This pilot project sought to determine if instruction in achievement motivation would help potential dropouts to complete their schooling. Subjects were tenth grade students in a suburban Boston high school. A one-week residential course during winter and spring vacations was taken by one group of six boys and a second group of four. Equated matched control groups were set up. Course content consisted of learning about the achievement syndrome, exercises in self-study, planning future activities, and learning individual responsibility from group living. Findings show that fully trained boys (those who remained in the course for the full five days) had improved academic performance and better attitudes toward school. On the whole, however, the results are said to be inconclusive. The project gains significance largely because the study is one of the very few which show that intervention can produce a significant improvement in "hard core" problem boys. (NH)
ACHIEVEMENT MOTIVATION DEVELOPMENT PROJECT

WORKING PAPER NUMBER 4

ACHIEVEMENT MOTIVATION TRAINING

FOR POTENTIAL HIGH SCHOOL DROPOUTS

by

David C. McClelland

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Harvard University, Graduate School of Education, Cambridge, Mass.
Achievement Motivation Training
for Potential High School Dropouts

by David C. McClelland
Harvard University

In one of the earliest attempts to develop achievement motivation, Kolb (1965) showed that about 100 hours of instruction, given a few hours a day over a six-week summer course, improved subsequent grades of bright under-achieving high school students, provided they came from the middle class. Lower-class boys showed an initial improvement and then declined in school performance. Methods for giving instruction in achievement were later greatly expanded and tried out extensively for adult businessmen from various countries (McClelland and Winter, 1969). It seemed worth testing the usefulness of these improved methods on further samples of high school students.

An obvious target population is the group of boys who are popularly called "seat warmers"—those who dislike school and are basically waiting for their 16th birthday and a job opportunity so that they can drop out of school. They are a problem to the school, to their parents, and to themselves. Is there a chance that instruction in achievement motivation would help them stay in school and improve their attitude and performance?

The present report is a description of a pilot attempt to answer that question.

Procedure

Recruitment. In January 1966 a letter was sent by the Principal of a Boston suburban school system to 32 "seat warmers" in the 10th grade, inviting them to come to a one-hour presentation about the project. Twenty-two boys attended and heard the course described as something that would help them understand themselves better.
and improve their school work. They all knew they were in serious academic trouble, and were likely to be dropped from school if they did not improve. The course was scheduled for the week of their winter vacation in a rural residential setting on the edge of the Metropolitan Boston area. In individual interviews, 14 said they wanted to go, 2 said "No," and 6 said "Maybe." The program was also explained to the parents of the boys in an evening session at the school arranged for the benefit of those who were curious enough to attend. Parental permission to attend the course was required by the school. Eight boys showed up for the five-day session in the country, two of whom dropped out on the third day.

A second group was recruited in a similar manner for the April vacation. Alumni of the first course were paid to help in recruiting individuals after the general presentation which was attended by 26 out of the 41 invited. From this group and others contacted, 18 said they wanted to attend, 7 said "No," and 9 were in the "Maybe" category. Twelve actually showed up for the course (including 3 who had said "Maybe"), of whom 8 went home on the second day, and one of the third. An additional boy was brought along by an assistant trainer who was his parole officer to whom the boy had just been assigned after having been released from a detention home. So only 4 boys actually completed this course; two alumni of the first course joined them for the last 2 days.

Matched controls. This left a total of 10 boys who had completed the course and 11 who had been exposed to some of it and dropped out. Each boy was carefully matched for age, IQ, and grade point average in the five quarters before the training, with a boy from the large group who had heard about the course, expressed an interest, but for one reason or another had not attended. No boy who had said "No" at the outset was included among the controls. Thus the trained and control groups were roughly equated for initial
expressed interest in self-improvement. One might, of course, suppose that those who actually showed up had more motivation, but the supposition is probably incorrect on two counts: (1) many of the boys in the control group wanted to come but were genuinely prevented by the necessity of work, illness, etc., and (2) subsequent events showed that many who went were not so much interested in self-improvement as they were in having a good time.

Training. The courses were patterned almost exactly after those given for adult businessmen and fully described elsewhere (see McClelland and Winter, 1969). In fact, the key trainer was the same man, Shri M. S. Nadkarni, who had conducted the courses for Indian businessmen. He worked in collaboration with experienced teachers and guidance personnel from the Harvard Graduate School of Education and from the staff of the high school involved. The course inputs included learning about the achievement syndrome (how to write imaginative stories containing achievement imagery and act in games like a person with high n Ach—setting moderate goals, using feedback or performance to correct goals, etc.); some exercises in self-study; planning future activities after the course; and learning individual responsibility from group living.

The first course was, on the whole, quite successful. The six who stayed for the whole time became quite enthusiastic about achievement motivation, its effects on their own lives, and their role in spreading the concept to others in the school. In interviews about ten months later, they made comments like the following:

"Pretty good course. Smartens you up a little. Realize now school is important. Need it to go places. Try to better self and stay in."

"Liked all of it. Before I didn't care about things, my family, nothing. When I left the course, I really wanted to do something. Had a great talk with my father, before never exchanged two words with him. Now when I get bad marks, the n Ach course makes me feel guilty. I am keeping my marks up."

"Excellent, very good course. Learned how to run a business. Helped me decide what I want to do. When I was little I wanted to be a priest. Then decided hairdressing was the job for me. Came back from course and got addresses of schools. Before I was nervous, now I am relaxed and can talk to people."

The second course was a near disaster. A good many of the boys came prepared to cut loose, and they did. What happened can best be described in their own recollections eight months later:

"Stunk! Every time you asked the Indian guy a question, he asked a question back. It was up in a wilderness."

"Mass destruction. Did $1,000.00 worth of damage. Still had plenty of alcohol left. No restrictions. Kids not used to that kind of freedom. Went to our heads. Course brought out insanity. Think I got something out of listening to others anyway."

"Couldn't see the point of it. Saw no purpose to the games. Thought it was a waste. Everybody started with the idea of causing trouble. They went wild. Didn't get anything out of it."

"Had no respect for the group leaders. If stern, the kids would have stayed in line."

The leaders were pretty much the same as those in the first course and so were the procedures, but for a variety of reasons, the right atmosphere was not created. The boys brought liquor with them and responded to the responsibility thrust upon them by "going wild," not sleeping, being rude, not participating in the sessions, deciding they were a "bunch of kooks" the psychologists were trying to pick the brains of, etc. Not surprisingly, most of them left the second day, and they make up 9 out of the 11 of the "partly trained" group. Of the four who stuck it out, most of them had a more positive attitude toward the course later, but a negative attitude toward the "crazy kids" who had gone wild.

The "treatments" obviously leave much to be desired. The full course totaled about 50 hours and contained a full measure of practically all of the 12 inputs described elsewhere (McClelland and Winter, 1969). The partially trained group were exposed to about
10-15 hours of the course, consisting largely of the n Ach scoring system, a self-analytic group session, and some practice with the ring toss game designed to teach goal setting. They were also "exposed" to the prestige inputs of Harvard University, a scientific research project, etc., but obviously the prestige didn't "take," suggesting that what is more important than enumerating inputs in such courses is the total atmosphere they succeed in creating.

Results

Nearly all participants and controls were interviewed in December, January, and February 1966-67, some 8-10 months after training. Some were interviewed again in June 1967. Grades were obtained from the school and averaged for 5 quarters after the training, for a period lasting from February 1966 through March 1967 for the first course and April 1966 through June 1967 for the second course. One full participant dropped out of school and joined the army soon after the course. Four out of 28 in the total pool of control subjects studied dropped out. The numbers are too small to draw any conclusions about the effect of training on dropping out of school, though it should be noted that the course was not specifically aimed to keep the boys in school if it seemed better to them in terms of their carefully chosen goals to do something else.

The main results are summarized in Table 1 where the effects on individual boys from the fully trained group are set side by side with the changes occurring in their matched controls. The matching was done blind on the basis of the first 3 numbers after a boy's name only, without any knowledge of post-training grade point averages. Seven out of 9 of the fully trained boys gained at least a letter grade step in their averages (e.g., from D to D+, or .33 points), as contrasted with only 3 among the controls.
As far as could be determined from the school records, the 3 control boys who showed such marked "spontaneous" improvement had not received any special "treatment." Fisher's exact test shows that the p-value of obtaining such a difference by chance is less than .04 in the predicted direction. The trained boys' overall average rose from a solid D to a low C-, while the untrained controls went from a D to a D+.

As for the partly-trained boys who dropped out, their performance is compared with that of a new control group drawn from the same pool of subjects on an individual matching basis. Five of the subjects appearing in the first control group were also used here to produce close matching. Obviously the slight increase in the average for the course dropouts is more than equalled by a larger increase in their matched controls. As the dropouts themselves said, they got nothing out of the course. It is of some interest to know why they dropped out. Since a number of tests were given them at the outset, it is possible to check for initial differences in various characteristics. They did not differ from those who stayed on fantasy measures of n Ach, n Aff, or n Power, on IQ, on occupational level of father (predominantly skilled blue collar workers), on Debilitating Anxiety Test, on the extent to which they valued achievement or described themselves as internally controlled on Rotter's I-E scale. They only differed significantly on deCharms' (1962) self-esteem scale. Seven out of 11 of the dropouts scored above the group's median score as contrasted with
Table 1
Effects of n Ach training
on grade point average (GPA)
of 10th grade male underachievers

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>IQ</th>
<th>Before</th>
<th>After</th>
<th>Change</th>
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</thead>
<tbody>
<tr>
<td>Steve</td>
<td>18/8</td>
<td>86</td>
<td>1.42</td>
<td>+.82</td>
<td></td>
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<tr>
<td>Bill</td>
<td>17/7</td>
<td>90</td>
<td>1.60</td>
<td>+.16</td>
<td></td>
</tr>
<tr>
<td>Paul</td>
<td>16/9</td>
<td>102</td>
<td>.94</td>
<td>1.36</td>
<td>+.42</td>
</tr>
<tr>
<td>Owen</td>
<td>16/9</td>
<td>122</td>
<td>1.18</td>
<td>(2.3)2</td>
<td>+1.12</td>
</tr>
<tr>
<td>Joe</td>
<td>16/4</td>
<td>113</td>
<td>1.40</td>
<td>1.96</td>
<td>+.56</td>
</tr>
<tr>
<td>Jimmy</td>
<td>16/3</td>
<td>105</td>
<td>.96</td>
<td>1.98</td>
<td>+1.02</td>
</tr>
<tr>
<td>Stephen</td>
<td>16/1</td>
<td>100</td>
<td>.86</td>
<td>1.20</td>
<td>+.36</td>
</tr>
<tr>
<td>William</td>
<td>16/0</td>
<td>105</td>
<td>1.20</td>
<td>.80</td>
<td>-.40</td>
</tr>
<tr>
<td>Bob</td>
<td>16/0</td>
<td>111</td>
<td>.583</td>
<td>1.783</td>
<td>+1.20</td>
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<table>
<thead>
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<th>Before</th>
<th>After</th>
<th>Change</th>
</tr>
</thead>
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<tr>
<td>George</td>
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<td>.90</td>
<td>1.04</td>
<td>+.24</td>
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<td>1.28</td>
<td>1.46</td>
<td>+.18</td>
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<tr>
<td>Ed</td>
<td>17/3</td>
<td>97</td>
<td>.92</td>
<td>1.00</td>
<td>+.08</td>
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<tr>
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<td>17/0</td>
<td>120</td>
<td>1.12</td>
<td>2.24</td>
<td>+1.12</td>
</tr>
<tr>
<td>Mike</td>
<td>16/9</td>
<td>118</td>
<td>1.34</td>
<td>.94</td>
<td>-.40</td>
</tr>
<tr>
<td>Brian</td>
<td>16/8</td>
<td>107</td>
<td>1.16</td>
<td>1.34</td>
<td>+.18</td>
</tr>
<tr>
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<td>16/6</td>
<td>89</td>
<td>.50</td>
<td>.30</td>
<td>-.20</td>
</tr>
<tr>
<td>Ken</td>
<td>15/8</td>
<td>104</td>
<td>1.18</td>
<td>2.20</td>
<td>+1.02</td>
</tr>
<tr>
<td>Kim</td>
<td>15/9</td>
<td>103</td>
<td>.80</td>
<td>1.40</td>
<td>+.60</td>
</tr>
</tbody>
</table>

N=9

Average 104 1.02 1.60 +.58

Number gaining +.33 or better: 7

Partly trained 4 (N= 11)

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>IQ</th>
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Controls (N = 11)5

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|      |     |     |        |       |        |

1. F = 0; D = 1; C = 2; B = 3; A = 4.
2. Family moved to another state; grades as reported by the boy, not exactly comparable but clearly a large improvement.
3. From another school.
4. Dropped out after 1-2 days of training.
5. 5 from the above control group used again here to produce close individual matching.
only 2 of the ten who stayed, p<.05. In other words, it looks as if it took greater self-confidence to go to the staff and ask to go home. The dropouts were also doing somewhat better in school so that they may have felt under less pressure to stay.

The better academic performance of the fully-trained boys after the course is also reflected in other measures, such as days absent from school, which appear to reflect attitude as well as actual illness. In fact, the boys refer to absences often as "skipping school." On the average, the two control groups and the partly-trained group were absent an additional day a quarter in the five quarters after the training as contrasted to the five quarters before. The fully-trained boys were absent one day less a quarter on the average. Or, to put it another way, 6 out of 9 of them went to school more often afterwards as contrasted with 3 out of 9 of their matched controls. The differences are not significant, but certainly suggest a better attitude toward school on the part of the fully-trained boys.

When the boys were interviewed at some length 8-10 months after training, there was still a marked difference in the attitude of those who had been fully trained, as evidenced by their answers to the interviewer's first non-directive question: "What are the most important things in your life? What are the most important things you do or think about now?" Among the 9 boys interviewed from the partly-trained group and the 10 from the two matched control groups, most of the answers concerned sports, having a car, playing
in a band, or just getting out of school. Only 4 out of the 19 boys in these groups mentioned doing well in school or thoughts about work or a career. In contrast, every one of the 9 fully-trained boys mentioned serious education or work-related goals, most of them specific. Only one mentioned a sport as of prime importance to him, but that was because his whole family was in baseball, he was on the town champion team, and furthermore he felt he had to have a college education, which meant studying harder now. The difference between the fully-trained students and the others is highly significant, though it is hard to know, of course, how much they were talking to please someone who represented what was for nearly all of them still a very valuable and respected part of their lives. But the fact that they were able to give details of the plans they had made, or talks they had had about future jobs or schools, indicated that it wasn't all just giving what they knew to be a desired response. They were doing the things that they had said at the end of the course they were going to do. One example, which is fairly typical, will help give the tone of their reports to the interviewer.

Jimmy had decided at the course that he wanted to be a hairdresser. By the middle of his senior year in high school, he reports he will start in the June or September following. He picked it because it pays well and he has really put his mind to achieving his goal. He has a part-time job and will have saved about $500 to use for tuition at the school. He has applied to the school and has an invitation to come for an interview. He says that the course takes 1,000 hours and he can work in the daytime and go to the school at night. He plans to try to get a job at the telephone company while he is going to school, because it is better than the part-time job he has now at a dry cleaners. He is trying for the "honor roll for the first time since 3rd grade" and his grades are up (See Table 1). Obviously he has done a lot of concrete thinking about and planning for his future.
Even William, who is doing less well in school than before the course, says his main concern is "to make something of myself." He has an "urge to work on cars all the time," parks his car, starts to work on it, works for hours straight, forgets the time, doesn't even notice if it is raining, doesn't like school, wanted to go to a vocational school, but couldn't talk his father into it--who wouldn't even let him take the test for it. "My parents would never accept my being a mechanic." His problem, as he sees it, is how to make progress towards his goal in life, which involves mechanics. He has done more with mechanical drawing, but wonders if a four-year hitch in the Air Force won't be the best way to achieve his goal in the end.

Typical of the control boy reports is Ken's. He says sports are most important to him, football and particularly skiing--in winter, snow skiing, and in summer, water skiing. He also spends a lot of time with his girl and is a "bug on mechanics." He used to race go-karts, wants to race his car next year at the Connecticut dragway, has lost his license for speeding. He has never liked school and never does the work. He just wasn't done much serious thinking about his future.

Discussion

What exactly do the results show? It is reasonable to believe that five days of intensive training can significantly change school attitudes and performance, and perhaps even affect career planning beneficially? Certainly any such belief needs to be subjected to a healthy dose of skepticism. The numbers are small, and probably the least adjusted fully-trained boy is not included in the statistics because he dropped out and joined the Army. To be sure, there were dropouts among the controls too, and we can't be sure that the Army wasn't the right course for this boy, but there is certainly room for doubt that the course affected him much.
Furthermore, it must be remembered that the training didn't "take" at all for half the boys--particularly during the second training session, when the majority left after a day or two. Thus if the overall evaluation included every boy who had at least started the training, one would have to conclude that the project as a whole had failed to produce any effects. Isn't it unfair to draw inferences only from the improvement of those who stuck the training out? Doesn't that prove they were "better stuff" to start with?

So far as school performance is concerned, they weren't better, but worse off. And they had lower self-esteem. They appeared to have stayed partly out of weakness rather than ego strength. And it seems hardly fair either to include the effects of training on boys who really were not much exposed to it. Rather it seems sensible to conclude that giving such courses involves, above all, creating an atmosphere in which the boys are interested enough, and under sufficient control, to go through with all the training. While such a conclusion may seem so obvious as to be almost trivial, it does not figure largely in the literature on personality change. On the one hand, if positive results are obtained, as they were here for about half the group, then observers conclude it was "mere suggestion" or the "Hawthorne effect"--forgetting that such a statement means little because it is clear that sometimes suggestion "takes," and sometimes it doesn't. The problem is to find out how to create an atmosphere in which suggestion will take--which is another way of saying that far more than "mere" suggestion is involved. On the other hand, previous research has tended to try to isolate the "educational inputs" (games, fantasy, training, etc.) which are "really" responsible for what changes occur afterwards. Our experience here suggests that this isn't quite the right way to define the problem. It is not a question of this or that input which, when "applied" to pupils, produces this or that effect, but rather a question of what organizational or motivational inputs can create an atmosphere in which the boys are interested enough in the educational inputs to get
something from them. The stress has to be more on the interest value of the inputs, and the structure of the learning situation, than on the exact nature of the study units themselves, at least for boys of this type who have already mentally "dropped out" of school learning situations. Viewed this way, one might conclude that putting on a motivation training course is something like putting on a play. If you succeed in capturing the audience's attention long enough, the message gets across.

Otherwise you have failed and the audience is not influenced. Clearly we have much to learn about how to capture this type of audience.

But even for those affected, how long will they stay changed? The results reported here included what happened for about a year after the training ended. So much else was happening as the course faded into the past, one might well wonder whether it could continue to influence them. Take Bob as a rather extreme example. The summer after the course, he attended an Upward Bound program which he liked very much. The following academic year, during which we evaluated him, he did very well indeed, at one point getting a number of honor grades in various subjects. But in the summer of 1967, he enrolled in another Upward Bound program, which he described as "lousy". He lost interest in school again, was "lazy," "bored," and received nearly all incompletes in the first quarter of the fall term. Was the effect of a couple of good experiences wiped out by a bad one? Or is he just the kind of boy who is erratic--sometimes serious, sometimes not? He now says he is getting down to work again, but there will doubtless be many ups and downs before he ends up adjusted one way or another to the adult world.

The most that can be said for the course is that it seemed to get those who stayed really thinking about their futures and in many cases planning more seriously to achieve goals they had at least tentatively set for themselves. It may not have increased their achievement so much as made them feel more self-confident in planning their futures. Even Bob is still thinking about his plan to open a clothing store.
It would be unwarranted to draw extensive conclusions of any kind from such a small pilot study. It gains in significance largely because it is one of the very few studies which shows that intervention can produce a significant improvement in performance of such "hard core" problem boys. Furthermore, the educational input is cheap compared to some of the expensive failures reported in the literature (e.g., the Cambridge--Somerville Youth Project, see McCord, 1964). For this reason alone, it seems worthwhile following up the promise of the pilot study with a major effort to influence a large number of boys whose academic records make them candidates for being kicked out or for dropping out of high school.

Footnote

1 The work reported herein was performed pursuant to a grant from the U.S. Office of Education, Department of Health, Education and Welfare. This research resulted from the hard work and creative efforts of Manohar S. Nadkarni, Richard deCharms, Knowles Dougherty, John Lennon, Ron McMullen, Steven Solomon, Gordon Alpert, Jeffrey Griffith, David Kolb, and Jim Reed.

References


