degree defies definition; (2) its objectives are hazy; (3) the time factor for earning the degree is too indefinite; (4) the examinations range from the inconsequential to the inquisitorial; (5) the dissertation too often displays the skills of a clerk in the card catalogs and too seldom the wisdom of the scholar; (6) too many who complete the Ph.D. are stillborn, having exhausted their energy in one meteoric flash and having nothing left but dry ashes and a box of reference and note cards; (7) the system leaves too many ABD's (All But Dissertation).

The consensus is that better-defined objectives for

the Ph.D., a more rigorous screening of applicants, and a greater degree of financial security for the candidate will go far toward the solution of other problems such as the stretch-out (a median period of eight years), attrition (estimated at 40 per cent, the same as in baccalaureate programs in American schools, of which figure perhaps half is accounted for by the ABD's who still hang on), and the ABD problem, when the uncompleted dissertation hangs over the candidate like a black cloud, interfering with his career (the employing organization wants to add another Ph.D. to the rolls), with his peace of mind (he has not succeeded in establishing himself as a scholar), and the institution where he is studying has the problem of keeping track of him and the worry of another potential case of attrition so near the end of the line, for which reason the department is under pressure to pass an inferior product for neatness' sake, and the major professor has another case of thesis supervision at long distance and in bits and pieces.[4]

The consensus is that the dissertation, "an island of words in a sea of references," is still the most important part of the doctoral program, despite the criticism leveled at it. However, there seems to be an increasing concern about quality and significance, and less concern about originality for its own sake.

Typical of the criticism of the originality concept is this from Meredith Wilson, chairman in 1958 of the Committee on College Teaching of the American Council on Education, and president of the council in 1959:

> At any rate, it would be worth our time to examine, in graduate schools, whether the allegations are correct that (1) the thesis diverts attention from the significant central problems of the discipline toward the novel and peripheral, thus sacrificing the prospects of wisdom and understanding in the false hope of guaranteeing a contribution to knowledge; and that (2) the thesis as presently required may burn over more creative minds than it awakens to continuing creativity.[5]

The revisionists would have as the primary purpose of the dissertation a contribution to the knowledge of the student, not of the world, an instrument of research training, a test of maturity of mind. Some of the revisionists, particularly in the natural sciences, want to change the dissertation from "a bad book to a good article" of publishable material, in which the examining committee could expect to find better quality. Revisionists in the humanities and the sciences are agreed that quality must be improved and that it can be as well demonstrated in an opus 200 to 250 pages in length as in the bulkier omnibus productions which students seem to think are demanded of them. Logically, the reformers in the data disciplines still look for originality, while those in the word disciplines would emphasize maturity of judgment and style.

The Master of Arts. The Master's degree, it has been said, began as a "social distinction, became a postgraduate degree, . . . and is today alternately a consolation prize, an insurance policy, or a sop to public education."[6] With all that, it is generally agreed that the degree is worth preserving, or worth reviving, or worth exhuming—depending on the point of view of the advocate.

The Master's degree suffers from diversity. It has come to mean less because its faces are so many. There are said to be upwards of 100 variations of the degree. The work it represents is in wide range: a fifth year with no general examination, no thesis, and no foreign language; a terminal degree in some professions; a first professional degree in other professions; a milestone on the road to the doctorate in the academic disciplines.

Knowledge is proud that he has learn'd so much;
Wisdom is humble that he knows no more.
—WILLIAM COWPER.

There has been academic weakening of the degree principally for two reasons: first, the stronger institutions which concentrate on the doctorate and which can and do maintain quality, now pay less attention to the first graduate degree and grant fewer Master's; second, the pressure from State boards of education has tended to make the Master's a professional degree.

It is unlikely that the trend can be reversed and the Master's degree restored as an academic degree in the traditional sense.

The prospects seem brighter on the professional side. Here a good Master's program can be productive of better quality in the professions, particularly in teaching. It is becoming increasingly important for secondary education, with the changing emphasis from method to content, as in the Master of Arts in teaching programs which now are developing.

Epilogue

We are confronted with one of the greatest challenges and some of the greatest problems in the history of Seventh-day Adventist higher education. The Church has appointed us the architects and builders, first of a new graduate school, and at longer range, of a Western university. The diversity of substance and function in contemporary American graduate education provides us no set form, but forces us to analyze, select, adapt, and invent. Loyalty to the Church demands that we shape a philosophy for graduate education which traditionally had no common philosophy, and that we provide spiritual emphasis at an educational level which traditionally is secular. Out of a small Adventist population we must find

and shape a disproportionately large number of men and women who are genuine scholars and teachers, and whose spiritual witness is as positive an influence as their scholarship. This is the task before us. "Let us rise up and build,"[7] and may the Lord strengthen our hands for this good work.

[1] Morris A. Stewart, "The Organization of the Graduate School," *The Journal of Higher Education*, Vol. XXX, no. 3 (March, 1959), pp. 136-140.
[2] Roy F. Nichols, "The Ambiguous Position of the Graduate-School Dean," *Ibid.*, pp. 124, 125. Used by permission.
[3] *Ibid.*, pp. 125-127.
[4] From *Graduate Education in the United States*, by Bernard Berelson, pp. 156-172, passim. Copyright 1960, New York: McGraw-Hill Book Company, Inc. Used by permission.
[5] *Ibid.*, pp. 173, 174.
[6] Howard Mumford Jones, quoted in Berelson, *op. cit.*, pp. 185, 186.
[7] Neh. 2:18.

Selected Bibliography

Axelrod, Joseph, ed. *Graduate Study for Future College Teachers*. Washington: American Council on Education, 1959.
Berelson, Bernard. *Graduate Education in the United States*. New York: McGraw-Hill, 1960.
Committee of Fifteen. "The Graduate School Today and Tomorrow." New York: Fund for the Advancement of Education, 1955.
Committee on Policies in Graduate Education. "Doctors and Masters —Good and Bad," MS. New York: Association of Graduate Schools, 1957.
Conference of Deans of Southern Graduate Schools. Publication No. 19, "Minimum Standards for Graduate Degrees." Columbia (S.C.), 1948.
Hollis, Ernest V. *Toward Improving Ph.D. Programs*. Washington: American Council on Education, 1945.
McGarth, Earl J. *The Graduate School and the Decline of Liberal Education*. New York: Teachers College, Columbia University, 1959.
Ness, Frederic W. *A Guide to Graduate Study*, 2d ed. Washington: American Council on Education, 1960.
Nichols, Roy F. "The Ambiguous Position of the Graduate-School Dean." *The Journal of Higher Education*, Vol. XXX, no. 3 (March, 1959), pp. 123-127.
Stewart, Morris A. "The Organization of the Graduate School," *Ibid.*, pp. 136-140.
Storr, Richard J. *The Beginnings of Graduate Education in America*. Chicago: University of Chicago Press, 1953.

► Lester Border, plant superintendent of the Porter Sanitarium for the past nine years, has begun his work as superintendent of building and grounds at Walla Walla College. Other new industrial superintendents and staff members at WWC include Leslie Griffin, college bakery manager; Paul Hellie, power house; R. H. Koorenny, college store manager; Mrs. William Wall, acting director of food service; John Wohlers, assistant manager of College Press; and Mrs. Adelyne Martinson, assistant in the finance counseling office.

► The division of nursing at Southern Missionary College has entered into cooperative clinical endeavors with two organizations in the Chattanooga area. SMC seniors will study psychiatric nursing at the large new Moccasin Bend Hospital. Also senior nurses will take clinical work in public health nursing at the new Chattanooga-Hamilton County Health Center. Florence Culpan is in charge of the psychiatric study, and Miriam Kerr is in charge of the public health nursing. In over-all charge of the division of nursing is Dr. Harriet Smith.

► Grand Ledge Academy's opening enrollment for this term was 176, the largest in its history. It includes 92 boys and 84 girls—the first time the boys have outnumbered the girls at GLA.

Teach
for Successf

Emily S. Bee

IN THE modern search for improvement in teaching-learning situations many educators have realized that something has not been just right with the traditional classroom procedure. The results have not been too satisfactory. As a result, experimental research has been dipping into well-established and time-worn practices to see if they were the best after all.

One of the challenged areas has been the system of holding to rigid grade levels, as they have been developed during the past century. However, the results of the experimental procedures to better this situation have not been entirely successful. Some, in fact, have been stillborn; others have passed away in infancy, while others have been enthusiastically acclaimed by parents and teachers alike. Why this discrepancy? the serious student asks.

It is evident from current reports concerning the variety of so-called nongraded programs, that merely changing the organization of a school is not sufficient. The problem that appears vitally in need of solution entails the necessary adjustments in teacher understandings and attitudes before successful ungraded primary classrooms may be established.

The graded system allowed for neat, logical packaging of prescribed tasks for children. Children could be categorized according to their grade level, and the school machinery could move smoothly forward. Whether the work offered on a particular grade level fitted the needs of an individual child or group of children was not the point. The children were squeezed or stretched to fit the program. If this became an impossibility, either the child was failed or he was allowed to "skip" into the next higher package of the course of study requirements.

The probings of modern students of psychology have thrown ever-increasing light on the problem of how children learn. General concern over the large number of failures and dropouts has shaken the security of the long-established pedagogy of the elementary schools.

Mrs. Bee is currently teaching, with her daughter, an experimental nongraded Seventh-day Adventist school in Carlisle, Pennsylvania. It is planned to publish a report of this experiment in a forthcoming issue of THE JOURNAL OF TRUE EDUCATION.

djustments Necessary
Ingraded Classrooms

When the effects on individual pupils of the promotion-failure policy were studied, the results seemed to indicate that the "achieve or fail" policy acted as a spur to those who were in no real danger of failing anyway, but did not motivate the underachievers. Therefore, in a real sense its effectiveness was lost. The results of such a program on the mental health of the pupils remains an unmeasured factor, notes Kowitz and Armstrong.[1]

In the final analysis teachers have always proved to be the key figures in any school learning situation. The attitudes held by these teachers stem from their philosophy of education and their belief in how it should be accomplished. However, too often this has been done without thoughtful appraisal of all the implication of such a philosophy for teaching procedures. The bindings of habit and traditional practice have been accepted on the basis of age and respectability.

Surely it will be good for the teachers of Seventh-day Adventist schools to appraise their objectives, their aims, and their purposes in the light of the Christian philosophy they represent. Just where, for instance, does the concept of "grade level" fit into such statements as these:

> He must have also the tact and skill, the patience and firmness, that will enable him to impart to each the needed help—to the vacillating and ease loving, such encouragement and assistance will be a stimulus to exertion; to the discouraged, sympathy and appreciation that will create confidence and thus inspire effort.[2]
>
> He is not merely to accomplish the daily tasks, to please his employers, to maintain the standing of the school; he must consider the highest good of his pupils as individuals, the duties that life will lay upon them, the service it requires, and the preparation demanded.[3]

Should a child "get through" school, or are the school experiences to become a molding of the pupil's optimum individual development? What part of his development is apart from his academic achievement? The school offers a framework for learning. Does it fit the Master's blueprints? What constitutes truly successful schooling from the standpoint of learning outcomes for pupils? These are questions that deserve thoughtful answers.

Since attitudes are the springs of action, let us examine a few that necessarily must be radically revamped if one is to visualize the needs of a nongraded type of school practice as it differs from the traditional school program. Removing grade lines does not in itself necessarily change the functioning of a program. A nongraded program is the experimental answer to the need for self-progress of pupils rather than their competitive ratings. It is an effort to provide for the whole child as he learns to understand his needs, his limitations, and his potential development as a unique individual, yet in company with other individuals of similar needs and abilities.

Just where does the idea of a "grade level" fit into this picture? How infallible is such a concept? Where does it come from, and of what value is it? The mere thought of not fitting children's learning into such neat, logical patterns leaves some teachers with the feeling of being set adrift on a heaving ocean filled with deadly icebergs. Yet scarcely any of them would fail to admit that individual children are not equally advanced in all their subject areas. Tom may be a whiz at science yet detest the thought of grammar or history. Virginia may "love" to read, yet flounder hopelessly in mathematics.

And the graded textbooks—how infallible is their "grading"? Where did the authors of these texts get the authority for apportioning this material to these grade levels? Are they written to fit the needs of children, or to provide a logical lock-step pattern of advancement "through" school as required by the fetters of custom and tradition?

Unless the attitudes of teachers are freed from traditional "graded" concepts, the nongraded curriculum may be merely a new set of standards and grading under a different set of names.[4] The confusion in general circles over just what an ungraded program includes is caused in part from the uncertainty of meaning of the terms used, and the different meanings attached to the overused terminology such as reading levels, flexible grouping, evaluation, and similar labels. A clarification of terms not only could be enlightening but is essential to common understanding and purposeful progress.

When the teacher incorporates the following counsel into his viewpoint, he is ready to profit from the freedom the new nongraded program affords.

With the dull pupil he should bear patiently, not censuring his ignorance, but improving every opportunity to give him encouragement. With sensitive, nervous pupils he should deal very tenderly. A sense of his own imperfections should lead him constantly to manifest sympathy and forbearance toward those who also are struggling with difficulties.[5]

Needless to say, parents need briefing on the change in outlook, evaluation techniques, and general procedure of the nongraded school in order to secure their cooperation and support. That this is not an impossible task is evidenced by the report of the evaluation of the ungraded primary cycle of Flint, Michigan, schools.[6] Ninety-seven per cent of the parents favored the program. Need we add that the parents had been oriented to the plan and had agreed to its implementation? Teachers must be willing to accept this responsibility of parent orientation and education, however, since the professional information is derived from the educational field.

To understand child development and child relationships becomes a critical necessity in the building of a successful ungraded organization.

All children have a desire for approval. Under the system of giving grades, the child who does average work does not merit approval particularly. He is expected to do that quality of work. The underachiever has no hopes for approval, while the child capable of overachieving is not challenged to working up to his capacity. It is just too easy for him to command top grades in comparison with his fellow classmates.

Research studies point out that the pupils who experienced success tended to have a more realistic attitude toward both success and failure than those pupils who had experienced failure in their work.[7]

This shows again that the limitations of successful feelings engendered in competitive rating work real harm to many boys and girls who could experience success in relation to their own pattern of growth in a truly nongraded program. The marking plan of "S" and "U" in relation to what is "satisfactory for you" has been shackled with the atmosphere of competition till it has too often degenerated into just another means of competitive rating among the primary pupils.

Continual success or continual frustration are both alleviated in a system where individuals are evaluated and inspired by their own limitations and possibilities.

A noteworthy bit of evidence for the superiority of a democratic ungraded situation is reported by Shopski[8] on the study of the ungraded primary reading program of the Milton, Vermont, public schools. She reported that children of each level of ability were benefiting from individualized instruction, the difference being greatest for those of very superior intelligence. However, she also reports that less than half as many of the children of low ability spend four years in the primary, as they would if the question of promotion was taken up at the end of their first year of school.

Surely, to quote Thomas D. Bailey, "In education as in everything else, we cannot do today's jobs with yesterday's tools and be in business tomorrow."

The challenge to develop all the faculties of each individual strikes a sympathetic chord in the heart of every true teacher whose direction is constantly in search of something better in this greatest of tasks—the development of each student to his greatest potential for the joy of service here in the challenging days ahead, and for the everwidening development of eternity.

The weaknesses of the graded system are painfully evident; success in a truly ungraded situation is being accomplished where teachers, parents, and administrators come to understand ungraded classrooms as gardens for learning, where each tender plant is nourished and pruned according to his individual needs, capacities, and rate of development.

What we need for tomorrow is understanding and adaptable teachers today, teachers who are expendable, teachers who are inspired with the possibilities that unfettering from graded shackles hold for their pupils and for themselves as well.

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[1] G. T. Kowitz and C. M. Armstrong, "The Effect of Promotion Policy on Academic Achievement," *The Elementary School Journal*, vol. 61, no. 8, May, 1961, pp. 442, 443.
[2] Ellen G. White, *Education*, p. 280.
[3] *Ibid.*, p. 281.
[4] Alexander Frazier, "Needed: A New Vocabulary for Individual Differences," *The Elementary School Journal*, vol. 61, no. 5, February, 1961, p. 267.
[5] White, *op. cit.*, p. 292.
[6] Vivian Ingram, "Flint Evaluates Its Primary Cycle," *The Elementary School Journal*, vol. 61, no. 2, November, 1960, pp. 76-80.
[7] John Goodlad and Robert Anderson, *The Nongraded Elementary School*, New York: Harcourt, Brace and Co., 1959, p. 1.
[8] Mary King Shopski, "Ungraded Primary Reading Program: An Objective Evaluation," *The Elementary School Journal*, vol. 61, no. 1, October, 1960, p. 45.

► The Education, Administration, Counseling, and Teachers' Section of the District of Columbia Nurses Association had its monthly meeting on the Columbia Union College campus on October 3. Helen Chilson, instructor in nursing at CUC, gave a program, "Living in Wartime"—a realistic presentation of her own experience during the invasion of China by the Japanese. The nursing faculty served as hostesses at the dinner prepared by the home economics department. Metta Hudson, associate professor of nursing and chairman of the disaster committee for CUC, gave the visitors a tour of the civil defense emergency hospital that is on permanent loan to the nursing department. Washington Sanitarium was included in the tour, with emphasis on the rehabilitation program.

► A ground-breaking ceremony for a new church building at Pacific Union College is planned for February, 1963. The auditorium is to have a capacity of 1,500 to 1,800.

Research With Undergraduate Students

Donald D. Snyder

PROFESSOR IN PHYSICS
EMMANUEL MISSIONARY COLLEGE

UNDERGRADUATE research participation has been in the bulletin of Emmanuel Missionary College for some twenty years or more. The effectiveness and level of activity have fluctuated immensely with varying staff and student interests and abilities. Since joining the staff two and a half years ago, I have pressed for an increase in emphasis of this important phase of the training of physicists. Since Emmanuel Missionary College is a liberal arts college offering the Bachelor's degree, the undergraduate students do not have opportunity to observe or interact with graduate research programs. A similar situation exists in most small physics departments. Thus, I feel that it is more important for the smaller departments, not offering advanced degrees, to provide undergraduate research experience for their majors than it is for the larger Ph.D.-granting departments.

More specifically now, I wish to share with you a recent experience involving a research project on which two of my students worked. The problem was to study the feasibility of a low-cost personal radiation rate meter using solid-state phenomena and, if possible, to develop working models. One of the students was connected with the project through most of his senior year and the summer following graduation; the other student worked on it only during the summer that preceded his senior year.

The students carried out much of the library search to determine what success others have had with similar devices and to ascertain the probable conditions under which such a rate meter would be used by an average person. It was concluded that the device should operate in the range of .5 to 400 roentgen/hr. and should be primarily sensitive to gamma-radiation.

Characteristics of several types of sensing elements were studied for possible utilization in a device. Among these were liquid scintillators, solid scintillators, fluorescent screens, photoconductive cells, silicon solar cells, and ionization chambers. Once the radiation has been detected, it must be presented so as to be readable by untrained persons in rather pressing circumstances—after a nuclear attack. Among the various read-out schemes considered were the following: (1) electrometers of various configurations, (2) graduated light filters, and (3) flashing neon bulbs.

Two devices were constructed and briefly tested. One involved an electroscope essentially in the galvanometer position of a Wheatstone bridge where one of the arms included a photoresistor. The other was based on a relaxation oscillator circuit where the leakage resistor was a photoresistor. I will not take time to describe those devices in detail; however, I have a few copies of our report of this project for those who are interested in them.

Let us now turn our attention to the aspects of the project that are of particular interest to us as physics teachers.

From discussions with conferees at the Denver conference in August, 1961, and from various other reports, I have been impressed by the number of physics teachers who have serious reservations concerning undergraduate research participation. There are, roughly, three aspects of such a program that are of pedagogical interest to the teacher. These are presented in the question, What are the effects of such a project on the students in terms of (1) learning, (2) personal relations with staff members, and (3) students' future plans? I will discuss these individually.

The effect of such participation on the students' learning experience is extensive and cannot be duplicated with a textbook or laboratory experiment. Participation in the details of a library search, the setting up of a problem, the analysis of data, the frustrations of experiments that don't work, the joys of those that do, and the multitude of other ups and downs of research provide the student an acquaintance with professional physics that can be obtained in no other way. The interdependence of the various fields of physics, as well as the usefulness of related disciplines, is best observed in such a research program. Perhaps the effect on learning can best be summarized by a statement made by one of the students: "This experience was worth more than any ten courses I took in college." A bit overemphasized perhaps, but certainly in the right direction.

Personal relations between the staff member and

the student under such close cooperative effort are greatly enhanced. First of all, the student finds out, in case he hasn't before, that you as the teacher and the books don't have the answers to all the questions he may ask. The fact that you are jointly pursuing a problem without a known answer provides a camaraderie and freedom of exchange that do not exist in the traditional student-teacher instruction processes. Such an experience helps the student in his professional advance and provides the teacher with a valuable insight to the student's potential—to say nothing of the enjoyable social exchanges.

This brings up the third general aspect, the effect on the student's future plans. A research participation project gives the student a foretaste of graduate school, as well as the life of the professional physicist. Such experiences make the student's plans for the future easier to formulate and more meaningful. Of the aforementioned students who worked on the project, one is presently enrolled in a graduate school. The other student, now a senior [this article was written during the 1961-1962 school year], is considering a try at graduate study.

There is yet another effect of undergraduate research participation. The other undergraduates have a vicarious association with this exciting experience. They ask questions, offer suggestions, et cetera. In general there is an over-all increase in the interest of the students enrolled in physics courses.

As you can tell, I am enthusiastic about undergraduate research programs for the smaller schools. I would be somewhat less than scientific if I did not see and report at least some of the difficulties of such a program. Probably most outstanding is the problem of time—this is not insoluble, because we all find time to do the things we really want to do. Another potential difficulty is that of a student losing interest or motivation. Such a foot-dragger can be a real thorn to cooperative effort. Finances are always a problem, it seems, but several agencies are interested in helping out in this area. We had assistance from the U.S. Public Health Service. Other Government agencies, such as the National Science Foundation, and some private foundations have money available specifically for undergraduate research assistance. Then, oftentimes the student will not stay with the project through completion. This may be due to graduation or some other change in the student's program.

On balance, though, I feel that the factors in favor of undergraduate research far outweigh the difficulties that may exist. My brief experience with directing undergraduate research in several areas of physics has convinced me that the student benefits in a singular way and the director is constantly reminded that he doesn't know all the answers either. Furthermore, such research activity helps keep the "old prof" from growing stale.

In closing, I wish to express appreciation to the U.S. Public Health Service for its support of the personal radiation meter project. And for those of you who are wondering whether to try an undergraduate research project I recommend that you go ahead and try it.

Flowers

Minor D. Plumb

Clusters of color, born to behold,
Enshrined in green, alive in gold,
Transcend the reasoning mind of man
And tell of the love of the Maker's plan.

All is not lost, dear friend of mine,
For ev'ry flower is made to shine.
So look up in faith and strengthen your heart,
Share the bouquet—its fragrance impart.

You who are teachers of children so fair,
Notice the flower of each in your care.
Guide them with tenderness—sometimes with strength;
But always with love and with patience at length.

Then in that day when our God shall come
To settle accounts and conflicts begun,
Flowers complete that have bloomed at our feet
Will be gathered with us in His arms so sweet.

Then who shall say it was wasting our time
To share the bouquet of beauty sublime?
Ours the joy, the laughter sweet,
Forever fragrant, with flowers replete!

A partial group of the 52 who entered teaching.

Fifty-two Teachers in 1962 Graduating Class

Else Nelson

ASSISTANT SECRETARY OF EDUCATION
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WHEN school closed at Pacific Union College last spring, fifty-two seniors or M.A. candidates planned on teaching careers, and forty-five had completed a program of teacher education leading to State and denominational teaching credentials.

Of these, thirty-seven had already accepted appointments to denominational teaching positions; three had received draft notices; three planned to be married after graduation; five planned to complete M.A. programs; two had accepted teaching positions in public school; and two were still undecided as to their future plans.

Those teaching in elementary schools include: Rosalind Hanson, Loma Linda; Bonnie Hunt, Sacramento; Charlotte Machida and Harriet Takahashi, Hawaii; Jean Natterstad, Oregon; Lois Jenson, Santa Cruz; Selma Shafer, Canada; Ruth Roth, Paradise; Ramona Ovas, Lynwood; Ken Wickersham, Redding; Myron Whiting, Walmar; David Crew, Bishop; Bob Atkins, Chico; Donald Graham, Burlingame; Gilbert Plubell (M.A.), Hawaii; Roger Ley, Lynwood; Malcolm Graham (M.A.), Canada. (Schools with no State indicated are in California.)

Those teaching in academies are: Terry Blunden, Spanish, PUC Academy; Robert Dennis, music, Loma Linda; Darald Edwards, industrial arts, Thunderbird (Arizona); Charles Stevens, physical education, Monterey Bay; Ted Uren, accounting, Milo (Oregon); Sam Vigil, Spanish and history, Armona; Marlene Walton, physical education, Sacramento; Marvin Seibel, Bible, Rio Lindo; Frank Amato (M.A.), Bible and history, Napa; Bill Hull, Bible, Lodi; Norma Farquharson, registrar, Lodi; Fernando Salcedo, Spanish, Lodi; Bob Kalua, physical education, PUC Academy; Farell Brizendine, physical education, San Diego; Howard Hardcastle (M.A.), English, Rio Lindo; K. P. Matthews (M.A.), business, India; John Odom, science, PUC Academy.

► New faculty members at Walla Walla College are: Joseph N. Barnes, assistant professor of religion; Donald F. Blake, instructor in biology; John R. Burns, associate professor of English; John W. Christian, instructor in history; Sandi Clough, assistant in the library; M. S. Culver, dean of men; Tom Dalson, instructor in engineering; Loren Dickinson, instructor in speech; Vicki Konerth, instructor in secretarial science; William D. Pearson, eighth-grade teacher at the Rogers Elementary School; Duane Ragan, instructor in education; William L. Rea, fifth- and sixth-grade teacher; Carolyn Rhodes, instructor in music; John F. Stout, instructor in biology; Robert Tininenko, supervisor in history, WWC Academy; and Orvin Wagner, instructor in physics.

► Cyril F. W. Futcher has taken up work as director of admissions and records at Southern Missionary College. He formerly taught history and mathematics at Columbia Union College and is presently writing the dissertation for the doctorate in education from the University of Maryland.

Teacher of Forty-eight Years

Marcedene Wood

ENID SPARKS, shown in the picture with some of her pupils, has taught forty-eight years in Seventh-day Adventist schools—in Idaho, Washington, and Oregon.

As a child, she liked school so much that she never had to be told to do her homework, and she was almost through secondary school before she ever wanted a summer vacation.

Because she showed ability to tell stories and to teach, her instructors, including Mrs. Alma McKibben, encouraged her to become a teacher.

"I have always wanted to teach," she says. At the age of twelve she was children's division leader in her church, and at seventeen she led the children's division at camp meeting.

Miss Sparks is the author of a number of books, magazine articles, and stories. Referring to the fact that she always shunned creative-writing classes, she says, "No wonder I worked five years on *It Did Happen!*"

Some remarks others have made about Miss Sparks are significant: "She surely keeps up with her methods"; "You can be certain that she always keeps ahead"; "If Miss Sparks says so, that's that."

Jess Hayden (now Dr. Hayden of Loma Linda University) was one of her first-grade pupils. Years later she taught his youngest brother, Stephen Joe. One day early in the school year, Stephen went home and told the family all the things he could do in school while Miss Sparks's head was turned the other way. Jess said to him, "You have a surprise coming; when Miss Sparks takes hold of your arm, you will suddenly decide to do what she wants you to do. I know. I was there once."

Elder Walter Flaiz once visited Miss Sparks's tengrade school in the hills of Idaho, "The Land of Adventure." He took back with him pictures of her on snow skis, on a race horse, and on a burro, to prove to teachers-to-be that there need never be a dull moment outside the classroom, as well as in it.

She tells the experience of years ago of getting a cartoon through the mail from her mother that said, "Alas, I woke one awful morn and found that all my friends were married." Another teacher accidentally put it in an envelope that went to the educational superintendent. A few days later when he visited her he gave her some fatherly advice on the value of companionship, and insisted that he didn't want her to become a confirmed old maid. Then she says that recently Elder Raymond Bresee, with whose wife she had taught, said to her, "I have never understood why you never married." She answered, "That's easy; the ones I wanted I couldn't get, and the ones I could get, I wouldn't have."

As all teachers do, Miss Sparks has experienced the feeling that teaching is sometimes a rough and thankless job, but here are her reasons for not trying some easier profession:

"First, there is Steve, who wrote on his second-grade arithmetic paper, 'I luve U, teecher.' And there's the little boy who rode with my uncle one day and remarked, 'My teacher is Miss Sparks. A mighty fine teacher she be.' Then, there are those of my students who have found their places in the work of the third angel's message—doctors, nurses, ministers, missionaries, and their wives. (Just this moment I think of Elder Fordyce Detamore, and Elder Dick Hayden of South America.) I smile as I read of their accomplishments, and I say to myself, I taught them to read. And above all, I trust I helped them to learn to pray and love the Bible."

► Principal Vernon Koenig of Lodi Academy received the Ed.D. degree from Stanford University on June 17. His dissertation dealt with principal-teacher relations in Seventh-day Adventist secondary schools; his field of concentration, educational administration.

► N. O. Matthews, head of the mathematics department at Canadian Union College, has been granted a scholarship from the University of Alberta. He will be on a leave of absence from CUC for three years working toward the Ph.D. in education.

What the SCHOOLS ARE DOING

► The dedicatory service for the new addition at the John Nevins Andrews School, Takoma Park, Maryland, was held May 29, 1962. W. A. Howe, Central Union secretary of education, was the guest speaker, and the Potomac Conference president, H. J. Capman, led the service of dedication. The new addition, including five classrooms, a 60-foot library, and an auditorium with 700 capacity, enables the school to accommodate 450 students and its 25 teachers. The auditorium is named in honor of Heber H. Votaw, who served as board chairman for 24 years. At this service Elder Votaw was also named board chairman emeritus, this honor being conferred by E. J. Barnes, superintendent of education of the Potomac Conference. Elder Votaw, since this service, has passed to his rest.

► The following have been added to the faculty of Bass Memorial Academy (Mississippi): James E. Edwards, church pastor and Bible teacher, coming from the St. Charles Avenue church in New Orleans; Clifton A. Keller, teacher of science and mathematics, and a recent graduate student at Washington University, St. Louis, Missouri; Eileen B. O'Brien, instructor in French and English, and a graduate of Emmanuel Missionary College; and Ralph D. Peterson, also of Emmanuel Missionary College, industrial arts and general mathematics teacher.

► Norman Smith, Union College's top student in general chemistry last year, received a *Handbook of Chemistry and Physics* as an award for his achievement, and will soon represent UC in a competitive examination with other top students in the Midwest. Smith, a sophomore, received the yearly achievement award from the Chemical Rubber Publishing Company of Cleveland, Ohio, for his superior grade-point average.

► The "People to People Program," a national project, is being initiated at Pacific Union College. It is designed for the international students on American college campuses, with the hope that they will take a positive impression of America to their homelands. A part of the program is a Brother-Sister Committee, to establish more personal contact between American upper classmen and international students, and a Hospitality Committee that will promote a community interest in the international students.

► The Southern Missionary College chapter of the American Temperance Society won the national plaque for having the most activities of any college chapter in the United States. J. M. Ackerman, associate professor of education, is sponsor of the Collegedale chapter of the ATS.

► At Paradise Valley Hospital (California) a Teen-Aide Volunteer program has been added. Twenty-two charter members, most of them from San Diego Union Academy, have been learning how to serve patients and help with errands and utility duties. At graduation, on July 22, they first appeared in candy-stripe uniforms to watch the seniors in the school of nursing receive their diplomas, some seeing themselves performing the same inspiring role in another half dozen years.

► Among high-honor students at Helderberg College is Margaret Raitt, who not only was awarded distinction but came first in the National Examinations of the Republic of South Africa Department of Education, Arts and Science. Rosalind Neuhoff and Marie Keet earned distinction in diploma typewriting, and in the National Senior Examinations held at the same time, further distinctions went to five students in typewriting, to three in shorthand, and to one in bookkeeping.

► Duane H. Anderson and F. William Lowe, Bible teachers at Auburn Academy (Washington), are sponsoring a Voice of Youth evangelistic campaign in the Tacoma, Washington, SDA South Side church. Approximately 75 AA students have signed up to present the sermons and help with ushering, special music, advertising, and finance. Beginning on October 14, the meetings will continue until December 16. In a workshop previous to the opening date, students prepared for the evangelistic campaign.

► Maybelle Vandermark, former assistant secretary of the General Conference Home Missionary Department, is the new dean of women at Southern Missionary College. She replaces Alfreda Costerisan, who resigned because of illness.

► New administrative staff members at Union College include Robert Britain, dean of men; Dallas Simpson, assistant dean of men; Mrs. William Nordgren, second assistant dean of women; Chloe Foutz, assistant librarian. New faculty additions include three in the music department—Lyle Jewell, Robert Murray, and Marvelyn Loewen. Bruce Ronk and Margaret Gemmell are new English instructors. Richard Burton is an instructor in secretarial science; Gene Johnson teaches biology; and James Row is research instructor in chemistry.

► A library handbook called *Help Yourself to Knowledge* has been designed by Lois Walker, librarian, and edited by Barbara Phipps, associate librarian, at Pacific Union College, and will be distributed free to all PUC students. The manual gives information about filing, the card catalog, library rules, and other data.

► New staff members at Grand Ledge Academy (Michigan) for the present term include H. D. Lawson, principal, formerly principal of Highland Academy (Tennessee); Elaine Derby, instructor in English, former teacher at Laurelwood Academy (Oregon). Louise Moon has assumed the duties of registrar in addition to her work as secretary.

► Enrollment at Laurelwood Academy stands at 411, surpassing the 402 of last year, then highest of the previous eight years. Seven staff members have been added, making the student-staff ratio the recommended ten to one.

► A new piece of equipment at the Walla College laundry does an efficient job of cleaning and restoring feather pillows of their original softness and makes them germ free. Killing 95 per cent of the bacteria with ultraviolet rays and ozone, the machine lessens possibility of contracting disease from a pillow. Gerald E. Skidmore, laundry superintendent, explains, "Although you may get over a cold, your pillow doesn't. The germs are still there waiting for the next time you lose too much sleep." More than $5,000 in student wages is earned each month at the WWC laundry.

► The dean of students office at Andrews University now has direct supervision of all student personnel in both graduate and undergraduate divisions, according to John W. Cassell, dean of students. In the past the dean of students was responsible only for the undergraduate division. The student affairs committee will have control over all student extracurricular activities in all divisions. Also the student testing service is being expanded so that academy seniors will be able to take interest and college entrance tests before coming to college. Foreign students from all divisions will be welcome to bring their visa and other legal problems to the dean of students office.

► The Pacific Union Conference, in connection with the educational program of the colleges and academies of that union, conducted 14 Medical Cadet Corps with an enrollment of 687 men during the past term. Two official inspections were made, one by the Pacific Union commander, Maj. Harry Garlick, and one by the national commander, Col. Clark Smith. All the corps reached a high level of efficiency both in character guidance and military aspects. The Thunderbird Academy Corps under the command of Second Lt. Winston DeHaven, MCC, was the outstanding corps of the year. For this achievement the Thunderbird Academy Corps was awarded a trophy at the southern area bivouac. Each year a similar trophy will be offered to the outstanding corps of the year.

► H. J. Capman, president of the Potomac Conference and chairman of the Shenandoah Valley Academy board, has announced to students and faculty of SVA that a ground-breaking ceremony will be held during the 1963 camp meeting for the $500,000 boys' dormitory, Price Hall.

Editorial News and Views

(*Concluded from page 32*)

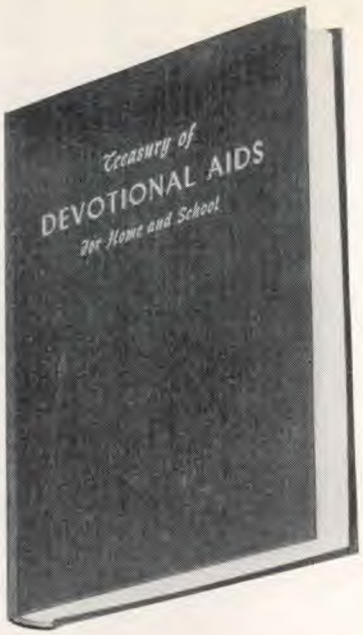
education, are countries that have high per capita incomes, regardless of their national resources. For instance, the United States, Denmark, and Switzerland all have a high standard of educational development, and the citizens of all these countries have a high per capita income. However, of the three countries, only the United States is rich in natural resources. On the other side, Brazil, Mexico, and Colombia are countries with low educational development, comparatively speaking. All three of these countries have very low per capita income despite the fact that they are rich in natural resources.

Despite the fact that connections between education and income are complex, specialists who have studied the matter agree that there is a definite relationship between the educational development of a country and its per capita income, regardless of the condition of its natural resources. Businessmen agree that one of the best things for business in a country is for that country to have a booming educational system. It is clear, therefore, that one of the main items in the improvement of underdeveloped areas of the world is for those countries to develop a strong educational program that is within the financial reach of the rank and file of the citizens.

A New Idea in Health Education The far-reaching effect of a simple program in health education has been demonstrated at an elementary school in Dallas, Texas. Emily Scott, physical education teacher for girls, grades one through six, has emphasized to students the great value to one's health of walking or riding a bicycle. Walking or bicycling to school is one of the requirements now in the school's physical education classes. Nearly everyone walks or rides a bicycle to the school, holding traffic around the school buildings to a minimum and eliminating parents' car pools. We note that in our schools many of the children who live comparatively close insist on being driven to school in automobiles. We would do well to take a cue from this teacher in the public school.

► R. H. Howlett, former principal of Monterey Bay Academy (California), has accepted the principalship at Sandia View Academy (New Mexico). Filling the vacancy created by Principal Howlett's leaving MBA is C. W. Jorgensen, previously employed as principal of Broadview Academy (Illinois). Ralph Bailey, former principal of Grand Ledge Academy (Michigan) has taken the position as principal of Broadview Academy.

► Ivan G. Holmes, instructor in chemistry at Emmanuel Missionary College, will spend the next two or three years at Oregon State University, Corvallis, Oregon, to complete work on the Ph.D. degree in physical chemistry. Bruce D. Powers has completed the M.S. degree at Michigan State University and has joined the EMC chemistry department. Dwain L. Ford also joined the department, having received the Ph.D. degree at Clark University this year.



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Editorial NEWS AND VIEWS

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Instruction in How to Study We have recently seen a new 16-page, notebook-size scriptographic pamphlet entitled *How to Study*. Using a key-word-and-graphics technique, *How to Study* presents its message in clear, right-to-the-point fashion. This booklet is designed to help students at practically any but the most elementary level; it describes why, when, where, and how to study in an attention-getting and interest-holding manner. Used judiciously, this booklet, at 75 cents a single copy and at 40 cents each for 100 or more, could be of real value in teaching young people in some of our schools the root of their basic educational problem. A sample copy may be obtained by writing to Scriptographs, Channing L. Bete Company, Inc., Greenfield, Massachusetts.

Free and Inexpensive Learning Materials School administrators will be interested in purchasing the new eleventh edition of *Free and Inexpensive Learning Materials* put out by George Peabody College for Teachers, Division of Surveys and Field Services, Nashville 5, Tennessee, at $1.50 a copy. This book of 288 pages describes 3,984 items that are available to the teacher, most of them completely free, but some of them costing a few cents each. These range from booklets to films and charts on every conceivable subject.

Breaking Slow Reading Habits Two recent experiments conducted in New York City indicate that a single exposure to a 16-minute film can break the word-for-word reading habits often developed in childhood. One of these experiments was conducted at Pace College on 40 secretaries, and the second among 30 students attending the evening sessions of the school of business of Manhattan College. Reading speed in both cases was increased dramatically without loss of comprehension simply by viewing a 16-minute black-and-white film entitled *How to Cut Your Reading Time*. In the first experiment, reading speed increased 22 per cent; in the second the increase was 33 per cent. Both experiments were conducted under the supervision of the Developmental Research Institute, Inc., of New York, an affiliate of The Reading Laboratory, Inc. The film, produced by McGraw-Hill Publishing Company, Inc., New York, uses the camera eye or first-person technique, in which the facts, written materials, and illustrations are presented in the film as if the camera were the viewer's eye, while the narrator explains each step in the developmental reading process.

College Enrollments According to statistics recently released, the number of students seeking degrees in American colleges has risen 41.9 per cent from 1956 to 1961. The biggest increase was among women, with an increase of 55.3 per cent as against an increase of 33.6 per cent for men. It is apparent that not only are more American students going to college but that a larger percentage of girls are seeking a college education. Enrollment in colleges has risen to 3,891,000—an all-time high according to the U.S. Office of Education. Of this group 2,424,000 were men and 1,467,000 were women. However, of first-time enrollees this fall, 596,000 were men and 430,000 women. This means that practically 42 per cent of all new college students were women.

Graduates' Earning Power According to Dr. Frank S. Endicott of Northwestern University, the U.S. Bureau of Census report reveals that the average college graduate earns over $175,000 more in his lifetime than a high school graduate. This means that a student will earn $44,000 more for each year of college. To break it down still further, he has an increased income of $240 for every day spent in attending classes. Perhaps these startling figures ought to be set forth before students in our schools. It would undoubtedly encourage more of our young people not to cut classes or to drop out of school early, as so many of them do.

There is another meaningful side to these statistics. Every college teacher, in 30 years of teaching, adds a total of $13.2 million to the earning power of the students who sit in his classes; thus the lowly teacher makes a tremendous contribution to the economic welfare of the nation.

Further, the statistics reveal that those countries which have developed their educational system so that large numbers of their young people receive higher

(*Turn to page 30*)