Making a Big School Smaller: The School-Within-a-School Arrangement for Middle Level Schools.

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Although there is controversy as to whether middle-level education should be more comparable to high school or to elementary school, this paper argues that the school within a school (SWAS) concept effectively makes large schools seem small so that they have more in common with a typical K-5 school than with a grade-10-through-12 high school. The advantages of such an arrangement permit medium-sized and large middle schools to divide into smaller subunits called "houses." The house plan tends to personalize teaching and learning. Students may leave the house for specialized subjects such as music, foreign language, science, health, and physics education. Evidence suggests that SWAS and minischool programs have been shown to produce significant achievement growth; to improve attendance and behavior; and to generate student, staff, and parent satisfaction. The report concludes by arguing that middle school policymakers should give house plans and small schools within big schools a chance. Appended are five pages of references. (JAM)
Making a Big School Smaller: The School-Within-a-School Arrangement for Middle Level Schools.

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MAKING A BIG SCHOOL SMALLER:
THE SCHOOL-WITHIN-A-SCHOOL ARRANGEMENT FOR MIDDLE LEVEL SCHOOLS

The issue of the proper size of schools has been debated throughout this century. Typically, practitioners and researchers have agreed that the American high school, with the established purpose of meeting the subject matter needs of young adults, should be of sufficient size to offer specialized courses (e.g., advanced algebra, foreign language, physics, chemistry) in an efficient and economic manner (Conant, 1959). Conversely, the elementary school, established to bring basic skills to prepubescent youngsters, has operated under the premise that the depth of required coursework was such that the generalist, or the self-contained teacher, could adequately provide instruction in a variety of fields, thus eliminating any great concern over minimum size. For some, the one room elementary schoolhouse is too small, but for others it is more than adequate—(Van Til, 1977). For middle level schools, the problem of optimum size has not been adequately researched, and within the research one finds conflicting opinions. Further, the opinions appear to be based upon the authors' notion about the purposes of middle level schooling (Garcia, 1961; Commission on Secondary Schools, 1958; Stemnock, 1974).

At the heart of the middle school size controversy is the question of whether middle level education should be more comparable to high school or to elementary school. Those who favor the high school concept argue for subject matter specialization, departmentalization, full vocational offerings and extracurricular sports. Obviously, a school must be of...
reasonable size (500+) to offer these amenities. On the other hand, leaders of the middle school movement of the late 1960's, 1970's and 1980's have advocated transitional schools which are student-oriented rather than subject matter oriented, which emphasize interdisciplinary teaching teams and multi-period "core" block teaching in lieu of specialization and departmentalization, and which offer intramural rather than interscholastic sports (Eichorn, 1966; Alexander, 1968; Alexander and George, 1981). Although middle school advocates firmly recognize the differences between elementary students and so-called "transescents" (Eichorn, 1966), the school; they envision, although distinct from elementary schools; have more in common with a typical K-5 school than a grade ten through twelve high school. Consequently, middle school proponents will typically advocate that communities build small schools, or at least schools which "act" small (Alexander and George, 1981).

The idea of making large schools seem small is the cornerstone of the school-within-a-school (SWAS) concept. In sum, schools which operate under a SWAS arrangement will divide the student body in a number of semi-autonomous units (or houses, or mini-schools), each of which is staffed by a number of teachers and support personnel, offers a academic "core" of basic subjects, and has responsibility for the academic and social development of its students. The basic concept is that smallness fosters closer relationships between students and staff, more opportunities to focus upon psychological as well as academic development, and more opportunities for student participation in activities (Ramsey, et. al. 1967).

Before analyzing the SWAS in more detail, it will be helpful to briefly review the literature on three developments which have impacted
the acceptance of SWAS as an alternative middle level organizational pattern. They are (1) the historical development of junior high/middle schools, (2) the growth of alternative schools, and (3) the issue of optimum size of schools.

DEVELOPMENT OF JUNIOR HIGH/MIDDLE SCHOOLS

Unlike the high school or elementary school, the junior high, middle, or transitional school historically has operated without a firm philosophy, vision or direction (Tye, 1985). This is not particularly surprising given the wide range and sometimes confusing nature of the expressed goals for middle level schools. For instance, between 1892-1918, the formative period of junior high education, commission recommendations ranged from introducing a few high school subjects in grades seven and eight to beginning a specialization of subject matter at an earlier age (Alexander, 1968). In the fifty years following the establishment of junior high schools, purpose statements were added which reflected a need to provide a transition from the self-contained elementary classroom to the highly specialized high school, to offer a number of exploratory experiences which would allow a sampling of subject matters and skills prior to having students make curricular commitments in high school, and to introduce guidance services to aid in academic, vocational and personal matters (Alexander, 1968). As these goal statements were developed many schools adopted policies which supported them. At first, the practices seemed transitional and appropriate, but, as the years passed, many schools de-emphasized self-containment in favor of academic specialization (Eichorn, 1966). In addition, when the Sputnik scare of the late 1950's caused educational reformers to question the amount of learning taking place in American schools, many junior high
school planners were forced to drop humanistic practices such as multi-period, multi-subject, one teacher "core" blocks in favor of a daily dose of six or seven "subjects" taught by six or seven "fully trained" teachers in neat, forty-five to fifty minute divisions (Alexander and George, 1981).

Although the transitional nature of the middle level of schooling has never been denied, in practice the evolution of the typical junior high school has been in the direction of a mini-high school (Alexander and George, 1983). Like high schools, "good" junior high schools offered such attractions as a complete departmentalized curricular organization staffed by subject matter specialists, a vocational program with fully funded home economics and industrial arts labs, and extracurricular competitive programs like sports, clubs and cheerleading. One problem with this arrangement was that a youngster's "transition" from elementary to secondary school often took place in total on the first day that he or she entered junior high school. With a seven period day with seven subjects and seven teachers, the twelve year old entering junior high was often shocked and bewildered. His or her home base, the self-contained classroom of sixth grade, was removed in a departmentalized junior high school. In a world of sink or swim, the unwary seventh grader often sunk (Alexander and George, 1981).

To combat what was perceived to be a harsh climate of curricular and social rigidity, middle school proponents suggested a number of organizational changes. First, interdisciplinary teams were created to match groups of students with teachers who would share instructional duties. Second, advisor/advisee programs were established to treat the social and emotional development of students as a separate, non-academic
subject, and to create a bond between each student and an adult advisor. Parent conferences were often scheduled through advisory teachers. Third, competitive interscholastic sports were replaced by non-competitive, no-cut, intramural sports. Fourth, the number of exploratory courses were expanded but the depth and scope of many were reduced. The net effect was that more students were allowed to sample a greater variety of course offerings. Fifth, "modular" schedules enabled teams of teachers to plan activities which exceeded the traditional fifty minute period, allowing greater lesson depth. And sixth, teaching strategies were expanded to include research on the characteristics of young adolescent learners. Cooperative learning, interdisciplinary units, hands-on, lab oriented lessons, and field experiences in the community are a few examples of activities which research indicated were appropriate for transescents (Merenbloom, 1986; Fenwick, 1986; Eccles, 1987).

Concurrent with the development of a body of knowledge relevant to middle level education was the development of a literature on effective schools. The work of Edmonds (1979), Rutter (1979) and Brookover (1979) lent credence to the notion that student/teacher relationships needed to be based more than on strictly curriculum and academics. Factors of schooling which seemed to correlate with good schools (e.g. high levels of reward and praise, consensus among staff members about curricular expectations, school norms and discipline, ample opportunities for students to participate in the operation of their school---Rutter, 1979) also seemed to be aligned with the middle school philosophy. Later, the work of Goodlad and associates in the Study of Schooling confirmed the worst fears of critics of traditional junior high schools. According to Kenneth Tye (1985):
At the classroom level, we found little if any opportunity for teacher-pupil interaction which went beyond the concerns of the subject matter of the particular subject or class. Obviously, there is a need for some intermediate structure which can allow for students to interact with a sympathetic adult about their concerns, future plans and personal concerns.

In addition, Goodlad (1983) found ability grouping practices, widespread among traditional junior highs but less so in progressive middle schools, antithetical to the concept of educational equality as well as academically inefficient. According to Jeannie Oakes (1985), ability grouping has been found to be academically detrimental for low track students and has no discernable positive effect for high achievers. Again, middle school philosophy appeared to corroborate this research which suggests a return to heterogenous grouping practices (Alexander and George, 1981).

Middle schools, uncommon in 1960, have grown steadily in number since then. By 1977, over 4000 schools nationwide considered themselves middle schools (Alexander and George, 1981). In terms of configuration, in 1960 eighty percent of the seventh through ninth graders were enrolled in a junior high school. By 1986 that figure had dropped to twenty-nine percent (Alexander, 1968; Merenbloom, 1986). Although admittedly many so-called middle schools are that in name only, and, similarly, many so-called junior high schools behave in ways which are compatible with a middle school philosophy (Tye, 1985), the fact is that the middle school movement has been responsible for a shift away from middle level schools as reflections of high schools. And with that shift has come a renewed need to consider the issue of optimum school size. Simply put, without departments, high and low tracks, full-blown vocational programs and competitive sports, there appears to be little need for a large student body.
ALTERNATIVE SCHOOLS

Concurrent with the middle school and the effective schools movement has been a proliferation in the number and types of alternative schools. For instance, in 1982 the Project on Alternatives in Education (PAE) identified over 2,500 different alternative schools in the United States and Canada (Raywid, 1982). Alternatives can vary from separate schools established to meet an educational need or address a problem (e.g. disruptive students), to open schools, magnet schools, schools-within-schools, mini-schools, inter-district choice plans, or schools-without-walls. SNAS and mini-school programs comprise about twenty percent of the total number of alternatives (Raywid, 1985).

Alternative schools have generally been successful. They have been shown to produce significant growth in achievement (cognitive, social and affective), improve attendance and behavior, and generate unusual rates of satisfaction among students, staff and parents. Their success has been attributed to the benefits of choice, climate, size, degree of staff autonomy and a culture which emphasizes experimentation (Raywid, 1984; Jennings and Nathan, 1977; Barr, 1981; Fantini, 1973). Like middle schools, they tend to "personalize" the educational environment.

Alternative schools typically emphasize independent study and experimental learning (Raywid, 1984).

Not all alternative school experiments, however, have been successful. For instance, federally funded projects in Alum Rock and Berkeley, California, Eugene, Oregon and Minneapolis, Minnesota met with varying rates of success (A Study of Alternatives in American Education, 1981). In Alum Rock, probably the most thoroughly studied alternative education program ever, a lack of true diversity in the offerings and a...
lack of lead time to fully apprise parents of choices available to them led to the downfall of the program. Consistently, small school size and the element of choice for parents, staff and students appear crucial in predicting final effectiveness of an alternative education experiment (Raywid, 1984).

SWAS alternatives, at least in the PAE study, were characterized as "an administrative unit created within a larger school . . . separate and distinct by having its own teachers, its own courses and space and distinctive environment (Raywid, 1985)." They have tended to be small in relation to the parent school, offering varying amounts of separation. They have typically been established to ameliorate the perception of the school as a large, inhumane institution and to provide a special educational environment for students of special needs (Raywid, 1985). Much of the success of SWAS alternatives has been tied to the ability of the staff to achieve separateness from the larger school, allowing the establishment of a unique environment and consensus vision (Gregory and Smith, 1982). Again, the size of SWAS options has been consistently small.

Most SWAS alternatives have been high school experiments. Traditionally in middle level schools, many of the "house" or "mini-school" plans have not been considered alternatives because they typically rejected personalization in favor of uniformity. On the basis of equity this makes sense, but, with the placement of responsibility for the academic program on interdisciplinary teams, many current middle schools do in fact seek diversity among their houses and thus are more closely aligned with SWAS programs (Alexander and George, 1981; Merenbloom, 1986). I strongly suspect that middle school house programs
are underrepresented in SWAS (or alternative education) program counts. They are certainly examples of SWAS schools, although their lack of separateness from the main school may have the deleterious (and somewhat ironic) effect of minimizing their effectiveness.

OPTIMUM SIZE

Like studies of alternative schools, much of the research on the issue of optimum school size has also skipped the middle level. Most studies, predictably, have considered size at the high school, particularly so because of the administrative decisions which must be made relative to consolidation of small, rural districts, construction of new buildings, and inclusions of specialty courses in the curriculum. Conant's (1959) recommendations, of course, created a considerable amount of interest on this topic. Sadly, his work is often misinterpreted or misapplied. He never advocated school sizes in the thousands; instead he simply argued that graduating classes of less than 100 would be inefficient and ineffective because the small number of students would make it impossible to offer a sufficiently rich curriculum. (Conant, 1959, 1967; Goodlad, 1983).

Even so, many take issue with the 100 student floor. For instance, studies of small high schools have consistently discovered the advantages of smaller class size, familiarity among staff and students, and athletic and activity participation (Barker and Gump, 1964; O'Connell and Hagans, 1985; Goodlad, 1983; Wilkinson, 1977). Also, studies of typically small parochial schools have come to the same conclusions (Ayrault and Crosetto, 1982; Small Schools, Quality Schools, 1979). Proponents of small, rural schools have also suggested that curricular variety can be provided (and thus the consolidation efforts can be questioned) through measures such as
establishing regional academic centers (Heldman, 1970). An Australian study indicates that the "Conant" problem occurs only when combined totals of the last two years of a secondary school drop below eighty students (Ainley et al., 1982). English secondary schools are generally much smaller than American high schools and allow a considerable amount of autonomy for schools to plan their own program (Griffiths, 1972). On a strictly supply and demand basis, advocates of a voucher system of school funding have pointed out the economic benefits of many small schools competing for student business (Chambers, 1981).

Small schools appear to have additional advantages with respect to lower crime rates and vandalism (Kalus, 1978). Safety, according to Gottfredson (1985), is also related to size although poor communication links between the office and the students, and not solely school size, may be to blame. In the mid to late 1960's many districts with very large high schools made efforts to reduce size on the theory that the climate of the school would improve, and vandalism, crime rates and absenteeism would decrease (Levine, 1968; Gold, 1975). The idea is that peace, intimacy and peer interaction are fostered by smallness. Along this line, alternative urban schools, which are small, may serve as a conduit for keeping at-risk students in schools and out of the juvenile court system (Raywid, n.d.; Graham, 1980).

In addition to the high school studies, some work has been completed on the effect of school size in elementary schools. In one study, students in small schools perceived a closer, warmer relationship with their teachers, fellow students and other adults and a stronger connection with the school (Moracco, 1978). Similarly, students transferring into Australian secondary schools from small elementary schools construed the
transition in a more positive light (and adapted more easily) than did their large school counterparts (Cotterell, 1979). And Goodlad (1983) puts the upper limit of elementary schools at 300 students and roughly twelve teachers. He challenges anyone to show why an elementary school needs to be any larger. British infant schools, he points out, are rarely filled with more than 250 pupils.

The relationship between school size and academic achievement, at least achievement as measured by standardized test scores, is not clear. Some studies have indicated a positive relationship between achievement and small size although the cost per pupil in small schools was slightly higher (Bidwell, 1980; Palmer, 1978). Also, longitudinal studies of graduates of small and large high schools regarding success in college tend to reject the hypothesis that larger high schools prepare students better for college studies (Hoyt, 1959; Baird, 1969; Ansingh, 1987). Research certainly exists which suggests the need for relatively large and comprehensive high schools, but many of the recommendations for large size are based not upon achievement data, whether standardized or localized, but upon secondary factors such as teacher experience, percentage of teachers with masters degrees, average staff turnover rate and number of courses offered (Webb and Metha, 1983; Hess, 1978).

Small high schools have consistently been shown to produce better results than large schools in the areas of richness of the experience as a students and attitude toward school (Ainley, et. al., 1982). The work of Barker and Gump (1964) in studying the attitudes of students in small and large Kansas high schools is the classic piece of research on this topic. In sum, the Kansas study found that (1) the availability of extra-curricular activities was not directly proportional to size; (2) The
small school student was much more likely to be involved in a wide range of activities/athletics than his or her large school counterpart; (3) small school students enjoyed advantages in terms of developing competence, being challenged, engaging in important actions, being involved in group activities, being valued by others (students and staff), and gaining moral and cultural values; and (4) small school students, especially those from lower economic and academic strata, experienced more pressure to participate in school activities (Barker and Gump, 1964). Later studies, in the USA and abroad, have replicated these findings (Baird, 1969; Wicker, 1969; Grabe, 1981, Willems, 1967; Ross, 1972; Ainley, et. al, 1982). Lindsey (1982, 1984) corroborated the findings of the Kansas study and added research which indicates that the benefits of smallness are independent of rural or urban location, and that graduates of small high schools tend to participate more often in volunteer social activities as young adults than their large school counterparts. In addition, studies of attitudes of parents (School Size, 1982) and teachers (Mehaffie, 1983) confirm satisfaction with small high schools. Needless to say, many have used this body of knowledge to call for a return to small high schools (Sturges, 1974; Kozberg and Winegar, 1981; Gold, 1975).

Because of the lack of research on school size relative to middle level schools, the analyst is forced to extrapolate from high school and elementary data to predict with some sense of accuracy what should be the optimum middle school size. Obviously, the subject matter specialization needed in high school for basic skill subjects is not as crucial in middle level. If one accepts the notion that variety, and not depth, in exploratory elective courses is to be sought, then money need not be allocated for expensive pre-vocational industrial arts or home economics.
labs and thus no economic need exists to fill the labs with full classes during every period of the instructional day. If one accepts the middle school philosophy that teachers should not teach in isolation, that students should be known and cared for by at least one adult in the school, and that teachers should teach students and not just subject matter, then schools need not be large. If one accepts the research findings that ability grouping is inefficient for all students and just plain inequitable for low achievers, then schools need not be large. And if one accepts the realization that middle school activities and athletics should be exploratory and experimental, not competitive and selective, then schools need not be large.

Goodlad (1983) asserts that a junior high school should not exceed 600 students. Alexander and George (1981), though stopping short of advocating any specific optimum size, are strongly supportive of the house plan, which, like schools-within-schools, minimizes the deleterious effects of large size by breaking the school into sub-units. Goodlad, too, is supportive of schools-within-schools. Kenneth Tye (1985), concurs, although he refers to the sub-units as "learning communities". Joan Lipsitz (1984) argues that relatively small houses, or school sub-units, provide the individualized attention that youngsters need, and reduce the "(a)ntisocial behavior that results from randomness and brevity of student groupings in most secondary schools."

If small schools and SWAS groupings in large schools are so uniformly praised for middle level, why, then, are large, departmentalized junior high or middle schools still so common in our school systems? It is beyond the scope of this paper to delve into issues concerning the existence of institutional barriers in public schools, inbred resistance
to change, bureaucratic awkwardness, uninspiring leadership, or local and state political factors which inhibit innovation and school improvement. I will, however, briefly review documented experiments with SWAS organizations before concluding with an appeal for large middle schools to adopt the SWAS or house plan.

SCHOOL-WITHIN-A-SCHOOL

School-Within-a-School arrangements are not new. Since 1924 the Evanston Township High School of Illinois has operated a SWAS model. At Evanston in 1969, 4,800 students were divided into four semi-independent schools of 1200 students each (Michael, 1969). The literature of the 1940's and 1950's refers to reports of "little schools" or "unit plans" (Raywid, 1985). Unfortunately, almost all of the data on SWAS plans are descriptive and not evaluative or scientific. Many articles have surfaced as SWAS plans were in the planning or start-up stages. These reports are helpful because they illustrate various models and provide a theoretical framework, but they lack an evaluative component (Ramsey and Henson, 1967; School Within A School, 1959; Carver, 1974; Smith, 1964; Barrett, 1964; Barry, 1967; Glatthorn, 1975). Studies which evaluated programs were often somewhat critical. Problems were identified with staffing assignments and personnel match (School-Within-a-School, 1970), lack of communication between houses and the main administration area, inconsistency in discipline among housemasters, low pay scale for housemasters (Yaglou, 1968), and a failure to generate more positive attitudes toward school as a result of the SWAS plan (Niehaus, 1971). However, these studies reported generally positive results in terms of student/teacher contact and personalization of the schooling experience. On a more upbeat note, Raywid (1985) reports that SWAS arrangements result
in generally positive marks so long schools "obtain sufficient
separateness and autonomy to permit staff members to generate a
distinctive environment and to carry out their own vision of schooling". Also, case studies of middle school house plans by both Lipsitz (1984) and Alexander and George (1981) lend much credence to the notion that semi-autonomous sub-units can be successfully constructed in relatively large middle level schools.

CONCLUSION

Small schools appear to work better for adolescents. In high school the curriculum must be somewhat varied and the depth of courses sufficiently broad to provide a basic education. High schools, therefore, must be somewhat large, although Conant's figure of 100 per class may be excessive. Middle level schools, however, need not be large. Small middle schools of 200 or so can function very well and existing large schools, which obviously cannot be reduced in physical size and must carry sufficient numbers of students to meet minimum economic requirements, can be broken into smaller sub-units to provide a feeling of smallness within bigness. Indeed, the large physical plant of an operating junior high or middle school can provide several educational advantages over a very small school. For instance, the house plan can be used to arrange instruction for students in a basic, core curriculum (e.g. writing, reading, math, social studies) on a personalized, interdisciplinary basis and allow students to leave the house for specialized subjects such as exploratory electives, music, foreign language, science, health and physical education. Large gyms, well-stocked industrial arts, home economics and science labs, and specialists in art, foreign language and music all can be a part of the large middle level school divided by houses.
So, in a classic case of an opportunity to have-your-cake-and-eat-it-to, why don't large middle level schools give SWAS a try? The institutional forces may be difficult (1), the staff may be recalcitrant, and the community may be wary, but when presented with all of the reasons why bigness should be turned into smallness, why would they not support the experiment? Why, indeed?
(1) In addition to the list suggested above, I believe that in many communities the school athletic program creates a difficult barrier to adopting practices which emphasize smallness. This problem is acute in junior high schools and often insurmountable in high schools. High school athletics are an institutionalized cultural phenomenon in the United States and as close to a sacred cow as is anything in education. I believe observers advocating change in education have seriously underestimated the power of extracurricular programs in general and high school extracurricular programs in particular as barriers to meaningful change. High schools can have house plans, but a conflict is created when students are loyal to the house in academics and the total school in athletics. This tends to diffuse house affiliation and reduce personalization between teacher and student, especially when the system allows youngsters to be "cut" from a team or activity squad.

Again, for middle level schools, a ready solution is at hand. First and probably best, most middle school advocates opt for intramural, no-cut, participation-oriented athletic programs (Alexander and George, 1981). This type of program, however, is often controversial, especially when it replaces former "feeder" programs which were successful (in a competitive, won-loss sense). These changes tend to generate large amounts of parent criticism which often spill over from an athletic disagreement to a question of the propriety of the entire middle school program (Franklin Pierce and Bellevue School Districts, Washington State, 1983-1986).

To avoid political ill will, many districts stay with interscholastic athletics in a modified sense. First, for large number sports such as football, wrestling and track, few problems exist with excessive numbers so the need to trim the squad does not exist. Second, "cutting" students is prohibited in low number sports such as volleyball, baseball and basketball. This allows more participation but often taxes the physical limitations of facilities and the psychological limitations of coaches. In such cases, I advocate forming "house" teams separate from the school which compete as a separate team in the league (Kleinert, 1969). Gym space may have to be rotated or practices scheduled every other day, but the advantages of mass participation outweigh the disadvantages of competitive selection. The net effect of all this is that participation is up (and slow-developing future athletes are spared being lopped from the team and thus keep up interest until the time when they mature), house affiliation is encouraged, and parent criticism is minimized. Goodlad (1983) says that he is unwilling to put the welfare of the football team ahead of the welfare of the educational program. I, agree, but in practical, political terms, one must find ways to implement change within the context of the local conditions. SWAS with interscholastic sports is better than no SWAS at all.
REFERENCES


Commission on Secondary Schools and Commission on Research and Service.


