

**A COMPARATIVE STUDY OF KINDERGARTEN STUDENTS'  
LEVELS OF ENGLISH ACHIEVEMENT BY WAY OF TRACKING  
AND DETRACKING AT CHOKCHAI HATHAIRAJ SCHOOL IN  
BANGKOK, THAILAND**

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**Abstract:** The purpose of this study was to compare Kindergarten students' levels of English achievement by way of two different grouping arrangements known as tracking and detracking at Chokchai Hathairaj School in Bangkok, Thailand. This study was to determine if any statistically significant difference existed between those instructed in accordance with tracking and those instructed in accordance with detracking in terms of their respected levels of English achievement. This study was conducted over a period of nine weeks, from July 2020 to August 2020. A total of 60 Kindergarten students took part in this study. In this study, 30 students were grouped according to ability as determined by a pre-test and in accordance with tracking, and 30 students were grouped randomly regardless of ability in accordance with detracking. This study used a pre-test and a post-test to identify students' levels of English achievement. The test scores were analyzed by statistical analysis, including mean and standard deviation, and compared by way of paired samples and independent samples *t*-tests.

The findings showed there was a significant difference between pre-test and post-tests by ways of both tracking and detracking at the .05 level. The findings also showed no significant difference in the gain difference between pre-tests and post-tests by tracking and detracking at the .05 level.

**Key Words:** Chokchai Hathairaj School, Detracking; Gain, Kindergarten 1; Level of English Achievement; Tracking

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## **Introduction**

The grouping or placement of individual students within a class has always been a hotbed for debate (Domina et al., 2019). This paper examines commonly used standards and practices of tracking and detracking in terms of a student placement within a classroom. Generally speaking, tracking is synonymous with both streaming and exclusion, while detracking is synonymous with both mainstreaming and inclusion.

The intentional grouping of students according to ability is commonly referred to as tracking, while the intentional grouping of students of mixed ability is referred to as detracking (Hillinan, 2004). There is much research in condemnation of tracking and tremendous research in support of detracking (Yee 2013).

Supporters of tracking insist it is natural, moral, logically sound, and is the best way to meet the needs of every student (Domina et al., 2019). Supporters of tracking argue teaching and learning can be accomplished with greater efficiency in a tracked environment and less so in a detracked environment. Critics of tracking claim it gives unfair advantages to some students while marginalizing and even oppressing other students. Opponents of tracking claim it has consistently been proven inadequate and inequitable for low-achieving and disadvantaged students (Rubin, 2006).

Detracking is allegedly a backlash against tracking, and its implementation is said to be a remedy to the ill effects of tracking (Rubin & Noguera, 2006). Supporters of detracking claim it is moral, logically sound, and the best way to accommodate the needs of every student (Domina et al., 2019). Opponents of detracking argue both struggling and gifted students alike are not served in an environment where some students excel with seemingly little effort, and others never seem to “get it.” Furthermore, according to its opponents, detracking sets the stage for unruly students to disrupt those who are ready and willing to learn. Lastly, a wide spectrum of skills and behavioral profiles in one classroom requires a lot of differentiation which can clearly overload teachers (Scharf & Keating, 2012).

This research’s heart lies in exclusion and inclusion because tracking is inherently exclusive, while detracking is inherently inclusive. Researchers and school districts widely accept inclusion, and heavily promoted by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), while exclusion is largely vilified by researchers and educators alike (Barnes & Gaines 2015).

This research aimed to identify what effects tracking, and detracking would have on Kindergarten students' levels of English achievement in a private school setting in Bangkok, Thailand.

### **Methodology**

The purpose of this study was to discover what the effects tracking and detracking would have on Kindergarten students' levels of English achievement and ultimately to determine if any significant difference existed between tracking and detracking in terms of Kindergarten students' levels of English achievement.

The setting for this research was a private school in Bangkok, Thailand. The population consisted of ethnically Thai children from middle- and upper-middle-class households and for whom English is a foreign language. The age range was 3-4 years old.

At the start of the school year, the school randomly assigned 60 Kindergarten students to one of two classrooms, so it has to total 30 students per classroom, which the school formally refers to as K1/1 and K1/2. Such random assignment is inherently in accordance with detracking because it does not regard any individual consideration regarding skillset, ability, interest, or disposition. The classroom formally referred to by the school as K1/1 was chosen as the experiment group to receive the treatment of tracking, which takes to account individual aptitude before placing students within a classroom. The classroom formally referred to by the school as K1/2 was chosen to be the control group to receive the treatment of detracking, which is the default method of placing students in a classroom practiced by the school.

The researcher used a pre-test to determine all 60 Kindergarten students' English achievement levels before the tracking and detracking were implemented. The pre-test showed that K1/1 (experiment group) and K1/2 (control group) were similar in terms of their respected English skills at the start of this 9-week experiment. The experiment group then received instruction in accordance with tracking, and the control group received instruction in accordance with detracking.

At the end of the 9-week experiment, the researcher then used a post-test, which this study refers to determine the students' English achievement levels after tracking and detracking. This researcher then compared gains in scores, if any, between pre-tests and post-tests within both groups and then compared the gains between groups.

### *Research Instrument*

Both the pre-test, which this study refers to as the English Foundation Pre-Test, and the post-test, which this study refers to as the English Acquisition Post-Test Assessment, were designed in 2014-2015 in part by this researcher in collaboration with six other Kindergarten teachers under the direction and guidance of administrators at Ek Burapa School, in Bangkok, Thailand, and are still being implemented today. Two Kindergarten teachers at Ramkhamhaeng University Demonstration School evaluated, approved, and implemented these tests in 2017 and 2018. Lastly, two Kindergarten teachers evaluated and approved these tests, the Kindergarten supervisor, the head Kindergarten administrator, and one senior administrator at Chokchai Hathairaj School in Bangkok, Thailand, in 2020. This teacher and the entire teaching staff have previously used these tests in three different schools in Bangkok, Thailand and all contend they are valid and reliable.

## **Results**

### *Research Objective 1*

This research objective was to determine Kindergarten students' levels of English achievement in pre-test and post-test by way of tracking. This objective was satisfied by way of a pre-test administered at the start of a 9-week experiment and a post-test at the end. Table 1 shows the mean and standard deviation of Kindergarten students' pre and post-test scores by way of tracking.

Table 1. *Mean and Standard Deviation of Experiment Groups' Pre and Post-Test Scores by Tracking.*

Experiment Group (n=30)	Mean	Standard Deviation	Interpretation
Pre-test	12.20	5.83	Fair
Post-test	116.37	25.02	Good

Table 1 displays the statistical analysis of the experiment groups' pre-test and post-test scores. The pre-test scores were Fair, and the post-test scores were Good.

### *Research Objective 2*

This research objective was to determine if there is a significant difference in Kindergarten students' levels of English achievement between pre-test and post-test by way of tracking. This objective was satisfied by way of paired samples *t*-tests. Table 2 displays the results for the experiment group by way of tracking.

Table 2  
*Paired Samples t-test of Experiment Group Pre-test and Post-test Scores by way of Tracking.*

Test	N	M	SD	Interpretation	Df	t	p
Pre-test	30	12.20	5.83	Fair	29	33.61	<.05
Post-Test	30	116.37	25.02	Good			

Table 11 exhibits the analysis of the experiment group, which was grouped in accordance with tracking. The table shows the statistical analysis of the pre-test (n=30, M=12.20, SD=5.83) and the statistical analysis of the post-test (n=30, M=116.37 SD=25.02). The comparison between the pre and post-tests recorded  $t(29) = 33.61$  and  $p < .05$ . According to the findings, there is a significant difference between Kindergarten students' levels of English achievement between pre-test and post-test by tracking.

#### *Research Objective 3*

This research objective was to determine Kindergarten students' levels of English achievement in pre-test and post-test by way of detracking. This objective was satisfied by way of a pre-test administered at the start of a 9-week experiment and a post-test at the end. Table 3 shows the mean and standard deviation of Kindergarten students' pre and post-test scores by way of tracking.

Table 3  
*Mean and Standard Deviation of Control Group Pre and Post-Test Scores by way of Detracking.*

Control Group (n=30)	Mean	Standard Deviation	Interpretation
Pre-Test	12.10	5.41	Fair
Post-Test	113.40	22.64	Good

Table 3 displays the statistical analysis of the control groups' pre-test and post-test scores. The pre-test scores were Fair, and the post-test scores were Good.

#### *Research Objective 4*

This research objective was to determine if there is a significant difference in Kindergarten students' levels of English achievement between pre-test and post-test by way of detracking. This objective was satisfied by way of paired samples *t*-tests. Table 4 displays the results for the experiment group by way of detracking.

Table 4  
*Paired Samples t-test of Control Group Pre-test and Post-test Scores by way of Detracking.*

Test	N	M	SD	Interpretation	Df	t	p
Pre-test	30	12.10	5.41	Fair	29	48.57	<.05
Post-Test	30	113.40	22.64	Good			

Table 4 exhibits the analysis of the control group, which was grouped in accordance with detracking. The table shows the analysis of the pre-test ( $n=30$ ,  $M=12.20$ ,  $SD=5.41$ ) and the analysis of the post-test ( $n=30$ ,  $M=113.40$ ,  $SD=22.64$ ). The comparison between the two tests recorded  $t(29) = 48.57$  and  $p < .05$ ). According to the findings, there is a significant difference between Kindergarten students' levels of English achievement between pre-test and post-test by way of detracking.

#### *Research Objective 5*

Research Objective 5 was to determine if there was a significant difference in gain of English achievement from the pre-test to the post-test between Kindergarten students grouped by way of tracking and those grouped by way of detracking. In order to satisfy this objective, an independent samples *t*-test analyzing the gains between pre-test and post-test in both groups was used. Table 5 displays the result of the independent samples *t*-test comparing Kindergarten students' difference in gain in between pre-test and post-test.

Table 5. *Independent Samples t-Test on Difference in Gain Difference between Pre and Post Tests by way of Tracking and Detracking.*

Group	N	Pre-test		Post-test		Gain		Df	t	P
		M	SD	M	SD	M	SD			
Experiment	30	12.20	5.83	116.37	25.02	28.60	22.77	58	.147	.088
Control	30	12.20	5.41	113.40	22.64	27.70	24.77			

Table 5 show that students in the experiment group in terms of gain ( $n = 30$ ,  $M = 28.60$ ,  $SD = 22.77$ ) and students in the control group in terms of gain ( $n = 30$ ,  $M = 27.70$ ,  $SD = 24.77$ ). The results of the independent samples *t*-test comparing gains between groups show  $t(58) = 0.147$ ,  $p = .088$ , which revealed no significant difference between the two groups in terms of gain in English achievement between pre-tests and post-tests by way of tracking and detracking.

## **Discussion**

The intent of this research was to investigate if placing students according to ability would facilitate learning more effectively than randomly grouping students. This teacher hypothesized placing students of similar ability in the same class would better facilitate learning than placing students without concern for individual ability in the same class. At the heart of this study resides the learning environment itself. Many contend an exclusive learning environment is rational, moral, and most effective, while others contend an inclusive learning environment is rational, moral, and effective. The principles of exclusion are applied in tracked schools and tracked classrooms, while the principles of inclusion are applied in detracked schools and classrooms. The argument over exclusion and inclusion in education has become heavily politicized.

There are numerous studies on exclusion versus inclusion in schooling, but this study appears to be the first to attempt such experimentation at the Kindergarten level. The main research hypothesis suspected tracking (exclusion) would prove more effective than detracking (inclusion), yet the data failed to support such a hypothesis. In this teacher's opinion, the fact that this paper failed to support the paper's driving hypothesis does not discredit tracking as pundits and other researchers might contend.

Numerous variables were never considered in this thesis, such as parental involvement. Although parents were well-aware of the thesis research, they were not asked to task in accordance with it. Parents' level of English proficiency among individual students clearly plays a role. Whether or not their parents are proficient in English, some students receive heavy dose of parental involvement, and others not so much. Other variables include English instruction outside of the school at one of the many language centers within close proximity to this campus. Enrollment in such centers is very common among Thai students of this age and in this socioeconomic demographic.

Another important variable includes the fact that Kindergarten 1/2, which served as the control group, had several hours of English instruction facilitated by another teacher. The learning objectives and assessments specific to this experiment were reserved for this teacher's one-hour-a-day lesson with Kindergarten 1/2. Outside of that one-hour-per-day, there is no way to account for what instruction they received simply by virtue of this teacher not being present; therefore, it is possible Kindergarten 1/2 may have received more instruction aimed at the learning objectives specific to this experiment which were meant to be reserved exclusively for this teacher's one hour one per day instruction. Such a possibility falls outside of this teacher's control or

knowledge. The only certainty is Kindergarten 1/1, which served as the experiment group receiving instruction specific to the learning objectives detailed in the full thesis for only one hour per day.

In previous chapters, this researcher and others such as Hillinan (2004) argued that exclusion reduces or eliminates the need for differentiation because students have similar abilities and needs in tracked classes. Slower students seem less able to internalize information with the same efficiency and overall ease as their gifted and talented counterparts, and therefore it is all but impossible to teach everyone without some form of differentiation. The learning objectives, timeframes, and resources were identical for every student subjected to this study, yet teaching methods between groups did vary especially teaching methods between gifted students and struggling students. Such variation, or rather a differentiation, was not only completely natural but oftentimes totally spontaneous. Such variations and differentiation in teaching methods cannot be quantified or qualified because no codified or clearly-defined teaching method or clear-cut or intentional differentiation techniques were employed, but rather a plethora of teaching methods along with on-the-run differentiation was employed. If anything, tracking seemed to better enable differentiation in ways detracking did not or perhaps could not. Certainly, one would expect these variations in the teaching methods and differentiation to be reflected in the outcome. Still, the overall result of the experiment yielded no significant difference in Kindergarten 1 students' respected levels of post-test achievement.

In a lot of ways, this experiment was designed to accommodate the needs of individual students within a collective setting. The overall hypothesis was that grouping students according to ability would narrow the spectrum of needs, thus making the environment itself more effective in accommodating individual needs. The final results showed the same relative improvement and same relative gain in academic achievement, but there was something about those tracked classes that made them more efficient and more enjoyable to teach. This teacher would argue class size was a considerable variable. The detracked group had 30 students in one room, while the tracked group was divided into three classes of 10. Again, this variable did not seem to generate significant differences in outcome, but it did make for more enjoyable and easier teaching, especially for the gifted and talented class.

The fact both groups excelled in terms of huge discrepancies between pre and post-test levels of achievement lends credence to the practice of enrolling kids at such an age, but not so much to tracking to detracking. It is this teacher's contention that kids are simply hardwired to learn such basic language skills.



Such a notion is certainly supported by Ramirez (2016), who argued young children and even babies should be exposed to multiple languages, and Zheng (2009), who contends there is something unique in the brains of young children as opposed to older children and especially adults which makes them far more efficient in acquiring language. Both Zheng (2009) and Birdsong (2009) conclude that language as an academic discipline is unlike any other and when it comes to language and only language, the earlier, the better. This researcher and others call to question the veracity of forcing such young children to contend with and conform to the rigors of formal education; according to Weller (2017), it is detrimental. Even with that considered, this researcher still contends it comes down to individual children. Some are ready at a very young age, and others simply are not. Although this experiment resulted in every student showing improvement in terms of English acquisition, some students may still be better off not enrolling in formal schooling at such a young age, in this teacher's opinion. While this researcher believes exposure to a foreign language can only do good, according to Weller (2017), demands of formal schooling can be detrimental to young children if imposed when the child is not ready.

Clarke, Dylon, & Millward (2003) contend that both inclusion and exclusion in education are not based strictly on education theory but rather from social and political theory. Therefore, linking tracking and detracking to a codified educational theory requires some liberties to be taken. This teacher argues the practice of intentionally excluding individuals in education is supported by Urie Bronfenbrenner's Ecological Systems Theory which contends individual characteristics of children and elements of their respective environments interact together and ultimately influence both children and the environment itself so; in other words; children directly impact the environment just as much as the environment directly impacts them (Bronfenbrenner, 1979). This teacher also links inclusion to Paulo Freire's Critical Pedagogy Theory, which advocates for people to be proactive in transforming society by identifying and eliminating oppression and exclusion (Freire, 1968).

The research into tracking versus detracking focuses mostly on secondary education. Many of the experiments which lend support for tracking were situations in which students were given a choice, while many of the studies in support of detracking were situations in which students were not given a choice. In this particular research, the students were neither informed nor given a choice as to which group they were placed in. Much of the criticism of exclusion comes from low-achieving students claiming to have been emotionally stigmatized over being excluded from the higher tracked environments. Kindergarteners simply do not concern themselves with such

perceptions. Unlike their secondary counterparts, these Kindergarten students either did not notice or simply did not care in which group they were placed in or why.

An interesting observation of this experiment supports Konza (2009), who argues that both on and off-task behaviors manifest in accordance with the nature of the learning environment. It is important to note the tracked students were only tracked for one hour per day. Only during his one-hour lesson, learning objectives specific to the post-test assessment were presented. Throughout this experiment, both the tracked and detracked students seemed interested and engaged during those hours reserved for the learning objectives specific to the full thesis. The two groups interacted with their respected environments in ways explained by Bronfenbrenner's EST. The detracked students seemed to perceive their hour with this teacher as being a special hour, and they behaved in ways their homeroom teacher did not witness during his instructional time. In short, they were more attentive during their hour with this instructor. At the same time, the tracked students, too, were more attentive during their tracked hour as opposed to other hours of the day. Both groups seemed to generate an atmosphere of competition in which all of them, only for that one particular hour, strived to be the best or the first but did not seem to care so much during other times of the day. The students seemed to perceive there was something more important about that particular hour of the day. This perception of importance undoubtedly contributed to the huge gains in their post-test achievement levels compared to their pre-test achievement.

With organizations such as UNESCO leading the charge the practice of inclusion in education is clearly winning over the practice of exclusion. The reasoning behind such emphasis on inclusion revolves around false virtue being placed upon diversity when the fact remains morality is objective, universal, and perennial and objectivity is by its very nature exclusive. This teacher believes forced inclusion is wholly unnatural, and therefore relationships and environments are best left to personal choice.

### **Conclusion**

The results of this study are very surprising. This teacher thought for sure tracking would prove far more effective than detracking. Students in both the experiment group and the control group demonstrated rapid improvement in terms of the learning objectives. Given that they were very similar at the start of the experiment in terms of pre-test scores and remained similar in terms of post-test scores, it gives credence to both tracking and detracking at the Kindergarten level. The final result shows no significant difference between

Kindergarten students' English achievement levels by tracking and detracking the at Chochai Hathairaj School.

One of the things this teacher took away from researching tracking and detracking, is at the primary level, tracking seems to be all about assessing students and providing specialized accommodations for specialized needs. At the secondary level, tracking seems to be all about providing students with choice. At both levels, tracking seems to be all about holding students to a standard. At the same time, detracking seems to stem from a flawed perception of right and wrong because exclusion and inclusion in and of themselves are not inherently good or bad. Based on critical assessment and sound reasoning, inclusion and exclusion can be wise policies depending on the situation. The key factors here are choice versus force because advocates of inclusion in education seek to force it upon others which is unnatural and immoral. When given a choice, human beings tend to associate with those of similar interests, needs, and dispositions, and such a claim is self-evident.

An important note is that the lowest-achieving students in the tracked environment did better than those in the detracked environment. This may be the result of being in a much smaller group setting which allowed the teacher to grant more individual attention and not necessarily because of tracking. It is important to note the students were subjected to a pre-test on the second and third days of school with a foreign teacher, a man no less who looked and spoke differently than what they are used to. Such considerations certainly attributed to the overall low scores on the pre-test; with such low scores, there was nowhere to go except up. Once the students got to know this teacher, anxieties were calmed, instruction became routine, and learning increased in efficiency for both groups. The huge difference between pre-tests and post-tests for both groups was of no surprise.

This researcher still holds tracking preferable over detracking, especially in terms of gifted and talented students, simply because gifted and talented students are easier to instruct. This teacher contends Kindergarten students are like sponges, and even the lowest-performing student often shows dramatic improvements over time. It is this teacher's contention that it is nearly impossible for any Kindergarten student with normal cognitive functions to not to show dramatic improvement early on, especially given the learning objectives were limited to counting to 20, the English alphabet, colors, shapes, and vocabulary related to items in and around classrooms and schools. Verbal commands and the speaking requirements of the learning objectives were limited to very basic sentences and phrases. Any student who fails to show improvement at the lowest level of cognition would certainly indicate a serious

cognitive deficiency, or so this teacher would suspect. None of the students demonstrated such deficiencies, so it was no surprise to see such dramatic increases in gains between pre-tests and post-test scores.

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