To Track or Not to Track? **Heather Hesson 3/28/10**

Question

What method of instruction best meets the needs of *all* students? To track or not to track?

Literature Review

Ansalone, G. (2005). Getting our schools on track: Is de-tracking really the answer? *Radical Pedagogy*, *6*(2), 1.

This article gives viewpoints of proponents for both tracking and de-tracking students in the classroom.

Proponents for tracking believe that not tracking students creates a classroom in which instructors teach to the middle and miss both extremes of ability levels. They believe that by being able to track students, instruction can be more individualized to learners and therefore enhance their overall academic achievement.

Proponents of de-tracking insist that a wide range of academic diversity within the same class creates an effective environment for learning. It increases academic stimulation to low achievers and eliminates the stigmas (such as a slow-paced and lower quality of instruction) associated with being assigned to a lower track.

Ireson, J., & Hallam, S. (2009). Academic self-concepts in adolescence: Relations with achievement and ability grouping in schools. *Learning and Instruction*, *19*(3), 201-213.

This article as well as the first, states that proponents of de-tracking also believe that tracking students creates a negative academic self image for those lower tracked students.

Carbonaro, W. (2005). Tracking, students' effort, and academic achievement. *Sociology of Education*, *78*(1), 27-49. Retrieved June 25, 2009, from EBSCO Host database.

"Sorensen and Hallinan (1977) argued that differences in achievement among students can be explained by three factors: learning opportunities, effort, and ability." Basically this makes a claim that when students are tracked, the lower tracked students are not given the same learning opportunities as higher ability students, and that the teachers require less of the students, therefore, the students give less effort. As a result, lower tracked students sometimes appear to be less capable when they are not.

Mallery, J. L., & Mallery, G. (1999). The American legacy of ability grouping: Tracking reconsidered. *Multicultural Education*, *7*(1), 13-15. Retrieved June 25, 2009, from Wilson Web.

This article comments on the racial and ethnic gaps that are created by tracking students. As ability grouping is practiced today, white and Asian students are vastly overrepresented in

"high" groupings, while African-American and Latino students are similarly overrepresented in the "low" rankings.

This article also sheds light on the fact that students perform in relation to teacher expectations, regardless of their ability levels.

Methodology

Core subject teachers and the principal at Caldwell High School, as well as the district curriculum director were asked to complete surveys. Participants completed an open-ended survey that asked which of the following two methods the participant believes provides the best education for ALL students: tracking students by ability or not tracking students by ability. Participants also gave background information about their years of experience in education. A sample copy of the survey is attached.

Aggregate and disaggregate data from Caldwell High School from the last 10 years was also analyzed and compared to the years our district has tracked and not tracked students by ability in high school core classes. Such data includes proficiency scores (9th Grade Proficiency Tests and Ohio Graduation Tests) and yearly Ohio Report Card ratings (2004/2005 – 2008/2009).

Results

Literature Review

Recent evidence-based research backs up the non-tracking approach to education. In conclusion, the main reasons not to track students by ability include the following:

- Students perform in relation to teacher expectations, regardless of their ability levels. "Students excluded from high-ability classes encounter lower motivation among their peers and develop less motivation themselves; thus they achieve less" (Mallery & Mallery, 1999). De-tracking prevents lower level students from receiving slower-paced and inferior-quality instruction.
- When students are tracked, racial and ethnic minorities (i.e. students with special needs) are distributed disproportionately by ability in middle school and high school tracks.
- If teachers use techniques of differentiated instruction, it allows teachers to reach the levels of *all* students without the need to track students by ability. "Informal learning experiences are more enjoyed than traditional classroom experiences because they better support learners of all types as well as address motivation and promote enjoyment of learning" (Melber and Brown, 2008).

Surveys

The results of the survey showed a majority of staff in favor of tracking students by ability into college prep and general tracks. They felt that when students are "de-tracked" that teachers tend to "teach to the middle." They did express, however, that students should not be "stuck"

in one track for all subjects, which has been the case in the past. The majority of the staff also agreed that individualizing instruction is necessary for maximum performance of all students, but can be done most effectively when students are grouped with peers of similar academic ability. Differentiating instruction requires extra time, planning, and collaborating with others, which the teachers and administration feel is not realistically available.

Some staff members commented that test scores are declining as a result of de-tracking core classes. Although they understand that de-tracking may be better for some students socially, academically they believe tracking is most beneficial for all students. Unfortunately in a small school, "their labels become their identities, therefore affecting their achievements." The teachers also find it hard to teach classes that are not tracked without being in a co-teaching environment, and even those teachers who are co-teaching do not feel that they have adequate time and training to be as successful as they should be in that setting. All teachers and administration agreed that regardless of student ability and method of instruction, that teachers should have high expectations for all students.

One staff member's opinion on method of instruction sums up the majority of responses on the surveys: "Tracking enables students to feel more comfortable in a classroom. Students working at a lower level do not feel intimidated by others' work, and students at a higher level do not feel as though they are being held back. Teachers are also better able to tailor their lessons to meet the group's needs."

Archival Data

Table 1 &Graphs

State standardized test scores from the last 10 years were obtained from the Ohio Department of Education website. The 9th Grade Proficiency Test was given from 1998/1999 – 2002/2003, and the Ohio Graduation Test was given from 2003/2004 – 2008/2009. This data was collected to see if there were any correlations between student proficiency and core classes being tracked vs. not tracked.

Table 2a & 2b

The percentage of students that are proficient or above varies greatly between subjects, so in order to put the data in perspective, Ohio public schools proficiency averages are also compared to the data from Caldwell High School.

Table 3 & Graphs

Data was also aggregated to analyze the breakdown of proficiency levels for just the Ohio Graduation Test (2005 – 2009). The yearly performance of high-level students has been shown in bar graphs, since some staff members expressed that there has been a decline in the performance of these students due to not tracking all core classes. The data provided in these graphs does not support this statement.

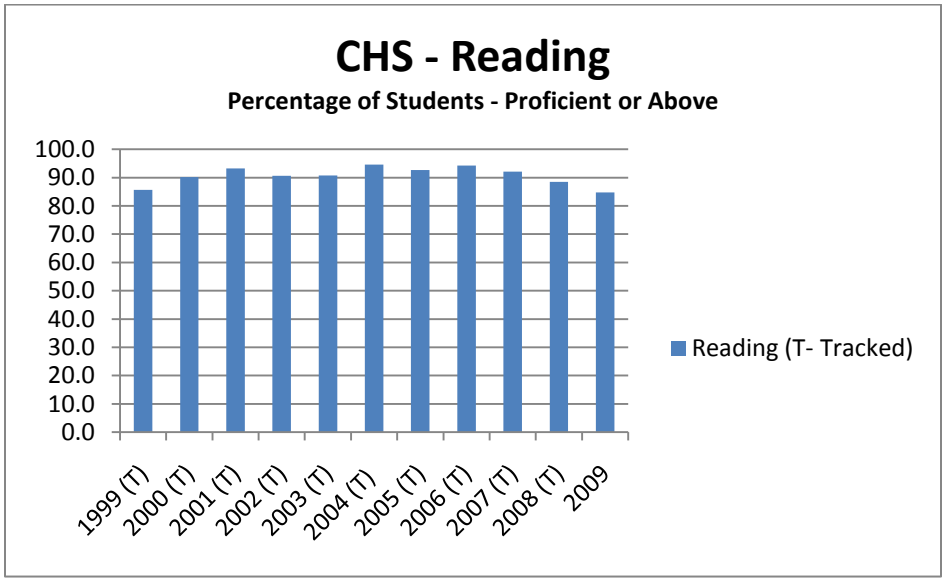
Table 1 - Caldwell High School (CHS) State Standardized Test Results (1999-2009)

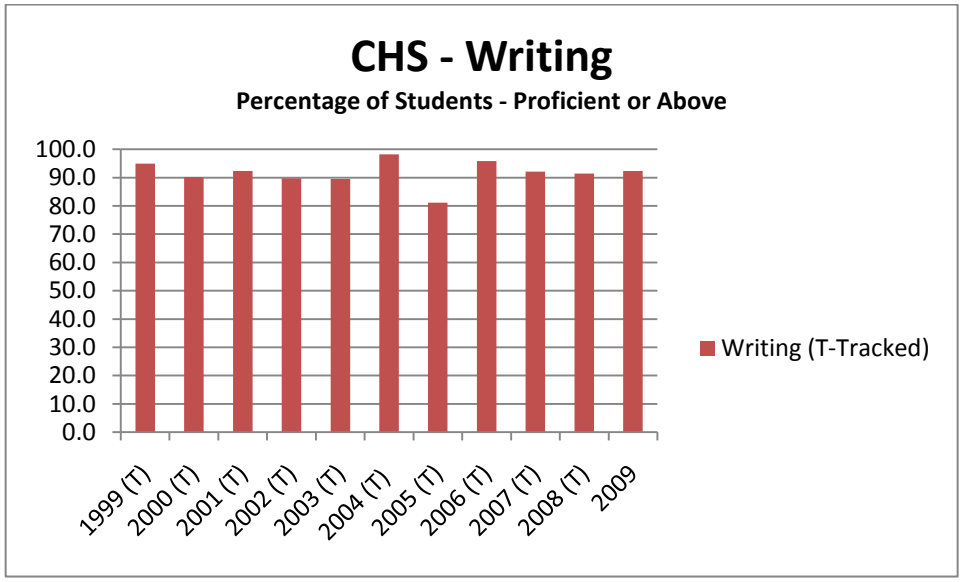
Percentage of "Passing" Students (includes proficient and above)

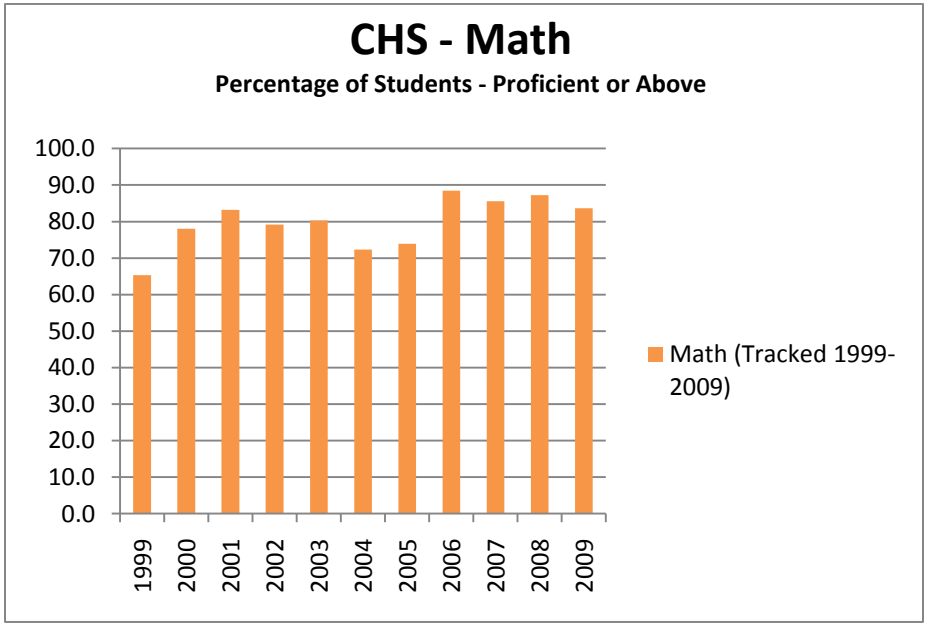
	Ohio 9th Grade Proficiency Tests					10th Grade OGT						
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Total Avg.**
Reading (T- Tracked)	85.7	90.2	93.3	90.7	90.8	94.6	92.7	94.3	92.1	88.5	84.8	90.70
Writing (T-Tracked)	94.9	90.2	92.4	89.7	89.5	98.2	81.1	95.8	92.1	91.4	92.4	91.61
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	
Math (Tracked 1999-2009)	65.3	78.0	83.2	79.2	80.3	72.3	73.9	88.5	85.6	87.2	83.6	79.74
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	
Social Studies (Never Tracked)	77.6	81.4	83.9	83.3	80.3	93.0	73.9	74.2	81.6	77.1	82.3	80.78
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	
Science (T-Tracked)	75.3	75.5	86.6	73.2	86.8	96.5	75.4	72.8	84.2	81.5	77.2	80.45

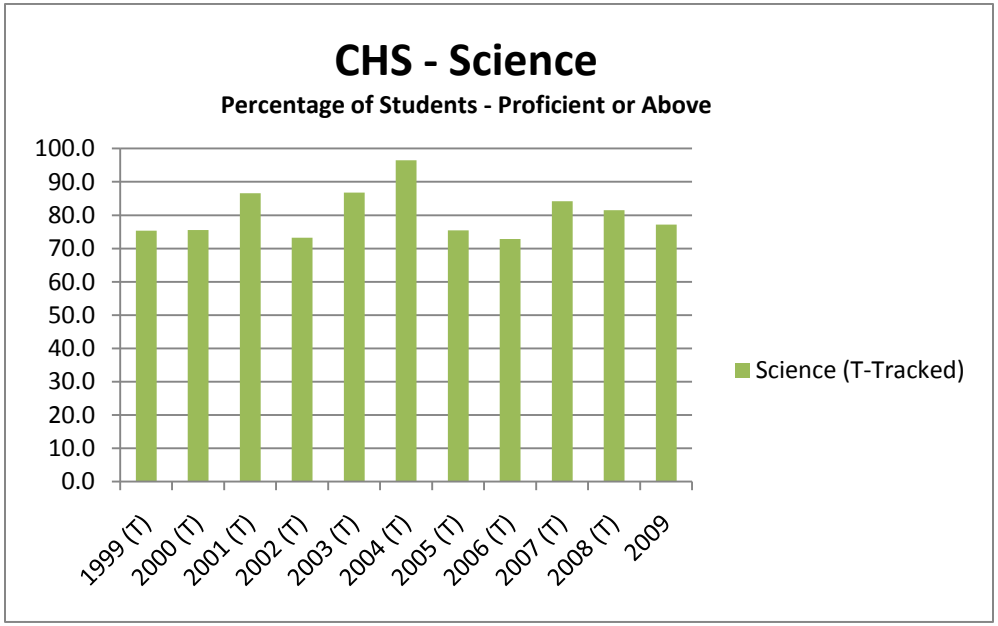
Red – Students were either on a “college prep track” or “general track” for a core class.

Black – Core class was not tracked by ability at all.






CHS - Math
Percentage of Students - Proficient or Above
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Math (Tracked 1999-2009)


CHS - Science
Percentage of Students - Proficient or Above
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1999 (T)
2000 (T)
2001 (T)
2002 (T)
2003 (T)
2004 (T)
2005 (T)
2006 (T)
2007 (T)
2008 (T)
2009
Science (T-Tracked)

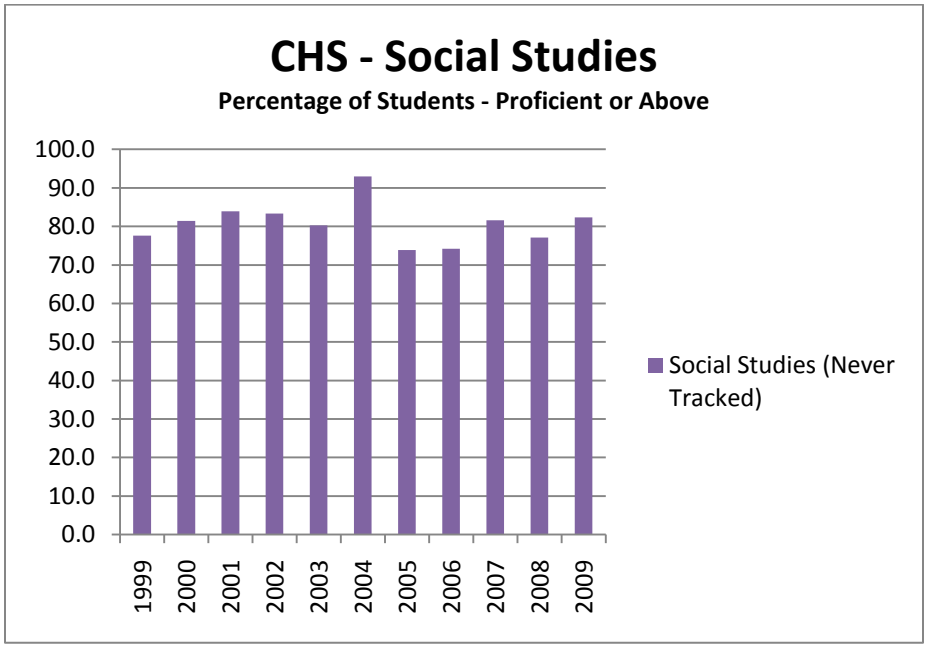

CHS - Social Studies
Percentage of Students - Proficient or Above
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Social Studies (Never Tracked)

Table 2a - Caldwell High School OGT Results (2004-2009) vs. State of Ohio (Public Schools) OGT Results (2004-2009)

Percentage of "Passing" Students (includes proficient and above)

10th Grade OGT

Reading	**2004 (Pilot)**	**2005**	**2006**	**2007**	**2008**	**2009**	**Total Avg. (excludes 2004)**
Caldwell	***94.6***	***92.7***	***94.3***	***92.1***	***88.5***	84.8	90.5
State of Ohio (Public Schools)	77.5	90.7	89.2	86.7	85.1	84.8	87.3
	17.1	2.0	5.1	5.4	3.4	0.0	3.2

Writing	**2004 (Pilot)**	**2005**	**2006**	**2007**	**2008**	**2009**	
Caldwell	***98.2***	***81.1***	***95.8***	***92.1***	***91.4***	92.4	90.6
State of Ohio (Public Schools)		82.1	88.0	89.3	84.9	90.3	86.9
		-1.0	7.8	2.8	6.5	2.1	3.7

Math	**2004 (Pilot)**	**2005**	**2006**	**2007**	**2008**	**2009**	
Caldwell	***72.3***	***73.9***	***88.5***	***85.6***	***87.2***	***83.6***	83.8
State of Ohio (Public Schools)	67.2	79.6	82.4	81.0	79.0	82.0	78.5
	5.1	-5.7	6.1	4.6	8.2	1.6	5.3

Social Studies	**2004 (Pilot)**	**2005**	**2006**	**2007**	**2008**	**2009**	
Caldwell	93.0	73.9	74.2	81.6	77.1	82.3	77.8
State of Ohio (Public Schools)		77.5	79.1	76.0	78.4	81.7	78.5
		-3.6	-4.9	5.6	-1.3	0.6	-0.7

Science	**2004 (Pilot)**	**2005**	**2006**	**2007**	**2008**	**2009**	
Caldwell	***96.5***	***75.4***	***72.8***	***84.2***	***81.5***	77.2	78.2
State of Ohio (Public Schools)		70.9	72.6	72.1	72.6	76	72.8
		4.5	0.2	12.1	8.9	1.2	5.4

KEY: ***data*** = years that were tracked by ability

	Avg. Proficiency (Years Tracked)	**Avg. Proficiency - *Table 2b* (Years Not Tracked)**
Reading	91.9	84.8
Writing	90.1	92.4
Math	83.8	N/A
Social Studies	N/A	77.8
Science	78.5	77.2

Table 3 **- Caldwell High School (CHS) Ohio Graduation Test Results (2005 -2009)**

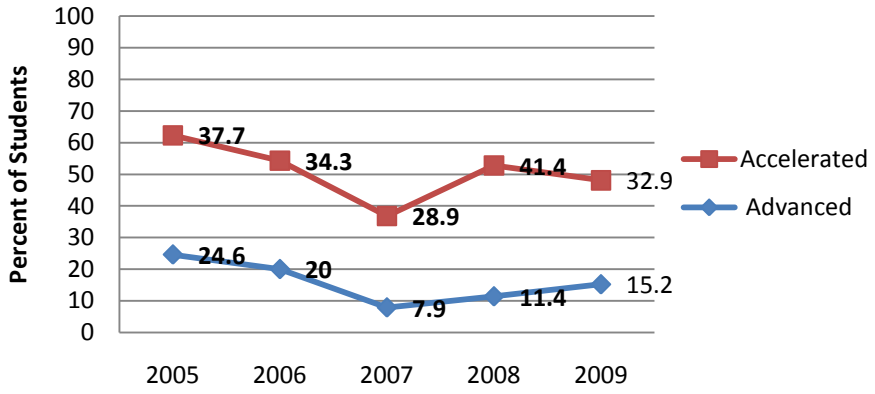
Percentage of "Passing" Students (includes proficient and above)

	2004 (Pilot)	2005	2006	2007	2008	2009	Average (excludes 2004)
Reading							
Advanced	16.2	***24.6***	***20***	***7.9***	***11.4***	15.2	15.8
Accelerated	11.7	***37.7***	***34.3***	***28.9***	***41.4***	32.9	35.0
Proficient	66.7	***30.4***	***40***	***55.3***	***35.7***	36.7	39.6
Basic	4.5	***4.3***	***5.7***	***6.6***	***8.6***	8.9	6.8
Limited	0.9	***2.9***	***0***	***1.3***	***2.9***	6.3	2.7
Writing							
Advanced		***2.9***	***2.9***	***0***	***0***	2.5	1.7
Accelerated		***44.9***	***48.6***	***44.7***	***45.7***	53.2	47.4
Proficient	98.2	***33.3***	***44.3***	***47.4***	***45.7***	36.7	41.5
Basic		***17.4***	***2.9***	***6.6***	***8.6***	6.3	8.4
Limited		***1.4***	***1.4***	***1.3***	***0***	1.3	1.1
Math							
Advanced	1.8	***18.8***	***31.4***	***14.5***	***21.4***	***24.1***	22.0
Accelerated	7.1	***23.2***	***27.1***	***25***	***12.9***	***26.6***	23.0
Proficient	63.4	***31.9***	***30***	***46.1***	***52.9***	***32.9***	38.8
Basic	5.4	***17.4***	***5.7***	***10.5***	***5.7***	***8.9***	9.6
Limited	6.3	***8.7***	***5.7***	***3.9***	***7.1***	***7.6***	6.6
Social Studies							
Advanced		15.9	20	14.5	15.7	26.6	18.5
Accelerated		17.4	17.1	17.1	10	24.1	17.1
Proficient	93	40.6	37.1	50	51.4	31.6	42.1
Basic		17.4	12.9	14.5	17.1	12.7	14.9
Limited		8.7	12.9	3.9	5.7	5.1	7.3
Science							
Advanced		***11.6***	***11.4***	***11.8***	***18.6***	16.5	14.0
Accelerated		***20.3***	***21.4***	***25***	***30***	25.3	24.4
Proficient	96.5	***43.5***	***40***	***47.4***	***32.9***	35.4	39.8
Basic		***15.9***	***22.9***	***14.5***	***14.3***	20.3	17.6
Limited		***8.7***	***4.3***	***1.3***	***4.3***	2.5	4.2

Note: In both the table and following graphs, the bold italicized percentages represent years in which those courses were tracked by ability into college prep or general track courses.

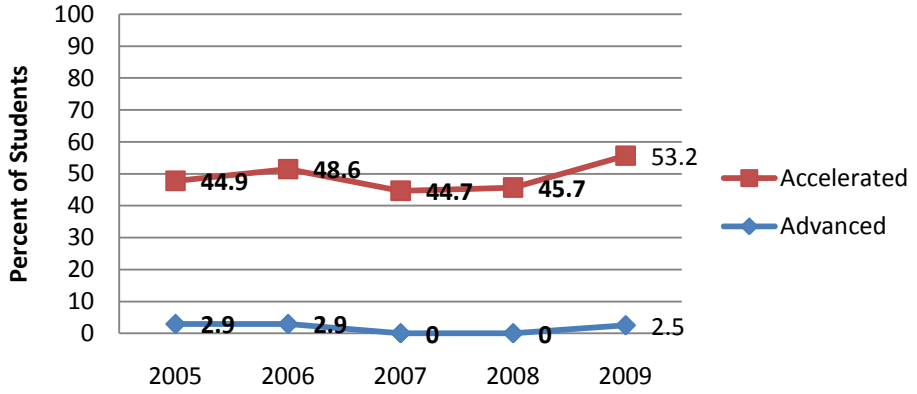
CHS - Reading OGT Results

Advanced & Accelerated Student Performance



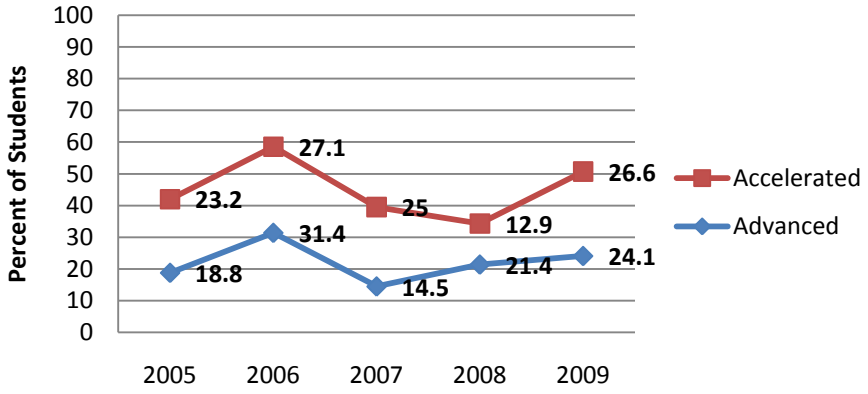
CHS - Writing OGT Results

Accelerated & Advanced Student Performance



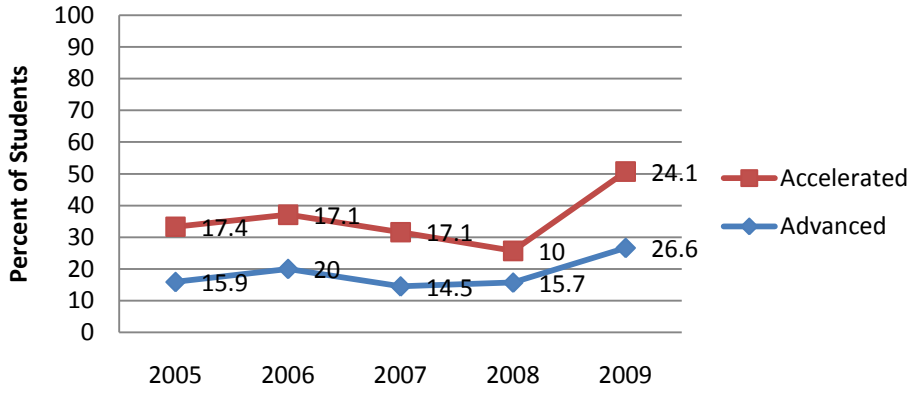
CHS - Math OGT Results

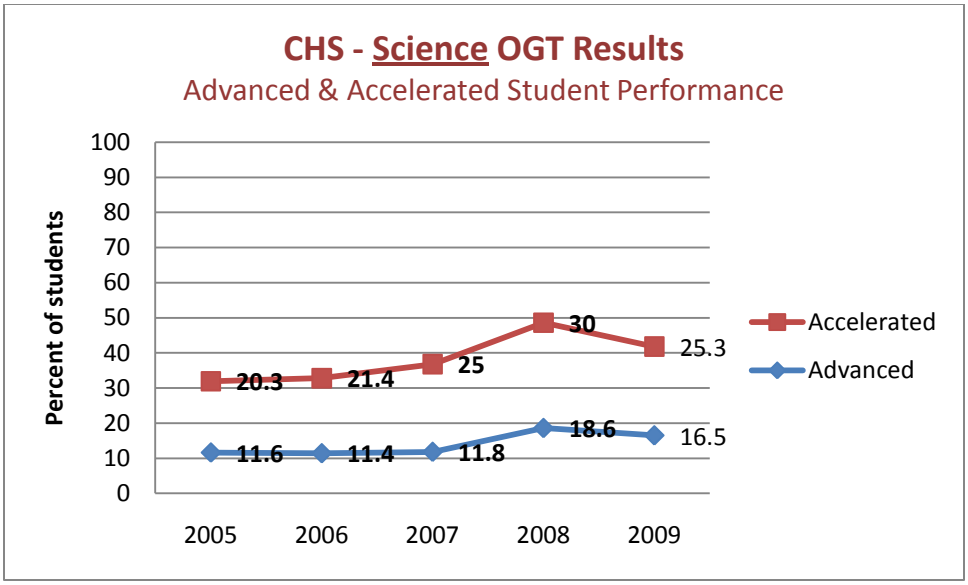
Advanced & Accelerated Student Performance



CHS - Social Studies OGT Results

Advanced & Accelerated Student Performance





* All data was retrieved from the Ohio Department of Education website and aggregated in attempt to show correlations between standardized test performance and method of instruction at Caldwell High School.

* Students with Individualized Education Plans (IEP) and/or Limited English Proficiency (LEP) are also included in the figures.

In conclusion, I was unable to support either method of instruction with the data collected from Caldwell High School. There are too many variables, such as different measures of proficiency, variation in number of years tested for proficiency, teacher turn-over rates, demographics, student abilities, etc… Student performance is affected by more than just the method of instruction. Unfortunately, none of the data showed any strong correlations to support either the tracking or de-tracking approach.

"A motivated student is more likely to apply him or herself to the learning task at hand (Covington 1998), which in turn can lead to greater learning gains." This type of motivation can be reached through differentiating instruction to tailor to each student's needs. Differentiating instruction gives students options in four facets of learning: what they learn (content), how they learn (process), how they show mastery or understanding (product), and what type of setting best facilitates their learning (environment). "These types of experiences are critical in meeting different learning styles and effectively [serving] the complete spectrum of learners" (Melber and Brown, 2008). Regardless of how students are grouped in the classroom, all students need differentiated instruction to meet the array of learning styles and abilities, while still providing high levels of expectation for all students.

Below, I have also included the performance ratings given from the state of Ohio each year, for both Caldwell High School and Caldwell Exempted Village School District from 2001/2002 to 2008/2009. The School Report Card shows the progress schools have made based on four measures of performance: State Indicators, Performance Index, Adequate Yearly Progress, & Value-Added. Based on the ratings Caldwell Schools have earned, it can be concluded that regardless of the method of instruction being used, other teaching styles and practices are resulting in above-standard student performance.

	Caldwell High School	Caldwell Exempted Village School District
2001/2002	N/A	Continuous Improvement
2002/2003	Excellent	Continuous Improvement
2003/2004	Excellent	Continuous Improvement
2004/2005	Excellent	Continuous Improvement
2005/2006	Effective (did not meet graduation requirement)	Effective
2006/2007	Excellent	Effective
2007/2008	Effective (did not meet graduation requirement)	Effective
2008/2009	Effective (did not meet graduation requirement)	Excellent

I feel that the only way to be inviting to *all* students, is to offer the same opportunities to everyone and differentiate instruction to meet the needs of a wide range of learners and abilities. It seems that the problem lies in the fact that most teachers do not know how to effectively differentiate instruction, do not feel that they have the time required, and/or are unable to collaborate with others, which is another essential part in making these practices work.

Action Plan

Even though our school is meeting expectations set by the state of Ohio, there is always room for improvement to be made. If the staff feels strongly that the core classes should continue to be tracked by ability, even though evidence-based research shows otherwise, I am going to propose the following two ideas. The first is to see if we could adopt a similar form of grouping which is being practiced in areas of England. "The most common form of ability grouping in England is setting (regrouping) in which students are grouped on the basis of their attainment in particular subjects, such that an individual student could be in high-ability groups (sets) for some curriculum subjects and lower ability groups (sets) for others" (Ireson & Hallam, 2009).

According to evidence based research, differentiation of instruction in non-tracked classes is the best method of instruction for *all* students. However, differentiation still needs to be used in tracked classes as well. "Differentiating instruction to meet the needs of a wide range of ability levels is an extended process; not something that should be expected to occur overnight. Much of the existing focus on differentiation (during in-service sessions and existing in the literature) ignores the complex process of planning that needs to be considered when setting out to change classroom environments and instructional design. Planning and preparation are essential ingredients in the recipe for quality differentiation that meets state standards, but more important are student needs" (Sondergeld, 2008).

My second plan of action is to create an in-service opportunity first for my administrators and then for my district to bring all of this research forward. I would then suggest that we create content area teams, ranging from grades 3 through 12 that would focus on the following four areas of differentiating instruction within their content: content, process, product, and environment. The following article explains what these four factors look like in the classroom and give suggestions as to how one might differentiate these four areas.

Sondergeld, T. A. (2008). Science, standards, and differentiation: It really can be fun! *Gifted Child Today*, *31*(1), 34-40.

Tomlinson (2000a) discussed four ways of differentiating: content, process, product, and environment. In addition, she focused on students by recognizing that readiness, interest, or learning profile (basically preferred learning styles) are key considerations when exploring differentiation options.

- ⊡ Content, or what is intended to be learned, often is dictated by a course of study based on average performance at grade level. Content can be differentiated by providing materials at varied ability or grade levels in one classroom.
- ⊡ Process differentiation (how the content is taught and hopefully learned) refers to use of diverse activities that are varied to meet student interests or preferences for learning.
- ⊡ Differentiating via product means that students have some choice in how they will show the teacher, class, or other audience what they have learned.
- ⊡ Providing students with both quiet and group work stations and the opportunity to move around or sit still are ways the learning environment can be differentiated. Altering the methods of instruction or organization of the classroom to facilitate learning are other common means of differentiating the environment to help learners be successful.

Within the content area teams, the members would place themselves into 1 of 4 subcommittees: (1) content, (2) process, (3) product, or (4) environment. The members within each group would meet 2 times each month to research and share different methods of differentiation within their "category" that can be applied to each content member's instruction.

Ongoing monthly collaboration among content area teams would then take place in order to apply these methods to each unit of instruction within their grade levels or classrooms. These meetings would also allow teachers to reflect on how these practices are working in the classroom and make necessary revisions.

Muskingum College: Department of Education – EDUC 607 **Teacher Survey**

Research Title*: To Track or Not to Track?* **Principle Investigator: Mrs. Heather Hesson**

Teacher # _____

Years of Experience in Education _____

(1) How many years have you taught in a high school that tracks students in their core classes by ability level? Core classes are Math, Science, History, and English classes. Often these tracks consist of special education, general track, college prep track, advanced placement, etc…	**_____ years**
(2) (a) How many years have you taught in a high school that does not track students in their core classes by ability level? (b) If you have had experience co-teaching, was it a positive or negative experience? Explain.	**_____ years** **Positive Negative**

_____

_____

_____

_____

(3) (a) Most schools use one of two methods of instruction: tracking classes by ability and not tracking classes by ability. Which of these two methods do you believe provides the best education for ALL students? Please use the space below to explain your reasoning.	**Tracking Not Tracking**

_____

_____

_____

_____

_____

_____

(b) Based on your answer to 3a, give pros and cons of using that method of instruction from a teaching standpoint:

_____

_____

_____

_____

_____

(4)(a) When students are tracked, do you believe that one or more tracking groups benefit more than the others? Explain.

_____

_____

_____

_____

(b) When students are tracked, do you believe that one or more tracking groups benefit less than the others? Explain.

_____

_____

_____

_____

(5) (a) When students are not tracked, do you believe that one or more types of learners benefit more than the others? Explain.

_____

_____

_____

_____

(b) When students are not tracked, do you believe that one or more types of learners benefit less than the others? Explain.

_____

_____

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_____

References

Ansalone, G. (2005). Getting our schools on track: Is detracking really the answer? *Radical Pedagogy*, *6*(2), 1.

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Mallery, J. L., & Mallery, G. (1999). The American legacy of ability grouping: Tracking reconsidered. *Multicultural Education*, *7*(1), 13-15. Retrieved June 25, 2009, from Wilson Web.

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Sondergeld, T. A. (2008). Science, standards, and differentiation: It really can be fun! *Gifted Child Today*, *31*(1), 34-40.