



# Advocacy for Gifted and Talented in New York

---

## **Grouping Options: Benefits and Disadvantages**

By: Margaret DeLacy

### Contents:

#### 1. No Grouping (inclusion)

- 1a. No services
- 1b. Individualized services
- 1c. Acceleration/early entry

#### 2. Grouping within the classroom/Grouping for part of the day:

- 2a. Pull-out "gifted" programs
- 2b. Pull-out classes in the home school
- 2c. Pull-out programs for advanced classes
- 2d. "Ungraded" schools or "continuous progress" programs
- 2e. Within-class "Cluster Grouping"

#### 3. Full-time placements for gifted students

- 3a. Full-time separate classrooms
- 3b. Separate school for gifted students

#### 4. Hybrid programs

#### 5. References

Books

Articles

#### 1. No Grouping (inclusion)

- 1a. No services

How it looks: Gifted students are treated like any other student politically, and with non-gifted parents. No "special" treatment. No transportation or testing needed.

Advantages: No costs. Easy to administer. May seem to be most acceptable politically, and for parents of children who are not gifted. No "special" treatment. No transportation or testing required.

Disadvantages: Research has shown that gifted students achieve lower academic scores in this model than in any other. Social issues include lack of peers, isolation, poor socialization. Some studies suggest that gifted students are at higher risk than normal of severe clinical depression, and that inadequate instruction/placement increases the risk. (Delisle, 1986, Messier and Ward 1998, Gross 1993) Some studies suggest a greatly increased risk of dropping out of school for gifted students. (Reid and Mcguire, 1995) Studies also suggest damage to self-esteem of non-gifted students in same classroom.

#### 1b. Individualized service.

How it looks: Gifted students are not grouped together, but each student has an individualized instructional plan.

Advantages: No transportation needed. Students go to neighborhood school. Program is nearly "invisible" to other students/parents, avoids "labeling" student. May appear to be inexpensive, but many expenses are hidden.

Disadvantages: Very burdensome to classroom teachers. Children may be assigned to unqualified teachers (i.e. teachers not certified to teach at an advanced grade level). Cannot meet needs of profoundly gifted students. Time required to individualize program diverts resources from other students. Gifted children may be isolated, suffer depression, lack social skills. All students suffer lower achievement scores than in other programs.

Discussion: Classroom studies have found that children in these programs rarely receive an appropriate or differentiated curriculum. Most Portland schools believe they are following this model, but State investigation found most students say they are not receiving services in at least one class. Current cost of Portland program is one million dollars in direct costs. District has been found out of compliance with state TAG mandate, endangering entire district budget.

#### 1c. Acceleration/early entry

How it looks: Students are tested and are admitted to kindergarten/first grade before attaining required age. They are frequently "skipped" or placed in higher level classrooms

Advantages: Inexpensive. Cost limited to testing, some transportation of students from elementary to secondary or secondary to high schools. Accelerated students show very significant academic gains over matched non-accelerants. Accelerated students appear to be more successfully socially, more involved in school activities, and more valued by teachers than matched non-accelerants. "Buys" extra time for student after completing diploma for advanced study, additional subjects. A Portland study of its early entry program found that the scores of students who entered early after testing exceeded the scores of matched students who were not advanced by nearly one standard deviation (Moilanen, 1987). This finding is supported by studies in other school districts.

Disadvantages: Addresses level of learning but not rate. Accelerated students may quickly reach top of class and then report boredom or frustration at slow pace. Important parts of the curriculum may be skipped. Students often need tutoring, individualized assistance to cover the missed curriculum. Students may lack necessary maturity, attention span, physical competence to achieve (for example, poor handwriting). Curriculum may be inappropriate for age of student (for example, sexual material in literature classes). May not address social isolation, different learning styles of very gifted students. Skipping a student who remains within the school may cause friction with former classmates or student may miss former friends. Highly gifted students may be forced to accelerate by many years to achieve appropriate level of instruction and become socially isolated. Students may be forced to

travel to another school to find needed level. Students gifted only in one area may have to split time between distant schools to find right level in several classes. Subject acceleration within a school may pose scheduling or space problems. If acceleration is postponed, student may already be locked in maladaptive behaviors such as underachievement.

Discussion: Acceleration is the most studied of all gifted programs--studies go back more than half a century. The evidence in favor of acceleration is absolutely overwhelming. A new study of the individuals identified by Terman as gifted between 1922 and 1934 found that those who were accelerated were more likely to have completed college, were less likely to have been divorced, and reported more satisfaction with their lives in middle age than those who were not accelerated. (Cronbach, 1996). The author reported that he was surprised to find that acceleration still affected the lives of these individuals a half century after they left school. Gallagher (1996) reports that though there have been reports of individuals who suffered from acceleration, he is not aware of any study that has found negative results when accelerated students were studied as a group. This was also our conclusion, and DTAC recommends acceleration as an integral part of every gifted program. It is also encouraged by the PPS district policy. Acceleration may be inappropriate for the marginally gifted student (who cannot compensate for as much as a full grade level), or a student with problems such as learning disability, underachievement, emotional/social problems, or immaturity. It is inadequate for the highly gifted student who would have to skip many grades, and who also typically needs a much faster rate of instruction. Acceleration can be used within any other program/grouping strategy. The state mandate requires that students be instructed at an appropriate level. It does NOT require that students remain within their original classrooms.

## 2. Grouping within the classroom/grouping for part of the day:

How it looks: Gifted students are placed together within a classroom that also contains other children. Gifted students may be deliberately assigned to a single classroom within a grade level. Students may be regrouped during the school day. Often called "cluster grouping" or "flexible grouping."

Advantages: Inexpensive and flexible. Students can attend a neighborhood school. No transportation costs. A group of students is easier to plan for and teach than isolated individuals. Program is relatively "invisible" to outsiders. Students who are gifted in only one or two areas can be accommodated within classroom by regrouping. Teachers with more interest in teaching gifted children may be assigned to those classrooms. Students are slightly less socially isolated than they are when they are scattered throughout the classrooms. Other above-average students in the classroom may be added to the gifted group. Students in the group may be more motivated.

Disadvantages: Students receive less direct instruction than students in a separate classroom for gifted students. In some small schools, there may not be enough gifted students at any one grade level or in any one subject to form a group. Program is unlikely to meet the needs of highly or exceptionally gifted students. Teacher must develop at least two separate curricula. In practice, curriculum may not be differentiated. Studies have found that ability grouping alone without an accelerated curriculum provides small academic gains, ability grouping with an enriched curriculum provides modest academic gains, and ability grouping with an accelerated curriculum provides substantial and important gains.

Discussion: The government-funded evaluation of Student Learning Outcomes (Delcourt, 1994) found that gifted students in special schools, separate classes, and pull-out programs significantly outperformed students not in programs and students in within-class programs. In another government-funded study, (1991) Rogers recommended that "cluster grouping of a small number of students... within a ... classroom can be considered when schools cannot support a full-time gifted program," provided that the cluster teacher was trained, given adequate preparation time, and was

willing to give classroom time to the direct provision of learning experiences for the cluster group. It is important in partial grouping to ensure that students are with intellectual peers for a substantial portion of the day. A small cluster group of gifted students strong in different fields may not contain any intellectual peers, and is opposed by the District TAG advisory committee (DTAC).

A meta-analysis of within-class grouping found that grouping students within heterogeneous classrooms increased student achievement scores. It found that small group size, assessment, teacher training and materials used were important factors. It found that overall achievement scores improved further when the groups were formed with students of like ability, but low achieving students lost ground and gifted students did not benefit. (Lou, Abrami et. al, 1996) This is presumably because the students were only grouped within heterogeneous classes and teachers continued to teach to the middle of the class. An earlier study by Kulik and Kulik(1991) found all three achievement groups benefiting from within-class grouping.

A review by Guiterrez and Slavin (1992) found significant benefits to grouping across classes (non-graded schools) as long as the grouping was used to increase time for direct instruction from the teacher. Little benefit was found when grouping was used for programs where students progressed individually, and spent most of their time doing "seatwork" or "packets."

## 2a. Pull-out "gifted" programs

How it looks: Students leave their classes for part or all of a school day to attend specially designed programs.

Advantages: Flexible. Students are more likely to find peers. Program is more likely to have trained teachers/facilitators. Programs can be specifically designed to meet the faster rate of gifted students. Curriculum may offer more choices. Program can accommodate large number of children. A study of nine pull-out programs carried out in 1990 found significantly positive outcomes in achievement, critical thinking and creativity compared with outcomes of gifted students in regular classes (Vaughan, reported in Rogers, 1991) Students are not separated from friends, neighborhood. Program is very visible. Disadvantages: a separate program is very expensive. Requires "double dipping:" students must have both a regular classroom teacher and a pull-out teacher, and may need to be bused to another site. Busing entails loss of instructional time as well as money for students, and students may be lost in transit. Communication between the pull-out program and the home school parents and teachers is often poor. Pull-out curricula are usually not integrated into the home school instruction, resulting in fragmentation. Pull-out curricula are often superficial, unrelated to the student's specific instructional needs. The excitement of pull-out classes sometimes causes students to resent home school classwork. Home school teachers may resent program and the disruption caused by sending students out. Parents of non-gifted children view program as a "treat" and resent its restriction to gifted children. Pull out programs do not offer any programs that could not be provided by a separate school at significantly lower cost.

Discussion: Until about seven years ago, the TAG program in Portland was a pull-out program, and most parents were not satisfied with it. Pull out programs are less competitive and stressful than separate school/class programs. Students in pull out programs usually spend most of their time with non-gifted as well as gifted students in home school classrooms. Some authors see this as an advantage, but the balance of the evidence is that ability grouping is beneficial for both gifted and non-gifted students; when gifted students are removed from a mixed classroom, the scores and self-esteem of the remaining students tend to rise, not fall. Pull out programs are most likely to be successful for moderately rather than highly gifted students, and/or for students gifted in one subject but not in others, who would struggle in a separate gifted school. They are also more likely to succeed when their instruction is closely tied to the established school curricula, and when they

emphasize excellent communication between the program and the home school. Pull out programs are not prohibited by the state TAG mandate, but they do not affect the legal obligation of the home school to provide appropriately paced and accelerated curriculum throughout the rest of the school day/week.

## 2b. Pull-out classes in the home school.

How it looks: Students leave their homerooms daily for advanced classes. These completely replace the classroom curricula in these subjects.

Advantages: Very inexpensive and very cost-effective. As long as there are enough eligible students to fill the class, the only cost is the initial testing needed to assign students to the class. Success in one class may determine following year's class placement. Flexible. Both level and rate may be modified. Highly gifted students may be accelerated into an advanced class designed for older students. Communication problems are minimized because advanced class teacher is responsible for monitoring progress, assessing and grading students. Studies have found very significant gains in achievement by students in such classes, when compared to equally gifted students in regular classes. High parent and student satisfaction.

Disadvantages: May not meet the needs of all students. Some schools may not have enough students to fill a class. There may be scheduling problems. If classes are opened to students who are not carefully selected, the weaker students may slow down the class; if they are limited to selected students, there are complaints about students who have been excluded.

Discussion: A variant of this program is to have a tutor come in to work with a specific group of students on an advanced curriculum. The main barrier to this is the cost of providing daily tutorials. Research on the social/emotional outcomes for students assigned to these classes is inconclusive. Advanced classes are a staple in Portland High Schools. A few advanced classes are available in Middle Schools. Most middle and elementary schools either conceal the existence of advanced classes or do not offer them at all, because the school administration believes that their existence damages the self esteem of students who are not assigned to them. We could find no evidence to justify this belief; studies consistently show small gains in achievement and self-esteem in non-gifted students after their gifted classmates are pulled out. Gifted students in minority groups who are assigned to advanced classes may experience even greater benefits than other gifted students. (Page and Keith, 1996)

## 2c. "Pull-out" programs for accelerated/advanced classes.

How it looks: Students are taken out of their home school, usually at the beginning or end of a school day, to attend advanced classes in another school nearby. The nearby school may be designed for older students (e.g. a middle school student is sent to a high school) or may be designated as a regional center for gifted students at a given grade level.

Advantages: Flexibility. Increases instructional choices for students. May be only way to provide appropriate level of instruction for students highly gifted in one or two subjects. Relatively inexpensive: no additional cost in staff. Makes good use of existing resources to serve more students.

Disadvantages: transportation costs/issues. May disrupt school day. Students may lose instructional time because of transit time. Transportation provided by school district may be too expensive; requiring families to provide transportation deprives many students of opportunity to participate (and may be a greater problem for the poorest students, which is discriminatory). "Labels" students to classmates in home school. Communication may be a problem. Some parents do not want their

students placed in schools for older students, fearing harassment, physical harm. There may be no nearby school that offers appropriate classes. Class space may be an issue (for example, a high school class may already be filled). Material/instruction in a class for older students may be inappropriate for a younger student. Too few advanced classes may be available to match student's needs.

Discussion: Meets need for advanced level of instruction may or may not meet need for faster pace, divergent learning style. Many of these issues are addressed by creating a separate class for gifted students in a school at the same level within a given area, instead of sending students to a school for older students. Separate school could also take some students for single subjects. Within Portland, it has become fairly common for middle school students to attend high school and for high school students to attend college. This has been a very effective and inexpensive option and should be encouraged more often.

2d. "Ungraded" schools or "continuous progress" programs.

How it looks: Students are grouped solely by level of mastery, not by age or grade level.

Advantages: Inexpensive. Allows students to remain in neighborhood schools. Flexible. Permits acceleration as needed, up to the "ceiling" of instruction of that school. Less visible: students are not "labeled" since program is school-wide. No separate costs/programming for TAG-identified students. Achievement scores for entire school may improve.

Disadvantages: Uses all teachers in school; most teachers lack training in gifted education. Addresses level but not rate, or distinctive learning styles, of gifted students. Creates difficult scheduling and class space problems. For students to be regrouped, a small school must teach each subject at a fixed time: teachers lose flexibility in managing class time. Gifted students may complete available curriculum rapidly and then have no place to go. Students have less contact with a single "homeroom" teacher. Some schools find that frequent "rotation" through classrooms is disruptive or confusing to students. Middle schools in particular raise security issues created by frequent class changes. Some reports that this model takes up instructional time for additional testing.

Discussion: This is a variant of the "Joplin plan" which uses cross-grade, subject-based ability grouping. It is part of the "Success for All" program which has been piloted in some Portland schools, including Humboldt (for reading). It requires the entire school to follow the program. The few studies that are available suggest improved outcomes. "Success for All" has been effective in other districts. This form of cross-grade grouping is similar to many local high school programs. It may be better suited to secondary and upper elementary students than to students in the first three grades. "Underachievers" and students with less interest in school may be "lost" or fail to progress. "Mixed age" and "blended" classrooms are aversion of this model on a smaller scale, but cannot accommodate the instructional needs of highly gifted students, who are typically four or more grade levels above their assigned grade. Some mixed age "teams" in middle schools could incorporate this method, but most lack sufficient teachers to offer differentiated classes. If instruction is not differentiated and accelerated, achievement gains may be compromised. A task force on "Non-Graded Primary" schools created under the Oregon Educational Act for the 21st. Century recommended "non-graded" primary schools, but the goal seems to have been to increase, not decrease, the span of abilities represented in each classroom. There is no evidence that this approach, which renders direct instruction virtually impossible, increases achievement. (Grossen, 1996)

2e. Within-Class "Cluster grouping"

How it looks: All students in the school are clustered by "ability" groups in the classroom to reduce the range of abilities in each class. Classroom instruction is differentiated for each group. Students may be regrouped during the day for specific subjects.

Advantages: Inexpensive. Permits students to remain in home schools. Flexible: students may be reassigned to different clusters each year and during day. Less visible to students than "labeling," of separate classrooms, program. Reduces burdens on teachers by reducing ability range within classrooms. Achievement scores for entire school may improve. One controlled study (Gentry, 1999) found it increased teacher morale, student achievement, innovative teaching throughout school.

Disadvantages: Can be confusing, involve many teacher and/or classroom changes during day. May reduce contact between student and single homeroom teacher. May not meet needs of very gifted students. Requires staff development/coordination to succeed.

Discussion: This has not been well researched, but the recent study by Gentry (1999) looks extremely promising. Costs were staff development. Teachers were assigned to the high achieving clusters because they volunteered; none of the other teachers in the school wanted to teach these clusters. All teachers had two half day in-service sessions. Opportunities to attend regional, state and national conferences were provided. Teachers of high achieving clusters took additional classes and workshops. Some teachers taught both very high and very low achieving clusters at different times of day. Every classroom had at least one "high" cluster. School wide average achievement rose considerably in contrast to a matched "control school." Number of "low achieving" students dropped dramatically. Both the treatment and control schools were "low" in socio-economic status, but they were in rural communities. Differentiation of instruction seemed to be essential, as were teacher collaboration and effective leadership. Experiment was not limited to cluster grouping: the "treatment" school also used cross-grade grouping and acceleration as well as new teaching strategies.

A national study reported in 1997 found that instruction in clustered classrooms was greatly improved compared to regular classrooms. All the responding school districts indicated overall positive reactions from staff, administrators, parents and students. Only 1% of schools noted negative parent reactions. Schools reported improvements on student achievement and on social and affective areas (Schuler, 1997) On the other hand, Delcourt et. al (1994) found that gifted students who were in separate programs showed higher achievement gains than students in within-class programs.

### 3. Full-time placements for gifted students:

How it looks: Students are placed in a program with other gifted/able students throughout the school day. The program may be designed for a particular group of students: e.g. exceptionally gifted, or underachieving students.

#### 3a. Full-time separate classrooms

How it looks: Students are identified as gifted and assigned to a full-time separate classroom for gifted students in a neighborhood school. In areas with few identified TAG students, students from several nearby schools may be assembled in one of the schools to increase class size.

Advantages: Inexpensive. Transportation costs are minimal. Same staffing costs as before. Popular with parents in program. Student achievement scores rise very substantially. Students are grouped with others of same age as well as ability, so class can accommodate their developmental as well as academic levels. Students social/emotional needs and rate/level needs are addressed.

Disadvantages: Program is visible within school, may cause resentment in un-included families, playground conflicts. Separate nature of program raises problems about who will qualify. School may not have enough students to fill class; inclusion of inappropriate students may slow class down. School may have a few too many students for class. Usually not challenging enough for exceptionally gifted students (but they can be "skipped" or accelerated within program.) Success is entirely dependent on the ability/training of the teachers in the classroom, and Portland does not have teachers with training in gifted education.

Discussion: Positive results depend on the quality of the teaching staff and the use of an appropriate curriculum. This model has been used in San Diego and other districts with great success. San Diego has a two-tier model. The district has 150,000 students. Students who test in the top tenth of one percent are assigned to "seminar" classrooms--separate self-contained classrooms, usually blended with two grades in each classroom. Class size is limited to 20. There are at least one set of "seminar" classes in every high school cluster. Students who meet the testing qualifications may apply to any seminar program in the city, but must supply their own transportation; most apply to more than one. Admission is by interview. The "seminar" classrooms are self-contained, within a regular neighborhood school. In addition, the district offers "cluster" classes. These are first filled with students identified for the GATE program (similar to our TAG program). If there are not enough students to fill the class, students may be added to the classroom, but they must be high-achieving students. No fewer than half the students in a designated cluster class must be GATE students. There is a cluster classroom in virtually every elementary school. Within the school, students share assemblies, lunch, etc. with the other classrooms in the school. Both the cluster and seminar classrooms must be taught by trained teachers; there are approximately 1,200 teachers with gifted education certification. The San Diego parent interviewed said that there is very high parent satisfaction with the program and that it works very well overall. The major expenses are in the initial testing, and in the slightly smaller average seminar class size, which slightly increases FTE. There is also a program coordinator. There are 15,000 GATE students in the district, and about 1,600 seminar students. The program is about 30 years old.(Kelly, 1997)

In one mid-western district, gifted magnet homerooms were set up with a differentiated curriculum and open to students within the top 7% in ability. There were two 4/5 classrooms and one 2/3 classroom. A study at the end of the first year found overwhelming parent satisfaction. Some students had progressed so quickly that they hit the ceiling on the out-of-level tests used to measure their achievement. The average gain in the three homerooms was more than twice the expected growth for one year and the average functioning level of the students was equivalent to the level of students two grade levels higher in that district, significantly outperforming matched students who had not elected to enter the magnets. There was no evidence that pulling gifted students out for the magnet program caused any harm to the students who remained in their regular school program. In the class that lost the greatest number of students to the program, reading scores increased slightly. (McCaig, 1993) . This finding was confirmed by another study (Gentry, 1999) which concluded that placing high achieving students in a cluster group benefited all students in the school.

### 3b. Separate "TAG" School

How it looks: Students are tested, and admitted to separate schools on the basis of their scores/achievement. Schools operate with the same staff and costs as any other district school. District may or may not provide transportation.

Advantages: Inexpensive. Costs limited to testing, admissions, possibly transportation. Provides appropriate level and rate of instruction for nearly all students in program. Provides social peers. Trained teachers. Provision of appropriate materials/curricula is simplified. Addresses need of students who would otherwise be isolated in small schools. Studies show very substantial gains in

academic achievement. Some studies show other cognitive, social/emotional gains. May draw students now being home-schooled or in private schools.

Disadvantages: May be politically unpopular because of concerns of "elitism". Program depends on competence of principal, administration support. "All or nothing" admission may leave students out who would benefit. May take some gifted students out of a neighborhood school leaving others even more isolated than before. There may be too many or too few qualified students for a viable program and existing space. Students sometimes find program stressful or too competitive. If transportation is not provided by district, may be inequitable, because poor students may lack access to transportation. May be inappropriate for students gifted in only one or two subjects, or students who are learning disabled. May be lack of appropriately trained teachers.

Discussion: We could find no studies that questioned the benefits of these programs for the students who are in them. Other students can be expected to benefit in self-esteem and leadership, possibly in achievement. (Kulik, 1985, Grossen, 1996). There are difficulties in appropriate selection and the fate of students not admitted, or who are not successful in the program. Some of these programs also have long waiting lists and the students on the waiting lists may not be receiving any other services. It is essential to recruit students from minority groups and lower-income families into the school. Transportation remains an issue and is particularly of concern for low income families. The existence of a stand-alone school does not resolve the service problem for the students who do not attend. Neighborhood schools may protest loss of best students, though research shows this concern is not justified educationally. However, loss of best students may depress school-wide average of test scores.

#### 4. Hybrid Programs

How it looks: Program offers a mix of options, selected by parents and students. Different programs offer different options

Advantages: Flexibility. Choice: students are more likely to feel happy and successful in a program they have chosen to enter. Serves many different sorts of students. May enable district to concentrate resources on students in greatest need.

Disadvantages: loss of consistency throughout schools and district. Program successes may vary, depend on staff quality. Transportation still an issue. Parents may have difficulty finding out what programs are available, choosing among them. May be very expensive because of duplication of resources.

Discussion: Examples of the hybrid system.

Muckilteo, Washington, had a program that combined a separate full-time program for gifted students with a neighborhood school cluster/enrichment program. (Spangler, 1999) The separate program was in one designated school of the eleven elementary schools in the district. Students were bused from all over the district to the school, losing one half hour each way for transportation time. The school was a shared site with a neighborhood elementary, and all students participated together in lunch, P.E. and music classes. The only cost for the separate program was the busing. Students who were not eligible for the separate school, or who were not succeeding there, or who chose not to attend, were offered the neighborhood program. The program included a one day a week pull-out program in a center with a gifted education specialist for grades 3-6. The center was open four days a week, serving different schools in rotation through the week, in groups of 25 students. On the fifth day, the specialist traveled to participating schools and assisted the teachers of those students to compact their curriculum and adapt it. All children in the program were clustered together in their neighborhood

schools in a single classroom. Efforts were made to ensure that the same teacher was always assigned the gifted cluster, and that teacher was trained in gifted education. The district provided transportation. The enrichment center teacher sent a sheet with homework assignments to the teachers and the parents and both had to sign it. The program operated within a "teach-4" program at the neighborhood schools. The entire school spent one day a week on school-wide enrichment activities, and that was the day that was used for the pull-out to the enrichment centers. There was very high parent satisfaction with the program, but the neighborhood program was terminated because of the high expense of the extra teaching staff.

Other examples of the hybrid system can be found in the report that Portland Public Schools commissioned in 1994, written by Jennifer Jasaitis. They include the Pyramid Model used in Texas (p.25) and the mix of programs offered by Chicago public schools (p.27).

Conclusions:

Any grouping strategy must also include staff development, planning time, and instruction adapted to the learning styles and needs of those particular students. No learning group should be assigned to unprepared teachers. Grouping is only effective when combined with appropriate, high quality instruction--School administrators should promote flexibility wherever possible--No single grouping arrangement will meet every student's needs.

*Margaret DeLacy*

*Copyright, 2/8/2000. Copying permission is granted for noncommercial use only. All other rights are reserved.*

*rev. 2/5/2000 for Strategic Action Team 4*