The educational philosophy of John Dewey has often been misunderstood and misapplied. Dewey and his followers sought a way to provide the young with conditions essential to thinking. For all practical purposes, they considered reflective thinking and problem solving one and the same. Consequently, a method of teaching was devised which was based on problem solving: the unit method. In practice, this method permits students to formulate and answer significant questions in their subject fields. Opposition to this method is usually based on an incomplete comprehension of what the unit method of teaching involves. (This essay contains an illustration of the unit method of studying newspapers.) (DD)
The Unit Process

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It was about a year ago that I addressed a group of English teachers in a Southern state. I spoke on trends in teaching English in the United States. More specifically, I discussed unit teaching, integrated programs, creativity, and the role of psychology and guidance in a modern English program. My audience were attentive enough, but I sensed an indifference to what I had to say. When I asked for comments, several said that they had been doing unit teaching. In fact, this seemed to be the consensus of the group. They apparently wanted to know what else could be done.

I was somewhat baffled; for I knew that once they understood unit teaching they would know what else could be done. Finally one of the teachers came to my rescue. She suggested that I have each person take a piece of paper and write a question pertaining to unit teaching that he would like to have discussed. This was done. As I examined the questions, I noticed that a number of them were the perennial ones: How can the English teacher create interest in Julius Caesar? How should book reports be made? How much grammar should be covered each year? Should all seniors be required to read "The Eve of Saint Agnes?" Should literature be taught chronologically or according to types? All of these questions revealed a complete lack of knowledge of unit teaching? Finally, I came to some more forward looking questions, posed by one who said, "Exactly what is a unit?" "How do you go about teaching a unit?" "What is the process?"

It was these latter questions that gave me a clue to the difficulty. I read them to the group and asked for discussion. What is a unit? What is unit teaching? What is the process? Many and varied were the answers I got. Some thought that unit teaching meant taking a topic and sticking to it for a month or so. Thus they conceived of teaching a unit on Ivanhoe or Verbs. Some thought that the prime purpose of unit teaching was to provide for individual differences, little realizing that this was only a secondary matter and that any teacher regardless of method could provide for individual differences if he so wanted to. Of course, some of the teachers had occasionally read an article on a unit some English teacher had taught. Perhaps they had tried such a method, but out of the context of the philosophy involved. Many of these teachers were simply taking suggested methods and trying to incorporate them into the traditional philosophy that had guided their former teaching. Such procedures had led to further confusion of the ends and means desired, since methods emerge from philosophy and give it meaning. The value of our discussion...
lay in the frankness with which these teachers were willing to face their problem. It was not easy for one of them to pave the way and say: Exactly what is a unit? What is unit teaching? What is the process?

I would like to say this at this time. I know of no way to straddle the fence in the teaching of English. It is imperative that philosophy and methods are consistent if worthwhile results are to come. There is no such thing as an effective teacher of English using an eclectic approach. To be eclectic is but to admit that one possesses neither a good working knowledge of existing philosophies nor has yet created a sound one of his own. As one distinguished educator recently said, "To be eclectic is to operate with no philosophy at all." Since very few educators in any generation are able to deal with the difficulties involved in the establishment of a new philosophy, it would be safe to say that the majority of English teachers in America today are modern English teachers, traditional English teachers, or confused English teachers. To those who are modern English teachers, to those who are confused English teachers, and to those who may wish to examine a viewpoint contrary to their own, I address the forthcoming remarks.

II

Grasp of the real significance of unit teaching lies in an understanding of the philosophic point of view with which it is associated. In recent years there has been an intensification of the argument concerning traditional versus modern education. This argument has special significance to English teachers because the unit method of teaching English advocated in the NCTE curriculum guides stems from the modern philosophy of education set forth by John Dewey many years ago. Let me be clear at this point. John Dewey did not introduce unit methods of teaching; he did set forth the philosophy from which the unit process could naturally emerge. Unfortunately, John Dewey was far in advance of the educators of his time. Only a few understood what he had to say. Too often, he was misquoted, misunderstood. Too often, in the years of his day he was blamed for ideas and practices that he mightily condemned. Even John Dewey's most severe critics seldom doubted the validity of the educational philosophy he expressed. They blame him not for setting forth a false philosophy, but rather for recommending educational theory and practice that the average teacher is not intelligent enough to comprehend and use. It is not the purpose of this paper to debate the intelligence of classroom teachers. I will leave this debate to some of the critics of John Dewey who have brought it up. There are probably many factors involved. Cultural lag in social change, over-crowded classrooms, psychological fear of change, these and other factors doubtless played a part. For some reason or other, it has taken most educators at least forty years to free themselves sufficiently to look at Dewey in perspective and discover what he actually said. Those who have done so are amazed at the soundness of his thought.
According to John Dewey, the argument is not progressive versus traditional education; and let me be quick to add that John Dewey belonged to neither progressive nor traditional school of thought. The argument is not whether or not children should master fundamental skills and facts. Both Dewey and his opponents recognized that students had to possess facts and skills to think effectively. The argument is not whether or not children should be taught to think. Both Dewey and his opponents thought children should be taught to think. The basic argument in educational method and practice concerns the nature of education. The basic argument between Dewey and the traditionalists he condemned is a difference in theory of how people think.

The guidance of learning to think in the classroom has for long been under the dominance of formal logic, especially on the upper levels. Formal traditional logic is the science of valid inference as distinguished from a systematic psychological study of how the mind works. Descartes, as long ago as 1637, distinguished between that logic which is useful in explaining to others what is already known and the logic which appears in learning something new. The distinction did not affect teaching until comparatively modern times. John Dewey paved the way. Dewey wanted a functional curriculum not, as many of his critics allege, because he was concerned to make pleasurable pupil activity a substitute for thought, but rather, because he wanted a school program which would provide the young with conditions essential to reflective thinking. According to Dewey, thinking is not listening, it is not memorizing, it is not reciting. Thinking is not formal logic. Although all of these skills are phases of the thinking process, they are not reflective thinking. Thinking is a process through which meanings are developed, clarified, and tested by first hand experience in problem solving. For all practical purposes, Dewey considered reflective thinking and problem solving one and the same.

The foregoing discussion provides background material, but still the reader is likely to ask: "But what does this have to do with the English class?" "What does it have to do with unit teaching?" "How does the mind actually work?" "What is the thinking process?" I believe that it was Kilpatrick who once said "We learn what we live, we learn each item we live as we accept it, and we learn it to the degree that we accept it." I will answer these questions then by relating to you how I myself came to clarify my own knowledge of the philosophy of education which underlies the unit process.

It was eight years ago that I took a graduate course in philosophy of education with John Childs. As I have previously emphasized, unit teaching stems from the philosophy of education set forth by John Dewey; and John Childs was one of his disciples. John Childs believed that Dewey's philosophy had often been misinterpreted and misapplied. He said so, and he set about to straighten out the thinking of this graduate class. Inadvertently, he did this
Our class was a large one, about two hundred students. It was the last class that Childs would teach before age made it mandatory for him to retire. In order to be heard in this small auditorium classroom, it was necessary for class members to stand to recite. Each session began with some puzzling problem or question that the professor brought to light. It was about the fourth week of class that John Childs tried to evoke a discussion on "How people think," for he knew that this was the root of misinterpretation in educational thought. No student volunteered to recite, so he called upon me. I was not prepared, so I told him so. Still he insisted. Again I protested that I was not prepared to recite. Still he insisted. All eyes were upon me. I was desperate. There seemed no way out. Slowly, I got up. I had not the least idea what I would say. I had not read the weekly assignment. As I rose to my feet, I thought to myself, "How do I think?" I was no longer concerned with how other people think. If ever I needed to think, it was then. It was only a few seconds that I desperately dwelled on this topic. How do I think? How does my own mind work? In a flash, the answer came. I think when I am confronted with a problem. Slowly, I looked at the professor. "Thinking originates when a person has a problem. His problem arises out of his everyday experiences in living. This is where he gets his problem." John Childs looked at me and said, "Excellent." In reality he was a very kind man who knew how to give a student support at the proper time. Then, he said, "What do you do when you are confronted with a problem?" Again, I thought of my own situation in the classroom. I recalled that I had hesitated when asked to recite, and in my hesitation I had noted the choices of behavior open to me. I could get up and try to recite, even though I had not read the text. I could refuse to recite and hold my ground. Or I could leave the class. I could think of no other ways to handle the situation. I tried to refuse to recite, but John Childs failed to accept my refusal. I decided that leaving the class would create an emotional tension for the professor, students, and me. Furthermore, it would be a cowardly way out. I saw only one other choice, to try even if I exposed my ignorance. I therefore made that choice. As I reconstructed these recent experiences, all of a sudden, I could give my answer, "When a person has a problem, he makes an analysis of the situation. From this analysis, he is able to determine the best course of action. A person then acts upon his decision." John Childs looked at me and said, "But suppose he fails?" Quickly, I recounted my own experiences, and I said, "Then he goes back and reexamines the situation and decides upon an alternate course of action." And John Childs asked, "When does he know he has made the right choice?" Automatically, I answered, "If it solves his problem. If he gets the results he is after. If it works." And then I added, "To the extent that his thinking processes are adequate and to the extent that his psychological state of mind is sound, to that extent will his actions and results re-
flect the best interest of himself and society.” I thought a moment more and said, “If his problem is satisfactorily solved, he will doubtless make a generalization or try to apply the knowledge gained to new situations of similar nature. He might tell his friends about it when they are confronted with similar problems. In any event, he stores up the knowledge he has gained through first hand experience in problem solving for future use.”

John Childs went over the thinking process, using more technical terms than I might apply. After class, I hurried to the library, rushed to the card catalogue, then to the shelf. I was eager to get John Dewey’s book How We Think. I relaxed as I read a summary of the thinking process. He had said what I had said; only years before. I had discovered what he had discovered, furthermore, I had discovered the key to the unit process. Unit teaching is problem solving, and problem solving is reflective thinking. This is the greatest skill of them all—the ability to solve problems. The steps in problem solving may be stated thus: (1) Thinking originates when a person is faced with a problem, puzzling situation, or dilemma that requires solution. (2) The next step is its location and definition. (3) A further analysis of the problem leads to suggestions of a possible solution or a plan of action. (4) There is then development by experimentation, fact finding, and reasoning of the bearings of the suggestion or plan of action, and (5) Finally, further analysis, experimentation, and observation lead to acceptance or rejection of the proposed solution, hypothesis, or plan.

III

These are the major steps of the scientific method of inquiry, of reflective thinking, of problem solving. It is easy to see how they apply in the acquisition of scientific knowledge, and it is easy to see how the science teacher can apply these principles in a scientific classroom. The English teacher is therefore likely to say, “But isn’t that a method of science?” To those, I reply, “Don’t let the word scientific mislead you. On first thought, you may think that the scientific method of inquiry is good only for scientists. You may say that only science is objective, language is not. But if you think again, you will realize that whatever objectivity may mean, it does not mean the absence of a point of view. The methods of science are also the methods of exposition. All truly great articulate men from Shakespeare to Einstein have known the importance of intuition as well as cognition. They know that their dreams as well as their logic come to repair them and help them out. They are not afraid to dream in symbols of great power, for they know that their contributions and achievements are dependent upon both feeling and form. The method of scientific inquiry, problem solving, reflective thinking—call it whatever you like—is also the method of unit teaching in English.

The foregoing illustration and explanation are included with purpose. While it may sound easy enough to verbalize the thinking process; it is far
from easy to understand it. Otherwise so many people would not be living in confusion today. Those English teachers who do not fully understand the problem solving or reflective thinking process should take careful note of their own actions until they develop an awareness of it. In the final analysis, living a life is continuous problem solving. Sometimes several problems are in the process of solution all at once. For the person who is a good problem solver, life proceeds in an orderly fashion. He uses his communication skills to solve his problems by reflective thinking. On the other hand, a fuzzy thinker lives in chaos. To develop a sensitivity to the thinking process, the English teacher must examine his own daily activities. Examples similar to these will serve the purpose. (1) It is a Friday evening, you are expecting a week-end guest. There are a number of things that you must do before your guest arrives Saturday morning on the eleven o'clock train. How do you proceed? (2) One of your students has become a discipline problem in your fourth period English class. What steps do you take in the solution of this problem? (3) You will soon finish your masters degree. You would like to locate in another area where salaries are better. You are uncertain, however, where you should go. How will you solve this problem. (4) You have been asked to speak at the next PTA meeting on the topic “Current Issues and Problems in the Teaching of English.” How do you prepare for this meeting? (5) In your city an election is being held on the issue of fluoridation of the city water supply. You know nothing about fluoridation but you realize that you should go to the polls and vote. How do you proceed? (6) You would like to buy a new car. Changing from the standard model to a compact. How will you proceed to a solution of this problem? (7) You are overweight. You ought to lose about twenty-five pounds. You have decided to give this matter consideration. What do you do? These are but typical problems that any number of English teachers might face. An educated person approaches these problems in an orderly way. He mentally or otherwise defines his problem, analyzes it from many angles, decides upon a solution, follows through, and evaluates results, as a clue to future action. On the other hand, the uneducated person employs other methods. He may go to a fortune teller, ask a friend to make the decision for him, avoid the problem and refuse to admit he has it, let his problems pile up until he is forced to act from outside pressures, trust to luck to guide him, or employ the method of trial and error. Unless he is lucky, he eventually becomes one of the neurotic personalities of our time. Then he rationalizes his mistakes and frequently says, “That’s the way the cookie crumbles.”

IV

Unit teaching first came into educational discussion about 1926, and Morrison was the first to write about it. Early attempts at unit teaching, however, were quite different from the bet-
ter methods that are known today. Early units were formal in nature and often followed the traditional school in actual method. The five steps of Herbart—preparation, presentation, comparison, generalization, and application—were sometimes used. These formal units were generally teacher conceived and dominated. Students assumed a passive role. Unit teaching as it was first known was primarily a different organization of subject matter. The teaching method showed little change.

In the 1930's and 1940's, English teachers who were studying guidance began to see that non-directive guidance techniques could be an effective English approach. They saw that many of the problems dealt with in guidance offices and homerooms were primarily the problems of all students, and that these problems are also the very content of language and literature in the English classroom. They began to see that the close relationship between guidance and the teaching of English lies in the fact that the English teacher by virtue of the very tools with which he deals—reading, writing, speaking, listening, observing, demonstrating, thinking—plays a vital role in the personal and social development that lies at the very heart of the guidance philosophy. They saw that the tools of guidance are the tools of language. In other words, the tools of language are the key to self-realization. Further analysis revealed that the guidance process itself was a process of problem solving, and that for all practical purposes, non-directive guidance is a reflective thinking process. To these English teachers it became obvious that the focus in English should be upon the power of language in the life of the student, for it is through the language arts that the student is able to get life into manageable form and become that which he has in him to be. Such a philosophy did not mean that there was no need for specialized guidance services in the school, but it did emphasize that the English teacher had a definite guidance function. Thus came into existence guidance units in English.

In 1950, Smith, Stanley, and Shore first wrote about process units, and with their writing came increasing interest in the actual process by which the unit is taught. At about the same time, Alberty was writing about problem solving units in the core curriculum and again emphasizing the importance of both content and process. Although there has been a great deal of argument regarding types of units, such argument is not pertinent to the issues presented here. Regardless of the nature of the material dealt with in the unit, whether it be a concrete problem, abstract problem, theme, or experiment, it is the unit process that is of the essence. The real contribution of these various men and movements was to increasingly emphasize problem solving or reflective thinking as the heart and core of all unit teaching. As time passes on, increasingly English teachers are using a reflective thinking or problem solving approach as they are able to comprehend it.

While the actual problem solving processes may vary a little with each different subject area, the English teacher is
most concerned with how they apply to the teaching of English. It is for this reason that I give an illustration of the earlier and the revised unit approach—the first is the formal teacher dominated approach; the second is the more recent problem solving approach.

A few years ago I visited and observed in the classroom of an English teacher who was conducting a unit on "The Role of the Newspaper in the World Today." This teacher began the unit by announcing that the students were going to undertake a unit on the aforementioned title. The teacher spent considerable time telling the students why it was important for them to make a study of the newspaper, then she told them that the next day the class would set up objectives for the unit study.

In the meantime, class members were to give some attention to the objectives. The next day in class, the students agreed upon a list of objectives for the unit, questions they wished to answer. It was interesting to note that their questions were primarily material that the teacher had given them in the lecture the day before. The teacher then announced a series of activities that the class would undertake in the study of the unit. These activities proceeded in a systematic way. As each activity was undertaken, the teacher brought to the class any materials needed, gave specific instructions on how each piece of work was to be done, and saw that these activities were carried out. Some of the activities undertaken included the daily reading of the local newspaper and a discussion of local news items. No attention was given to the accuracy of reporting. There seemed to be a feeling that if an article appears in the press it is valid. A local newsman spoke to the class and built up a strong argument for his paper and the press in general. He was a delightful speaker and won the support of the group. The students then wrote letters to the editor on a rather non-controversial subject. The letters were graded, returned to the students, and presumably mailed. Students were encouraged to write articles of school interest for the school newspaper. Several did. Some vocabulary words relating to the press were studied. During the month that the unit was in progress, the daily work laboriously dragged on. By the end of the unit, the students were restless and ready for a change. The teacher, realizing that the students had lost interest, decided to bring the unit to an end with a class evaluation. In the evaluation, the students agreed that they had learned how to read the newspaper, recognized the importance of reading, and expected to confirm their interest by making a daily reading of the newspaper a part of their lives. The teacher then announced that it was time to move on to another unit, which would be a study of Macbeth.

After I had observed the teaching of the newspaper unit, I determined to try this unit using a different approach, method, and plan. I decided to use the unit process. My own personal goals were not only to help students improve their use of specific language skills, but also to make them critical readers of newspapers. From past experiences, I
knew that many of the students believed that anything in print was truth. They had probably developed such a belief because most of their educational experience had been rooted in a firm belief in the word of the press. Many had gone through school proving their points with such remarks as this, "I can prove it because I read it in ..." Also I had observed that many of my students equated being arrested with being guilty, considered all advertising as an honest presentation of fact, thought almost any sale a good buy, and generally felt that the highest honor that a girl could achieve would be a photograph in the society section.

Now, I could have told the students the strengths and weaknesses of a newspaper, of its worth and limitations. But I knew that learning comes from within, not from without, and that students are more apt to use fruitfully knowledge gained through self-discovery. For this reason, I presented the unit in a problem solving context. I did this by making reprints of articles on the same subject but from different newspapers. I used three different newspapers for this and selected an article from each on the same topic but with varying interpretations. I passed out reprints of the first article for the class to read. Class discussion followed, but there were few comments. In general, the class members agreed with the reporter. I then gave them a second article to read. There were some comments that this article was not in complete agreement with the first, but not much excitement about it. Then I gave them the third article. But this time students were puzzled at discrepancies and differences of opinion in reporting the news. I let them wrangle over these differences in class discussion before I took action. In other words, I allowed them to come face to face with a felt difficulty and problem. Finally I halted the discussion and said, "What is the issue in this discussion? What is it that you want to know? Let's define the problem."

Now the students entered the second phase of the unit process, when they defined the problem as they saw it in view of their recent experiences. I did not define the problem for the students. Through the use of the chalkboard to examine carefully selected answers, I patiently took time for the students to agree upon a statement of the problem and a series of questions that they should answer if they were to become intelligent readers of the news. Now I asked how the class could proceed to make a study of this problem so as to gain the needed insight. The students suggested numerous ways: (1) Daily reading of different papers to see differences or similarities in reporting, (2) Reading news magazines for a similar purpose, (3) Searching for books in the library that discuss the magazine and newspaper field, (4) Calling in local reporters for class interviews, (5) Getting personal accounts of news reporting from biographies of famous newsmen, (6) Interviewing people in the community who had complained about being misrepresented in the news, (7) Practicing news reporting themselves to see what difficulties arise. I shared in the suggestions
for this cooperative research, but I did not dictate them. For I did not wish to kill initiative and creativity.

Next the class co-operatively agreed upon a plan of action. They then proceeded to carry out their plans, and I acted as a catalyst and guide. As the students began the study and exploration, they found a need to go to the library for resource materials pertaining to the problem at hand. The librarian helped the students find books and materials relating to their study. Perhaps it was necessary for both librarian and students to consult the card catalogue, the Reader's Guide, encyclopaedias, and bibliographies. In addition, students used the library to investigate current magazines and newspapers. It was through the sources of the library, for example, that they were able to compare original articles with Reader's Digest condensations of them. It was from the Reader's Guide that students discovered articles on "How to Read the Chicago Tribune" and "All the News that Fits the Pattern." (April and May issues of Harper's, 1949.) The students found especially helpful William H. Burton's Education for Effective Thinking and S. I. Hayakawa's Language in Thought and Action. Copies of Liebling's The Press and Edgar Dale's How to Read a Newspaper were also found on the library shelves. In addition there were the autobiographies of newsmen and journalists telling their own personal experiences in the newspaper field. The unit took the students to the school library, to the public library, and into the community. It made them active researchers and problem solvers. This is quite a contrast to the self-contained English classroom where students are spoonfed from a single text or several volumes that the teacher himself has brought to them for use. The unit process makes students active seekers of knowledge, makes them creators of their own textbooks as they synthesize the source material.

As the unit proceeded, the students set up class discussion periods, small group discussion periods, panel discussions, class interviews, as well as written assignments to share their knowledge. As the unit ended they evaluated what they had learned about the original problem. Also they established guidelines for the evaluation of newspapers that would guide their future reading.

One final thought in conclusion. You have heard arguments in recent years concerning whether or not high school students should write research papers—some teachers say yes, some say no. I think such statements in themselves indicate a lack of clarification of the unit process. Students taught by the unit process write research papers from early school years on through the senior high school days. Properly done, a research paper is a write-up of a unit of study conducted by the unit process.