Based on the premise that deficiencies in student learning are inherent byproducts of the traditional school structure, this study compares the effects of an experimental curriculum program on student learning with its traditional structural counterpart. The traditional school structure is characterized by a heavy teacher workload, segmented student schedules, and limited individual teacher-student interaction. The Renaissance Program (RenPro) at Masconomet High decreased the student course load and increased the amount of teacher-student interaction time. Students took two 100-minute long courses per trimester. Students also participated in seminars, independent studies, foreign language programs, and physical education. Approximately 80 students, one-half of the ninth grade, volunteered. Initial assessment by the Harvard Graduate School of Education is inconclusive after only one year of program implementation. However, in a comparison of RenPro and traditional students' (TradPro) final examination scores, RenPro students performed marginally better than their TradPro peers. Other preliminary results were improved student-teacher relationships; increased student motivation; greater opportunity for indepth exploration of course material; decreased grading time; and the implementation of more effective teaching styles. Problems cited are student discipline problem- and distrust of the program by the traditional school. However, the findings generally indicate that such programs are feasible alternatives to stimulate students' critical learning and thinking processes. (LMI)
RESTUCTURING THE HIGH SCHOOL: THE RENAISSANCE PROGRAM

Changing a high school is hard work. Changing a high school that's regarded as a good is daunting. When the school is orderly and, by all local measures, academically successful there's very little obvious need to improve. Criticisms of the high school in general such as those that appeared in A Nation at Risk seem never quite applicable to "my" school. Indeed, many polls on education reveal that while most Americans feel the schools need improvement, few are dissatisfied with their local situation. Moreover, factions with an interest in the status quo can point to the school's apparent successes as evidence for staying with what's "tried and true." And while all factions agree that a good school can get better, few want "better" to start with them. The impulse to let change start with someone else within the school or even at another school leads to an almost overwhelming inertia.

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So, when Dr. Joseph M. Carroll, Superintendent of Masconomet Regional School District in Boxford, MA introduced to the District's faculty a concept paper on school restructuring, known then and now as the Copernican Plan, it was met not only with resistance, but also at times with ridicule. Virtually everyone could cite dozens of reasons why the plan would never work and there was a good deal of teacher room talk about ivory tower administrators who would do us all a deal of service if they'd climb down and "take a week of my period 7 class." In addition, there had been in Massachusetts a tax revolt, Proposition 2.5, that dramatically limited the amount of money cities, towns, and school districts could spend. The Copernican Plan in its calling for teachers to run six classes per year rather than five, looked to some faculty members as a way to reduce staff by 20% rather than class size by that amount as the Superintendent claimed. The results were that progress toward implementing or even discussing the sorts of changes the Copernican Plan called for stalled. We conducted school in the "tried and true" way for three years while many teachers solidified their resistance to change and their suspicions about the school administration and School Committee.

In the autumn of 1986 Dr. Carroll declared a moratorium on consideration of the Copernican Plan, a move that seemed to many as redundant since they had already dismissed the
lider completely. He did ask, however, that the faculty of the high school and junior high school (which comprises the entire district) conduct a needs assessment and toward coordinating that project the high school principal and a core of teachers formed the Curriculum Improvement Project. One of our first tasks was to organize a half day in-service project in which the teachers were to answer two simple questions: What do we like about our students? What do we dislike about our students? Teachers split up according to departments and while the answers to the questions were varied, some common themes soon appeared. We discovered that our students, especially those in our Phase II courses, that is our middle level courses, had some serious intellectual and attitudinal deficiencies, despite the fact that most of them went on to college somewhere after graduation. Our kids were not aggressive thinkers: they settled for easy answers to hard questions. Our kids seemed unable to transfer knowledge or skill from one academic area to another. Our kids seemed unable to solve complex problems: they lacked critical thinking skills. Our kids were generally lazy and unmotivated: they took a passive, "teach me if you can" attitude in class. Our kids seemed to feel someone else was responsible for their learning, or that learning itself was just a matter of performing incomprehensible tricks jumping through hoops, until "you got out." And finally, our kids weren't very good citizens:
they seemed unwilling to listen to each other in class, unwilling to have a stake in their school and their own experience in school, and even unwilling to take minimal care of the building they spent their days in: they made the place dirty; they littered. On the other hand, nearly all teachers reported that our kids were really friendly and likable, that they came to school most of the time and got there on time, that they dressed well, and that being with them was, with the exception of the attitudinal and behavioral problems listed above, quite pleasant. In brief, we discovered that we had a population of affable young men and women who were more than willing to slide through their days at school if we'd only let them.

What is significant about that discovery is that it describes high school students almost everywhere. Our findings are in close agreement with those reported by Ted Sizer in *Horace's Compromise*, by Eleanor Farrar and others in *The Shopping Mall High School*, and by John Goodlad in *A Place Called School*. What makes those results even more significant is the fact that there is nothing in the make-up of teenagers that leads them to that unambitious, smiling, sliding ease. In other contexts and at other times young people are full of high energy and capable of deep, adult responsibility. The most dramatic example, perhaps, is the custom of the Australian aborigine walkabout. What our findings and those of others suggest is that there is
something about the high school that leads to the
deficiencies we found. But those of us on the Curriculum
Improvement Project came to that somewhat obvious conclusion
only after we had gone farther with our needs assessment.

The list of problems, of "things we didn't like" was
long and the individual problems were knotty. We did not
think we could solve everything at once and so decided to
spend our efforts where they might do the most good. We
looked, therefore, at the issue of motivation. We thought
that if we could get kids more highly motivated, there was a
chance that the other problems would "solve themselves." It
made a kind of sense to think that if a kid wanted to do
well, that he would think harder, more clearly, be more
willing to use in science what he's learned last month in
math.

So the Curriculum Improvement Project designed another
simple question for the teachers: What motivates kids? And
again we received a host of answers but once we had
organized the teacher responses, what came through as a
strong idea from all departments was that student motivation
grows out of an adult in the school getting to know a kid
well and caring about how that kid performs. Put more
accurately, a student is more likely to become motivated if
a teacher knows him and cares about his performance.

Given that, it was immediately apparent that students
and teachers and time are deployed all wrong in the
traditional high school. At Masconomet in the traditional structure, each teacher carries a student load of about 110 kids spread out over five classes that meet for 46 minutes a day. Kids take 4 to 7 courses and, counting homeroom, lunch, and physical education, are in seven or eight places per day and maybe have to change clothes twice and shower. In addition, it is expected that kids will engage in extra-curricular activities, have a job, date, and be good family members. Not only is it terrifically unlikely that each student will find an adult to know and care about him in this sort of crazed day, but it's also unlikely that the student will ever find time to do the sort of careful, meditative thinking that is a large part of becoming educated. There is very little in a student's or teacher's day in the traditional high school structure that lends itself to any sensible idea of education; there is, however, a good deal of information and student processing going on. It should not surprise us that students present with the deficiencies they do; the high schools are working very well.

The Renaissance Program is an attempt to solve the problems the traditional structure of the high school creates. The Renaissance structure dramatically reduces the number of students a teacher must deal with at any given time, and sharply increases the amount of time per day that teachers and students have to work together. In the
Renaissance Program every student is known well by at least one teacher and usually by more than one. And this means that in a Renaissance class, there is nowhere to hide. Each student participates every day: there’s no back row; no fading into the woodwork; there’s no Horace’s compromise.

During the 1989-90 academic year the Renaissance Program enrolled about one half of the students in the ninth grade. These eighty students, all of whom volunteered for the program, took two courses at a time for sixty days. Classes were one hundred minutes long. At the end of the first sixty days, the first trimester, students took their final exams and moved on to two different courses which finished in sixty days, and then on to their last set of two courses. Rather than run all courses for all students on a 180 day basis, we trimesterized the year and extended class time. A student might be studying English and science his first trimester; social studies and French his second, and art studio and math his third. The advantages to taking two rather than five or six courses at once are that students have fewer things to attend to. They can concentrate on a topic not only in class, but also at home where, instead of having to open five or six books per night, they only open two and even though the hours of homework per night are no different for Renaissance Program (RenPro) kids than their counterparts in the Traditional Program (TradPro), Renpro kids report that it seems like less and that they mind
homework less. For teachers, the prime advantage of having only two classes a day is that they can get to know their students very well and have the time to individualize instruction to a much greater degree than they can when they are seeing upwards of 100. Full time Renaissance Program teachers this year had, on average, a daily student load of 26 but, across the year, saw a full complement of students. That is, the Renaissance structure does not create the need to hire more teachers to get the class size and student load reduced--and that is the advantage of the Renaissance Program for school boards and taxpayers.

Because the Renaissance Program worked as a "school within a school," we arranged the schedule so that the end of the second RenPro class falls at the end of traditional period 4. Consequently, RenPro kids flowed back into the traditional time scheme once their major courses were over. The high school runs on a 7 period day and during period 5 RenPro teachers had a team meeting--a critically important element in any effort to change a school: the change makers have to talk to each other on a regular basis. Students took an elective such as music or mechanical drawing or a study during period 5. Students in need of special services visited the special needs teachers during this period. (Incidentally, about half of the RenPro students with IEP's were able to function without special services probably due to the increased classroom attention.)
During period 7 students returned to one of their major academic teachers on alternate days. Masconomet runs on a six day cycle and so students returned to their Block I teacher on odd days and their Block II teacher on even days. This period was at first conceived as a study/extra help session but teachers found that either ineffective or an inefficient use of time and so used this time in a variety of ways—some for direct instruction, some for review, some for giving tests and quizzes, and so on. Because returning to a class at the end of the day was awkward, in subsequent years Block classes will be 118 minutes long and students will attend the configuration of activities Period 7 that they last year attended during Period 6.

Period 6 was divided into four separate activities: seminar, independent study, the foreign language enrichment program, and physical education. Seminar sessions were held for three weeks at a time with a three week break between them. We had six seminar sessions across the school year—two per twelve week trimester. Seminar was conceived as an opportunity for students and teachers to discuss informally current complex issues in an ungraded, non-credit small group setting. We had hoped to "take on" issues such as abortion, the loosening of the Soviet hold on Eastern Europe, apartheid, and so on. What we soon discovered was that high school freshman not only lacked sufficient information for discussion of these sorts of issues, but
also lacked the discussion skills: they didn't know how to listen to and respond to each other. Statements were addressed to the teacher and while one student was talking, others tuned out and so there was no conversational continuity and there were many side discussions either on or off topic. We also learned that some teachers were uncomfortable with not being "in charge" in a classroom situation and so exacerbated the problem by trying to dominate the conversation, that is, by taking on the role of discussion mediator more forcefully than they might have. Students complained on the one hand that the seminars were boring, and on the other that the teachers talked too much. Students were also unhappy with the fact that teachers choose topics for discussion. Consequently, in January we changed format. Rather than ask students to discuss a pre-chosen topic, we asked them to use seminar time to become expert on a complex topic of their own choosing. That expertise was to be exhibited in a demonstration performed by each student before his seminar group. And while this work was not graded, it was evaluated. Each demonstration was marked for clarity and thoroughness. In addition, each presenter submitted some written evidence of "research" which was also marked. Finally, and most importantly, the viewers of demonstrations were evaluated on the basis of courtesy, attentiveness, and thoughtfulness. Since seminar groups were small, and since some students
worked together on presentations, this was not the bookkeeping nightmare it may appear to be. By the end of the year, approximately 75% of our students offered some kind of demonstration, some of which were excellent. Of greater importance was the fact that by June virtually all of our kids had "bought into" the idea that improved listening and discussion skills were worth having and worth practicing. When you're fifteen years old, however, knowing something is worth practicing and actually practicing it are not always the same thing. The seminars were clearly the weakest part of the Renaissance Program. They did, nonetheless, force us all, students and teachers, to scrutinize the ways in which we talk with each other in school. Moreover, this year's RenPro kids seemed very interested in modeling better discussion skills for the ninth graders coming into the program in September of 1990.

It will be interesting to see if we can alter the school culture so that attentiveness, courtesy, thoughtfulness in student discussion is the rule and not the exception. It does seem plain to us, however, that an alteration of this sort will not occur in less than a number of years.

During the trimester when a student was enrolled in a foreign language, he took independent study for the six weeks seminar was not in session. Each trimester we had approximately one third of our students in independent study and since these were first divided into two equal groups and
then distributed among four teachers, each teacher had only three or four students per day for this segment of the program. Independent study gave kids a chance to learn about something of importance to them with the help of a teacher. Like seminar it was ungraded and non-credit and like seminar, the results were mixed. Some students did little or nothing. Others did very impressive work. For example, one girl researched the way money donated to various charitable organizations is spent and came away with a more skeptical view of such organizations. A group of students tested the purity of one of the local rivers. Another boy tried to build a model of an internal combustion engine that would be of use to the automotives teacher. Many of the projects were initially too ambitious and had to be scaled down; others—typically those having to do with sports or with rock music—proved more fun to think about than work on, and so little got done. Still, for those kids who tried out projects, the time was well spent and students reported that they preferred independent study to seminar largely because they felt more in control.

During the trimesters when a student was not enrolled in a foreign language, he took the foreign language enrichment program or FLEP. FLEP was a way for students to maintain skills during the long gaps of time when they would have no opportunity to practice the French, German, or Spanish they were learning in school. FLEP was held during
the three week periods each trimester when seminar was not in session. The justification for FLEP was that while a student might well have the chance to write, or perform mathematical calculations or engage in some scientific or historical thinking during his daily round of activities, in the sheltered suburban setting where our kids live, they would have virtually no chance to practice foreign language. The foreign language teachers thought it critical that they meet with these students to help them keep up.

Period 6 also "contained" physical education which met every other day for each student. So seminar, independent study, and FLEP each met every day for each teacher but only every other day for each student. In other words, half our kids came to seminar on day one; half went to gym. On day two, the groups exchanged activities.

Through a small grant Masconomet hired a team from the Harvard Graduate School of Education to assess the program. Is the Renaissance Program working? Clearly one year is not a sufficient time to determine if major change is effective. The team from Harvard tells us that we will need at least three years to know if the RenPro solves the problems it was meant to address. However, the preliminary results, the "early returns" are very promising. Students in both the Renaissance Program and the Traditional Program were given identical semester one and semester two exams during this first year. RenPro students took "semester one" exams after
six weeks; and "semester two" exams after twelve. TradPro students took the exams in January and June. On the basis of "semester one" tests, RenPro students did marginally better than their TradPro counterparts. This is encouraging for two reasons. First, RenPro students learned the material in the various disciplines at least as well as TradPro students in about 20% less time. This gave them time for seminars and independent study which, despite their weaknesses the first year, continue to have a good deal of potential as learning experiences. Second, most new programs show a marked decline in effectiveness during the formative stages. So far, the RenPro has not. (The Harvard team, on the basis of standardized test scores such as the ITBS has made adjustments for any differences in ability between the RenPro and TradPro students.) In addition to the test results, the evaluators have made a strong effort to measure differences in attitudes not only between students in both programs, but also between teachers and parents. All groups took surveys and representative members of all groups were interviewed. There was very little difference in attitude between teachers in the RenPro and teachers in the TradPro. Parents of RenPro students were slightly more enthusiastic about school than were parents of TradPro students as measured on the surveys. Perhaps a more meaningful measure of parental backing of the program is that parents of RenPro students have raised something over
$20,000 to help pay the costs that running two programs creates. By far the largest difference was in the students themselves. Kids in the Renaissance Program seem to like school a good deal better than their counterparts in the Traditional Program. Some of them report that they actually look forward to getting up and coming to class. Many of them say they like the increased intimacy with their teachers; most of them report they enjoy having only two subjects to contend with. These reports from kids are consistent not only with the results shown on the formal Harvard survey, but also with anecdotal reports we hear from parents. That RenPro kids like school better seems to us a most significant short term improvement and one likely to lead to important improved academic achievement later on.

The school has secured a continuation of the evaluation grant money and the program will be monitored again during the 1990/91 academic year. We will be in a much better position in another twelve months to make sound judgments about this program.

On the final work day this June, after the students have left, the RenPro teachers gathered to list the advantages of the program and to identify some of the problems that needed to be addressed for next year. Of the problems that were not merely local and mechanical perhaps the most disturbing is what may be a break down in student discipline. The increased closeness between students and
teachers and among students may have bred what some see as increased disrespect: RenPro kids seem to be a little cheeky. Whether this is true disrespect or simply an alteration in relational style or merely a phase we must pass through as we learn how to live together differently remains to be seen. Teachers cited frustration over covering material for the examinations as another problem. With the exception of the art teacher who had to cut projects from her curriculum, all teachers found coverage possible in less time; but it was also true that all teachers would have preferred to do less and do it better. Because of the reduced student load, the failures we saw were especially frustrating. In the traditional program it's easy to ascribe a student's failure to the student. In a RenPro structure, when you only have 26 kids, it's hard not to see a kid's failure as your own. On the political front, the RenPro is seen as a real threat to the rest of the school, the one that "ain't broke," and consequently there are always dozens of rumors flying around about what horrible things are happening "down there," i.e. within the program. And, of course, the seminars and independent study segments were also pointed to as areas that needed some attention.

Happily, the advantages noted by the teachers far outweigh the problems. These included the perception that relations between teachers and students were very good
generally, that classrooms were positive in atmosphere, places where kids felt comfortable taking risks, being "wrong." Teachers felt kids to be better motivated, more articulate, more responsible for their own learning, more confident, and, toward the end of the year, more respectful of each other. Teachers also found the long classes excellent for exploring various teaching strategies, ones that typically made the student the worker. The long classes also made in-depth academic work more possible. Teachers could connect in one day ideas that in the traditional program would take a week to present. Because of the reduced student load, teachers found they could get corrected work back very quickly, a practice always helpful in boosting achievement. Finally, teachers cited the team meeting as tremendously positive and something critical to whatever success the program enjoyed.

It is important to recognize that our motive in changing the schedule was to get improved learning. But it's become clear that changing the schedule also forces changes on teaching and so, on the school. After a year teaching in a Renaissance structure it is clear to me that the schedule, more than any other force, drives teaching style. The reason Ted Sizer and John Goodlad hear mostly teachers' voices when they walk the halls of Anytown High is because those teachers have 900 performances to complete by June. Because classes are so short, the seemingly most
efficient way to cover material is the lecture. And because kids and teachers have their thoughts interrupted by a number of disparate lectures and other activities between first period on Monday and first period on Tuesday, the most sensible thing to do with one's lectures is to make them as self-contained as possible. Lessons become like little pellets or bullets we fire out at our students—often blindly—and sometimes we hit someone.

Change that structure and you invite the sorts of variety in instruction that most teachers would like to provide but can't because, like students, they too are running from activity to activity all day long. Indeed, make the class long enough and the lecture, which is recognized as one of the least effective teaching strategies, soon takes its rightful place near the bottom of the list of strategies chosen: no one can lecture for two hours a day five days a week. Those lecture replacing strategies will almost naturally make the "student the worker." There's not much else to do in a classroom besides listen to the teacher or do the work yourself. And when the student is the worker, the teacher naturally becomes "coach," resource person, gadfly. And when that happens it's a short step from teacher as adversary whose job is to catch kids out in what they don't know to teacher as advocate whose job is to assist kids in learning critical skills and knowledge. And once that happens and happens on
a large scale, perhaps this country can reverse its alarming educational and consequent economic direction.