

# Occupational Therapy for Children with Developmental Disabilities in Taiwan

Presented by :

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# Important Milestones of Rights and Care of Children with Special Needs in Taiwan

- Early 90s: advocacy by parent groups in establishing systematic referral network and resources for children with special needs
- Mid 90s: establishment of Child Assessment Centers and referral system
- Amendments of Regulations
  - The Special Education Act
  - People with Disabilities Protection Rights Act
  - The Protection of Children and Youths Welfare and Right Act
- Convention on the Rights of the Child( CRC)



# Statistics

- Approximately **26000** new reports of developmentally-delayed 0-6 yrs old children per year (2019-2121)
- Approximately **40000** children received EI services per year (2019-2121)
- **52143** children under 18yrs old received “disability card “.(2021)

(Source : Ministry of Health and Welfare)



# Statistics

- Numbers of students qualified for special education services

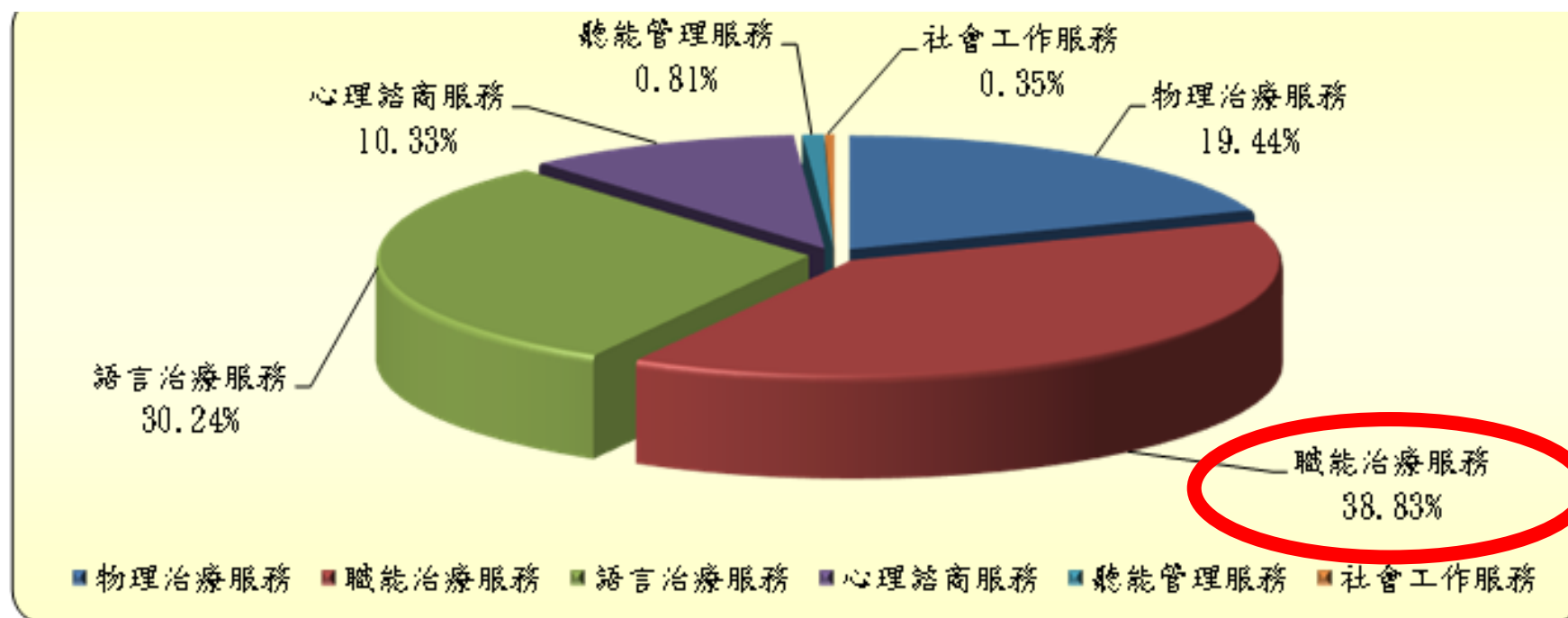
Year	Pre-school	Elementary	Junior High	Senior High	Total
2021	23936	46100	27301	24022	121359
2020	21385	43645	26986	24038	116054
2019	19664	41722	26748	24893	113027

(特殊教育年報, 2019-2021)



# Statistics

- Percentage of Related Service Provision in School System



(特殊教育年報, 2021)



# Areas of Pediatric OT Services in Taiwan Includes

- schools :regular schools and special schools
- medical facilities: hospitals and local clinics
- day care centers for children with special needs
- NGOs
- Private practice
- Academic facilities

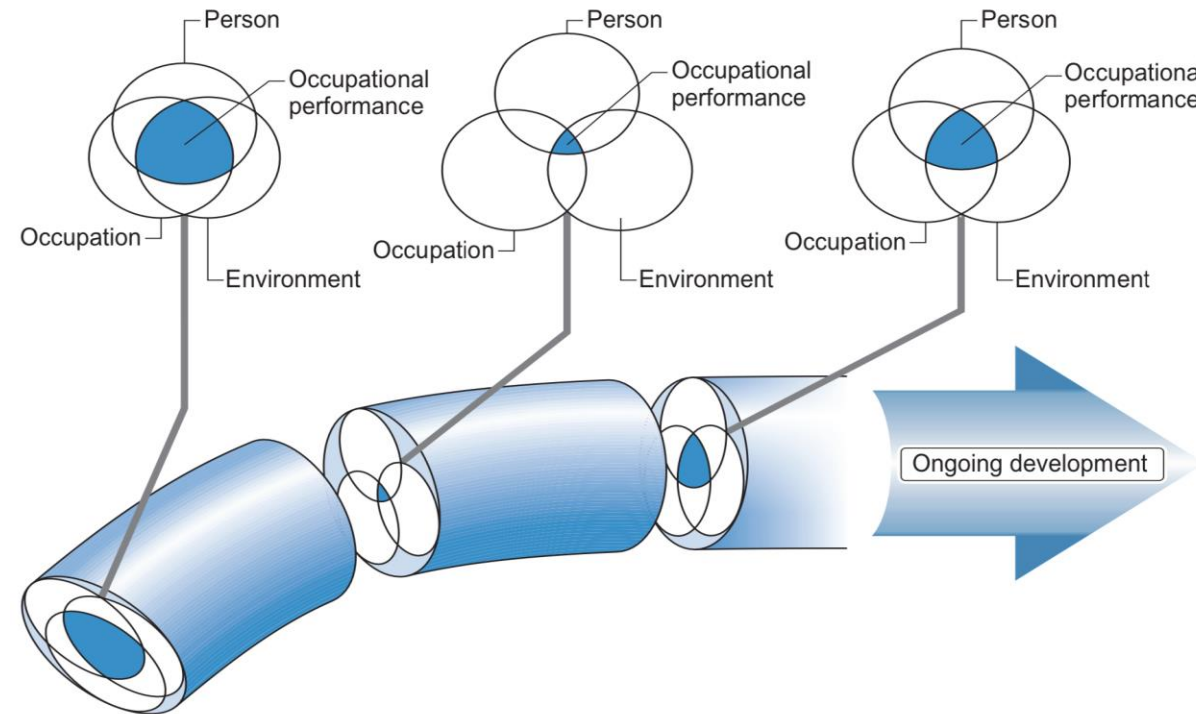


# Occupation based intervention

- Identify meaningful occupations with the child and his/ her family/teacher
- Promote participation in meaningful occupations
- Empower the caregiver/teachers to make decisions and carry them out
- Discover the strengths and acknowledge the weaknesses



# The P-E-O model



Law, M., Cooper, B., Strong, S., Stewart, D., Rigby, P., & Letts, L., The Person-Environment-Occupation Model: A Transactive Approach to Occupational Performance, Canadian Journal of Occupational Therapy (Volume: 63 issue: 1) pp. 9-23



# Experience Shared by OT Wu at Tainan Special School

- Many students study at the school from kindergarten until they are 18 yrs old.
- OT service content based on classroom teacher's needs (lunch time, arts and craft time, PE class).
- "The teacher have faith in me and is willing to give me feedback whether my ideas work or not, after working together for years, we have become partners who know each other very well".



# Experience Shared by OT at Tainan Special School

- “I have been constantly challenging myself to figure out ways for my kids to enjoy sports activities, like bike riding or ball games. I do all kinds of modification, but when you see the light in their eyes as they learn to pedal and ride down the hallway for the first time, it pays off ”
- “When they approach adulthood, we would explore possibilities of vocation, through activity adaptation we simplified the task and the child gradually realize that he could do his job”.

- (C. C. Wu, personal communication, 2022 )



























# Experience shared by OT from The First Social Welfare Foundation

- Background
  - one of the pioneers in providing day care services for preschool children with moderate or severe disabilities
  - Established the first assistive technology assessment in Taiwan in 1984
  - Started day care and counselling services for adults with moderate to severe disabilities



# Experience shared by OT from The First Social Welfare Foundation

- OT provides mainly indirect services (collaborate with classroom teachers ), providing suggestions in design of activities and individual goal setting.
- Provide transition services (school visits or phone communication)
- OT highly involves in the counselling of behavioral/ emotional problems, reducing stress and burden of caregivers
- Provide assessment of cortical visual resolution, esp to clients with CP



# Experience in the hospital I worked for

- Background
  - One of the country's first child assessment and intervention centers
  - Features collaboration of multiple professionals in intervention



# Experience in the hospital I worked for

- Group therapy co-led by 2 different professionals, e.g. OT+ST, each contributed its professional skills and knowledge; for instance, the little chef group
- OT Play groups aiming to expand child's play repertoire and promote play skills (play as goals rather than as means)
- Parent coaching (WHO-CST Program)-focusing on parenting skills, supplemented by home visits and phone communication



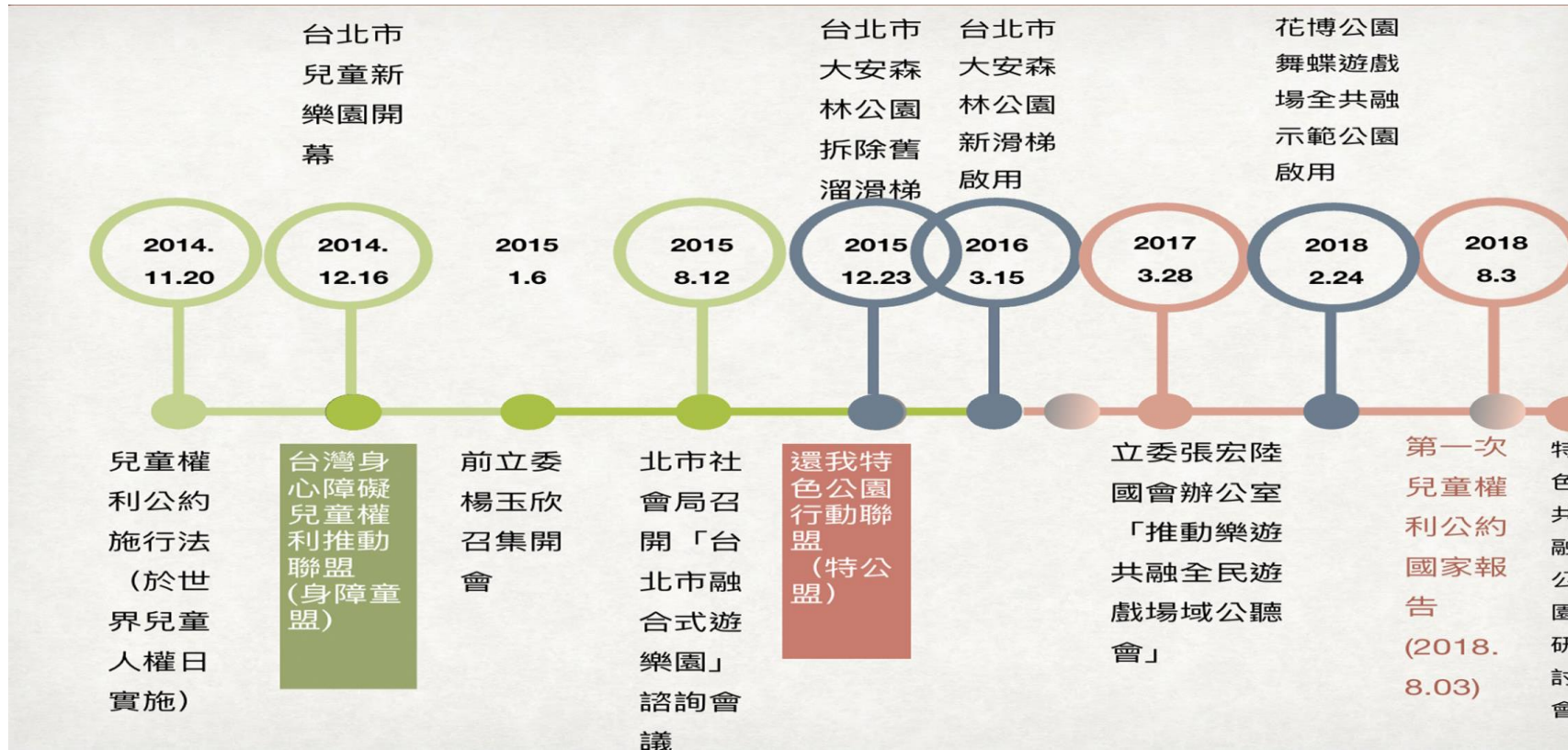
# Advocacy for Occupational Justice

- Advocating for inclusive playground and take part in the design of it
  - identify the public as well as private resources
  - Team up with other professionals and parent groups
  - Educate families about their rights and empower them
  - Promote public's understanding of inclusive playground
  - Resolve potential conflicts by inviting counterparts to participate
  - Stay tuned to updates of information about relevant regulations

(Fang Li Chen, personal communication, 2022.11)



# Advocacy for Occupational Justice



(by Fang Li Chen, 2022)





(Source: Department of Information and Tourism , Taipei City Government)



# Trends and Challenges in Clinical Practice

- Extension of practice into homes and communities
  - Self adjustment and communication skills
- Increased involvement of caregivers and families
  - Counselling and Coaching skills
- Advocacy for occupational justice
  - Understanding the community and policy making
- Proliferation of private practice
  - Legal risk
  - Knowledge and skills in management
- Development of telehealth in the future
  - Protection of Privacy
  - Familiarity with 3 C technologies



# Research in the Field of Pediatric OT includes

- Development for evidence based intervention program
- Development of assessment tools measuring theory of mind
- Assessment and intervention tools using virtual technologies
- Assessment tools using big data



# 兒童發展與實證療效：腦性麻痺孩童系列研究

## 神經復健方案

治療師模式

科技輔助模式  
虛擬實境介入方案

居家

夏令營



National Taiwan University  
Tien-Ni Wang & Hao Ling Chen, 2022



# 兒童發展與實證療效：視動與書寫系列研究

## 治療方案：字字不倦

### 學齡前準備方案

### 學齡治療方案



## 字字不倦：太空冒險營

National Taiwan University  
Tien-Ni Wang & Hao Ling Chen

### 兒童書寫促進方案

—台大職能治療學系研究團隊—

**這是什麼方案?**  
寫字是國小孩童很重要的技能，因此此方案是一個專門針對中文字的特性設計的視動整合、精細動作、視知覺等相關技巧訓練課程，讓孩子在遊戲中訓練到孩童寫字需要的技巧！

**誰可以參與此方案呢?**  
本方案將招募沒有書寫困難(如：字的大小不穩定、字的組合相反、字的比例不正確等)及特殊診斷(如：自閉症、注意力不足過動症等)的國小一、二年級孩童。

**這個方案的執行多久呢?**  
參與此方案需要進行12個小時的一對一訓練課程以及兩次的評估。

**課程時間及地點**  
時間：依報名順序安排課程時間  
地點：有合適桌椅的安靜空間

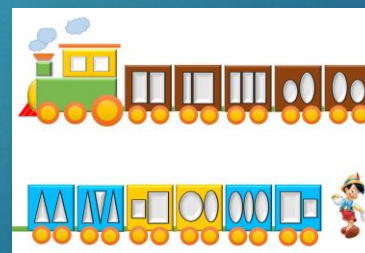
**參加條件**  
無書寫困難及特殊診斷的國小一、二年級孩童  
(可配合全部課程及兩次評估)

**課程特色**  
由職能治療師所開發之書寫準備方案，  
融合多樣素材(如球、黏土)之趣味活動、遊戲

心動不如馬上報名！

若有意願或想進一步了解請聯絡我們！

- 台大職能治療學系
- 鄭雅婷 職能治療師
- 電話：0975223545; 02-3366-8163
- 信箱：jungjungcheng@gmail.com



### 兒童書寫介入方案

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陳官琳 Kuan-Lin Chen

Associate Professor  
Department of Occupational Therapy  
National Cheng Kung University

## 兒童認知與職能參與實驗室

Children's Cognition, Occupation and Participation



### Assessment Refinement & Psychometrics

Development and refinement of  
pediatric assessments

Computerized Adaptive  
Testing (CAT)

Artificial Intelligence (AI)

### Cognition, Play, & Social interaction in Children with autism spectrum disorder (ASD)

Theory of mind

Executive function

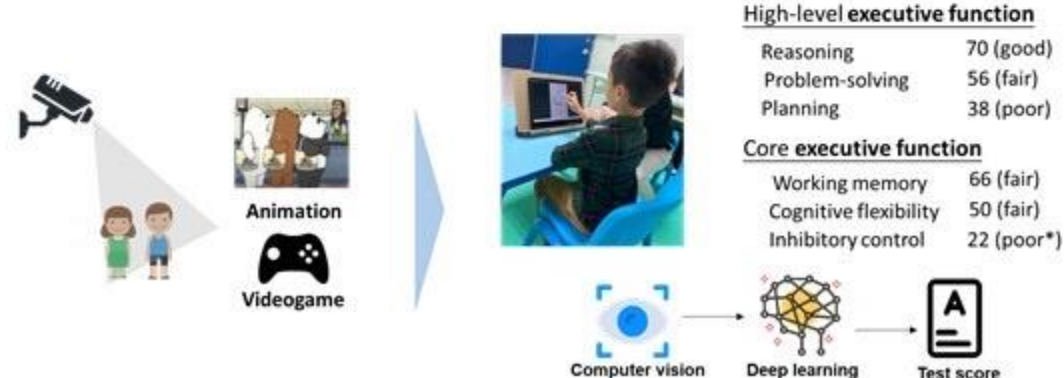
Pretend play

Social competence

### Theory of Mind Assessment (ToMA)



### Pediatric AI Assessment System







兒童發展評估實驗室

The Lab of Children's Development Evaluation



黃千瑀 Chien-Yu Huang

Associate Professor  
School of Occupational Therapy  
National Taiwan University



Pediatric Assessment  
Development & Refinement

- Computerized Adaptive Test
- Psychometric Properties

AI Assessments for child development



精細動作  
活動



粗大動作  
活動

The Platform of AI Assessment System

王O美家長，您好

\*孩童姓名：王O美  
\*孩童性別：女  
\*孩童出生日期：2017/05/01  
\*孩童生理年齡：4歲10月  
\*孩童疾病診斷：發展遲緩



著色畫

摺紙

仿畫人

請輸入拍攝日期 → 上傳3張不同角度的摺紙照片 → 點選[進行分析]

正上方



點我上傳照片  
或  
拖曳照片檔案到此處

正面



點我上傳照片  
或  
拖曳照片檔案到此處

背面



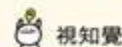
點我上傳照片  
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拖曳照片檔案到此處



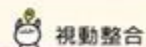
分析完成！

AI分析結果如下

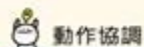
孩童預測年齡為 3歲11月



預測分數：84  
百分等級：14  
年齡當量：3歲9月



預測分數：81  
百分等級：10  
年齡當量：3歲11月



預測分數：82  
百分等級：12  
年齡當量：3歲10月



# Using VR Games in Daily Activities Training for Children with ASD

- Strengths
  - Generalization to real world
  - Individualized training
  - Repetitive practices
  - Graded sensory stimulation
  - Using strengths of visual and technological learning



Fu Jen Catholic University  
Chung-Pei Fu