

***Gender Differences in Learning Behavior for Students  
with Special Needs***

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**Abstract**

The primary purposes of this study were to investigate the different performance on gender for students with special need in Taiwan. The research data was from 2010 special needs education longitudinal study (SNELS) in Taiwan. There were 1870 participants from SNELS 2010, totally 12 categories on disability, included mental disability, visual disability, hearing disability, speech and language impairment, physical disability, health Impairments, emotional or behavioral disorders, learning disability, multiple disabilities, autistic spectrum disorder, developmental delay and other significant handicaps.

The study analyzed the data by t-test, results suggest that the performances could be concluded in two parts, one is the performance of academic progress for students in this year, the other is the performance on behavior and learning situation in class, and described as below. 1. There are 8 items in the questionnaire on performance of academic progress for students in this year; zero item got the significant result. 2. There are 10 items in the questionnaire on performance on behavior and learning situation in class, 5 items got the significant results. Girls were significantly greater than boys in 5 items, included in pay attention and concentration in class, following teacher's directions, seating on the seat with quiet behavior, continuing to do one thing, collaborative working with other students.

This study support strategies on the class management, via interactive participant, redesign teaching materials, job analysis step by step, visual interface application, operating activity, verbal share and publication opportunity. This study provide learning strategies to enhance opportunities for boys /girls with different disabilities.

Keywords: special needs, gender, performance, disabilities, longitudinal study

## **1.Introduction**

Many differences between the behaviors of boys and girls. Generally, people consider that the development of girls are early in verbal skills, and of boys are in visual-spatial. And boys are more aggressive, girls more nurturing.

In view of so many differences between boys and girls, as they grew up, there were many different experiences and opportunities may lead to divergent outcomes or highlight existing differences. For the reason that, as students learned, teachers should thought girls and boys with different treatments or teaching methods.

In order to know what different between boys and girls with special need, we investigate the different performance on gender for students with special need in Taiwan.

## **2.Method**

### **2.1.Participants**

There were 1870 participants from SNELS 2010, totally 12 categories on disability, included mental disability(n=421,22.55%), visual disability(n=30,1.6%), hearing disability(n=130,7.0%), speech and language impairment(n=127,6.8%), physical disability(n=146,7.8%), health Impairments(n=119,6.4%), emotional or behavioral disorders(n=33,1.8%), learning disability(n=4,0.2%), multiple disabilities(n=284,15.2%), autistic spectrum disorder(n=289,15.5%), developmental delay(n=184,9.8%) and other significant handicaps(n=103,5.5%).

### **2.2 Questionnaire**

The research data was from 2010 special needs education longitudinal study(SNELS) in Taiwan. All questionnaires design as answer options according to the 4-point scale, the question using a 4 point Likert scale with 1 being “never” and 4 being “often”;3 “sometimes” and 4“often” were considered as positive responses, 2“seldom” and 1“never” were considered as negative responses. (Wind et al.,2013).

#### **2.2.1 Academic progress items**

The part of the performance of academic progress for students in this year could be divided in 8 items, just as below,  
5>.05;Communication skills, p=.963>.05;Interpersonal skills, p=786>.05;Emotional management capabilities p=.738>.05;the abilities on gross motor skills, p=.490>.05;the abilities on fine motor skill p=.093>.05.so this part of study could not explain the different between boys and girls.

#### **2.2.2 Behavior and learning situation items**

The part of the performance on behavior and learning situation in class could be divided in 10 items, just as below,

- (1) In pay attention and concentration in class.
- (2) Following teacher’s directions. (1)in the achievement in Chinese subject

- (2) In the achievement in math subject
- (3)Self-care ability
- (4)Communication skills
- (5)Interpersonal skills
- (6)Emotional management capabilities
- (7)the abilities on gross motor skills
- (8)the abilities on fine motor skills

Results suggest that the performances could be concluded in two parts, one is the performance of academic progress for students in this year, the other is the performance on behavior and learning situation in class, and described as below.

- (1)seating on the seat with quiet behavior.
- (2)participate in class discussion
- (3)ask question voluntarily
- (4)answer question
- (5)finish homework on time
- (6)work alone devotedly
- (7)continuing to do one thing until finish.
- (8)collaborative working with other students.

### **3.Results**

#### **3.1 The performance of academic progress for students in this year**

In all 8 questions, in the achievement in Chinese subject,  $p=.281>.05$ ;in the achievement in math subject,  $p=.852^{>.05}$ ;Self-care ability , $p=.79$ .

#### **3.2. The performance on behavior and learning situation in class**

**3.2.1. In paying attention and concentration in class**, girls( $mean=1.93$ ) are significantly better than boys( $mean=1.75$ ), $p=.000<.05$ , the meaning that girls do better than boys in pay attention and concentration in class.

**3.2.2. Following teacher's directions**, girls( $mean=2.42$ ) are significantly better than boys( $mean=2.26$ ), $p=.000<.05$ , the meaning that girls do better than boys in following teacher's directions in class.

**3.2.3. Quiet behavior**, girls( $mean=2.57$ ) are significantly better than boys( $mean=2.39$ ), $p=.000<.05$ , the meaning that girls do better than boys in seating on the seat with quiet behavior.

**3.2.4. Attention to one activity**, girls( $mean=1.84$ ) are significantly better than boys( $mean=1.74$ ), $p=.027<.05$ , the meaning that girls do better than boys in continuing to do one thing.

**3.2.5. Collaborative working with other students**, girls( $mean=1.81$ ) are significantly better than boys( $mean=1.68$ ), $p=.006<.05$ , the meaning that girls do better than boys in collaborative working with other students.

#### **4.Conclusion**

This study could conclude 5 parts from the results as below.,

- 1.In paying attention and concentration in class, girls performance are better than girls, when learning, girls are more absorbed than boys, so this study suggesting combining teaching materials and activities, let all the participants could operate procedure to enhance the learning motivation and attention for children with different disabilities.
2. Girls do better than boys in following teacher's directions in class, therefore recommended that teachers should use the manner of visual or critical statement, stressed the directions students should follow, so that each child could explicitly knowing the directions and Implementation it.
- 3.Girls could sat on seat more quietly than boys when learning, this study suggest that offer dynamic operating activity, verbal share and publication opportunity, to active and rich the course during static state class. And offer children both physical and sedentary activities learning process.
4. In continuing to do one thing, girls performance are significant better than boys, this study suggests that when the teachers design the teaching materials, must focus on visual design and job analysis step by step in the instruction. From the visual and clear instruction, children could understand the content, and children could adjust his/her learning speed from the learning schedule. From the records, they could understand their learning content and speed, so let all course process could be step by step and high achievement.
5. Girls do better than boys in collaborative working with other students. When teaching in progress in-group activities with other students, teachers should pay attention in male students, giving assistance timely, so that every child are able to participate in group activities.