2024 教育政策國際研討會 因材施教,成就每個孩子 一台灣優質教育的願景與發展策略 黃茂樹教授

美國北科羅拉多大學前首席副校長、美國西來大學前校長 主題演講題目:

勇於夢想, 勇於改變更要勇於執行

PPT 1

非常榮幸能夠來參加這次的國際研討會我的題目是 Dare to transform: fostering the talent in each child.這就是說要勇於夢想, 勇於改變更要勇於執行.

PPT 2

我的演講有 4 個重點

- 1. 如何去發現每一個孩子他們特有的才能
- 2. 如何去培養一個孩子的學習動機
- 3. 需要整個村子去培養一個孩子
- 4. 邁向下一個里程碑的道路

PPT 3

在我講這 4 部分之前我們先要了解一下因材施教,其中"材"的定義是什麼. 首先我採用了 Webster dictionary 的定義.

1. 它的解釋是說每一個人都擁有與生俱來的天賦才能,這個才能 經過後天的栽培,每個人就有能力去追尋他的目標或者是他的 夢想. 我又選擇了另一個定義是用 McKinsey and Company.

2. McKinsey and company 在美國是一個有名的諮詢公司,它的主要業務是為許多企業公司,機構甚至於運動界比如籃球和足球延攬有潛力的人才. 所以他們操作"才能"的定義是要比Webster dictionary 所講的要廣泛的多而且有實用性.他們認為一個人的才能包括了與生俱來的天賦智慧,知識,經驗,判斷能力,他們對別人及自己的態度,個性,還有積極向上的心等等.這些才能都能夠影響一個人是否能夠成功的重要因素.

PPT 4

"才能"有許多種說法及定義,經過梳理之后,我將'才能'分為兩大部分:

1. Natural talent:

- a. 天生我材必有用這就是我們生下來與生俱來的能力及天賦.
- b. 這種天賦包括了認知,推理,語言,閱讀,數理和其他藝術,音樂,運動,是多元性的性

也就是 Gardner 所倡導的 multiple intelligence.

PPT 5

2. Learned talent:

- a. 孩子出生以後,不是在真空的環境長大.每個孩子在不同環境 成長的過程中和不同的人相處而培養出來的能力.
- b. 這種能力包括對每一個人如何培養自己的興趣,和別人相處的時候的態度如何?對自己的態度又是如何? 他們的自律能力有多強? 他們的抗壓性如何? 他們有沒有決心去完成他們

的目標?在遇到困難時,他們有沒有毅力堅持下去.... 等等. 的人格特質.

PPT 6, 7

下面我介紹幾位國內外知名的人士,我相信大家都會認識他們.

PPT 8

這些名人當中除了他們與生俱來的天賦之外,他們擁有我在前面提到的共同 learned talent,對他們的興趣都有非常強烈的愛好.比如 Bill Gates 他寧可放棄哈佛大學的學位而堅持在他家的車庫裡面努力創作他的電腦軟體,終於成功的建立微軟公司. Bill Gates 的成功影響世界深遠.這一些成功人士都擁主動性,積極性和自律能力,而且也能夠建立良好的人際關係.在面對困難的時候他們有強烈的抗壓性,有堅強的毅力去追尋他的目標. 更重要的是他們注重倫理道德, 這些就是成功必備的條件.

PPT 9

所以我用了一張非常簡單的圖表告訴大家說如何從才能走向成功之路的 3 個重要因素,除了 natural talent 之外加上 learned talent 再加上從家庭,學校,和社會上的資源 support.

PPT 10

1. 如何去發現每一個孩子他們特有的才能

PPT 11

1. 每一個孩子都有他自己獨特的才能,可是不是每個人都可以看 見.父母親和老師們和孩子相處的時間最多,是最容易去發現他 們的優點及特長. 觀察是最好的方法去發現孩子們的才華,在 觀察時最重要的是要在不同的環境,時間以及不同的活動. 觀察的時候是要客觀而且要準確更重要的是要有耐心.

2. 最重要的是我們要接受一個完整的孩子,孩子們有優點也有缺點,如果我們只是著重在他們的缺點的話. 就好像說一個孩子他的數學不好,家長花錢花時間去補救他這方面的缺點.還不如家長培養小孩子的才能及長處,這樣就幫著他在生命中發光發亮.

PPT 12, 13,

下面我要放一個影片這個影片是告訴你觀察的重要性。你看到影片中的小孩在那邊畫畫請問你們對他的印象是什麼?大概你們心裡面都會講說這個孩子好像有一點過動而且也沒有什麼特別就在那邊塗鴉而已.是不是?那麼請大家稍微耐心一點.我再重新放一遍.你們會驚奇的發現他畫的是什麼.

PPT 14

下面我再放一個放另外一個 video.在影片中的男孩他是他的名字叫 Nobu. 他出生就是看不見.可是他的母親在他 2 歲的時候發現他對音樂非常有興趣而且有天分因此他他母親為他聘請了音樂老師去教他談鋼琴. 他雖然眼睛看不見可是他其他的聽覺以及觸覺是非常的敏捷可以彌補他眼睛看不見的缺憾.所以他的鋼琴老師用他的長處去幫助他克服視覺的缺陷, 他在 7 歲的時候就嶄露了他的音樂才華得到了鋼琴比賽的第一名.從此以後他名聲遠播.

PPT 15

2. 如何激發及栽培孩子們的學習動機

PPT 16

孩子自出生以後與生俱來就有好奇心,這個好奇心啟動了他的學習動機.努力學習的模仿他人的行為.在家裡人模仿家長或者他的兄弟姐妹,在學校就模仿老師跟同學,在社會裡面呢他就更多的選擇去學習.現在我讓大家看一個很短的視頻......

(孩子們的好奇心是為了學習奠定下基礎. 2007 年 Chouinard 的研究報告指出從實 14 個月到 5 歲的孩子平均每一個小時會問 107 個問題. 這個研究報告讓我們了解到好奇心對於學習的過程是有多重要. 可是 Engel 在 2015 年的研究報告當中指出自從孩子上學以後他們的好奇心急速下降,在小學的孩子在 2 個鐘頭之內只發問 5 個或者是更少的問題. 而到了五年級的時候在整堂課的時間幾乎都沒有人發問. 因此老師們在設計教學方案時如何設計課程去鼓勵學生們在課堂上發問問題, 引發他們的學習動機 及好奇心.

當好奇心和學習動機啟動了學習過程,學生們的努力卻是將它們轉 化為有形的結果.努力涉及學生為了實現他們的目標而投入的時間 和精力.學生投入學習的時間長短直接影響他們的成就和卓越性.在 這重要的學習過程中,學生的人格特質比如他的積極性,抗壓性,自 律性,有沒有下定決心和毅力完成他的目標都會影響到成功的重要 因素. Learned talent 在走向成功的過程中,有無比重要的地位.)

PPT 17

這個視頻是告訴你言教不如身教的最好例子孩子的模仿性實在太強大了.

PPT 18

這個人的名字叫 Jose. 他是美國第一個墨西哥裔的美國太空人. 他 出生在 migrant family. 他的家是在墨西哥. 每年春天就到美國的大 農業區裡面工作, 秋後就回墨西哥. 所以他只能在各個地方短期的上 學,直到二年級的時候他的老師觀察發現他讀書勤奮而且在數理方面有潛能,因此勸說家長留在美國固定的地方工作,可以讓他安定的上學.1972,Jose 在 10 歲的時候,他在電視中看到美國 Appllo17 的太空任務,給了他非常深刻的印象從此以後他立志要做太空人.很多人都認為他是癡心妄想,是件不可能的事情,但是他的父親卻肯定了他並且鼓勵他去追求他的夢想.大學畢業之後.經過 12 年申請參加太空署的太空人訓練計畫,被拒絕了 11 次,當他幾乎要放棄的時候,他的夫人鼓勵他說"太空總署可以否決你,取消你的資格,可是你自己不能夠否決你自己".他堅定不移的精神,再接再厲努力,終於在2004 年,他被太空總署接受.在2009 年成為美國第一個墨西哥裔的美籍太空人.他的決心和堅毅的信心支持他完成了他的心願.

PPT 19

這就是 "Grant 在 2023 年的一本書 Hidden Talent 中講到"假如一個人的 natural talent 奠定了一個人的出發點,那麼 learned talents 決定他能夠走多遠."

PPT 20

除此之外,請大家要千萬記住一個人的天賦再好,如果沒有努力的話,這個天賦就等於是沒有被發現的寶藏,白白的被浪費掉了.

PPT 21

下一個我們要重新來確定成功的定義,在傳統的觀念當中一般對成功的認知,是著重在學校的成績及學歷.可是有學歷並不代表並有能力.因此成功的定義應該更加廣泛一些,主要是根據一個孩子的優點和他的興趣而定.前面我們看到的麵包師傅吳寶春的成功例子就是一個很好的個案.英雄不怕出身低,只要努力去追求夢想,就能行行出狀元.

PPT 22

3. 要用整個村子去培養一個孩子

PPT 23

非洲有一句諺語說需要一個村莊來培養一個孩子.這句話提醒了我們,只有父母,學校和社會共同承擔養育栽培的責任,孩子才能發揮最大的潛能. Reuport 等人在 2022 年的研究報告中提到一個村莊的核心是家庭,家庭是隱性課程開始的地方,孩子們在正式上學之前,學到了一些人生中最重要的價值觀以及做人做事的基本責任.我們常常會聽到人們稱讚說某某小孩子的家教非常好這就是隱形課程學習內成果. 所以孩子的教育不僅限於在學校,家長的參與是影響孩子未來成就非常重要的關鍵.

至於社會它為我們提供了一個豐富的資源中心. 老師和家長們把孩子帶入一個真實的世界,讓他們學到與學校不同的經驗. 在美國的University of Minnesota 就設立了一個社區與大學的學習中心,做得非常有聲有色.

PPT 24

現在我們來看看臺灣的一個例子.

我相信臺灣有很多人知道江璟亮. 他是臺灣的驕傲. 在 13 歲的時候就拿到了美國 NYU 大學入學許可證. 他的母親從小就發現了他卓越的天賦, 認為他不適合在一般的公立學校上學, 決定讓他在家學習. 母親成功的運用了社會上所有的資源去協助他發展他的潛力. 比如說他在小學去選一些他所喜愛的課程並且參加一些學校的課外活動, 所以他可以跟他的朋友保持聯繫. 他喜歡讀書, 他的家人和朋友送他他所需要的書籍去滿足他閱讀的渴望, 當他在唸書時有解決不

了的問題時,他主動的會向大學教授和專家去請教.他喜歡彈琴他的母親還特地從大學聘請了一位音樂老師教他彈鋼琴和小提琴.更有社會上的 2 個基金會全額贊助他到 NYU 學習. 他的故事是 It takes a village to raise A child 的最好例子.

PPT 25

4. 邁向下一個里程碑:機會與挑戰

PPT 26

從 1950 年代開始,臺灣就建立優良的教育制度,為了我們國家培養 出許多傑出的人才.造就了多年來的臺灣經濟奇跡. 但是時代在變化, 科技日新月異,我們要百尺竿頭更進一步邁入下一個里程碑. 在這個 關鍵時刻我們有有哪些事情是值得我們去思考,改進及轉型,我在這 裡有 3 點想法和各位分享:

- 1. 提早為所有的孩子培養他們的才能
- 2. 提供高中畢業後升學或是就業的多種選擇
- 3. 探討學牛心理健康問題

PPT 27

1. 提早為所有的孩子培養他們的才能

要做到提早為所有的孩子培養他們的才能,最直接簡單的方法,是將幼稚園教育,納入義務教育系統。我知道目前在臺灣的一部分小學裡面已經有設置幼稚園可是名額名額很少.假如將幼稚園納入義務教育系統之內,不但會提升老師的質量而且受聘的老師有公務人員的保障可以減少老師的離職率.對於幼稚園的學生而言,會受到統一

的課程教學.對於偏遠地地區以及窮苦的學生來說更是政府的一項 德政。研究報告中指出投資幼兒教育是可以為兒童和社會提供長期 的利益超過我們的短期投資成本.我認為投資教育事業就像投資股 票的績優股只漲不跌.聯合國國際文教處 2023 年的報告中指出全世 界有 47 個國家呢已經把幼稚園教育納入義務教育的制度裡面,我想 臺灣在不久的將來會走完最後一里路,把幼稚園納入義務教育.

PPT 28

Chetty 等學者在 2011 年的研究報告中,在 11,571 個兒童年齡在 5歲到 8歲之間,分別在 79 所學校.除了基本課程之外,如果學生能夠學到 learned talents,發現他們在 27歲時,這些學生將擁有比較好的職業,美滿的家庭,還有更好的收入.

PPT 29

另外我要介紹一本在美國非常暢銷的書籍,書名是 All I really need to know I learned in Kindergarten.作者 Robert 描述了在早期課程中除了學業之外更重視培養小孩子的 learned talents.

PPT 30

2. 提供高中畢業後升學或就業的多種選擇:

我在這裡跟各位分享美國社區學院在這方面所扮演的角色. 我知道臺灣目前有很多社區大學的存在,可是臺灣的社區大學的功能和美國的社區學院的功能是不太相同,我現在說明美國社區學院的主要功能.

- 1. 美國的社區學院是美國高等教育系統的一部分. 大部分是公立的而臺灣的社區大學大部分是私立的.
- 2. 社區學院可以授予 Associate degree 並提供各種職業證照訓練課程,採取寬進嚴出控制品質的制度.
- 3. 美國的社區學院是把教育系統跟職業系統並在一起.高中畢業生想要進修升學就可以到先到社區學院進攻讀 Associate degree, 畢業以後再轉到 4 年制的大學. 如果高中畢業生選擇就業的話, 就可以選擇職業證照訓練課程. 另外對一些已經取得學位的人如果他在職場就業之後發現不是他的興趣所在,他可以再回流到社區學院重新選擇不同的職業證照訓練課程.
- 4. 為什麼很多美國高中畢業生都先選擇去上社區學院呢? 因為它 靠近家裡比較近而且學費很便宜,在田納西州高中畢業直接去 社區學院是免學費的.
- 5. 下面給你分享上個月才出版的 Tennessee 社區學院的 10 年研究報告,假如你有興趣的話,可以上網閱讀.

PPT 31

下面提供 2023 年度加州高等教育 3 個系統的年度報告. 加州有 116 社區學院有 190 萬學生; 23 所州立大學 CSU, 提供學士跟碩士的課程有 50 萬學生; 11 所研究型的大學 UC, 有 29.5 萬學生. 從以上的資料看到差不多有 72%的加州高等教育系統的學生在社區學院裡面修課. 17%的學生進到 CSU 制度裡面. 只有 11%到研究型的大學.

PPT 32

3. 解決心理健康問題

目前全球都存在影響學生心理健康的危機.如霸凌,嗑藥,沉迷於網路遊戲,再加上父母親對子女過高的期望,使學生產生焦慮症和憂鬱症.心理健康問題是很敏感的,避免去面對這個挑戰,會產生嚴重的不良效應,例如影響他們的學業成績,進一步導致未來出現更嚴重的情況.我知道目前臺灣也開始重視這個問題,臺灣除了在各個學校有輔導老師之外,並且提倡了高中生有3天的心理健康假期,大學有5天的假期等等.為了面對學生心理健康的問題和挑戰,我介紹美國实施的 three-step approach (3 個步驟的介入方法):

- 1. 第一步是早期篩檢,幫助家長和老師識別心理健康問題的跡象,以便在問題擴大或者是變壞之前,就預防或解決者這個問題.
- 2. 第二步是預防性教育,因為可以幫助學生,老師,和家庭提供必要的知識和方法去處理心理健康問題,幫助他們增加(建立)抗壓能力,和提升情緒穩定. 比如提供 social emotional learning 的課程教學活動. 哈佛大學發展了完整的 SEL Model.
- 3. 第三步是建立心理健康治療方案,向有比較嚴重的個案(需要的學生)提供專業團隊的支持,確保他們得到妥善的照顧.

PPT 33

每一個人的才能是一份寶貴的禮物,具有改變他個人,社會和整個世界的潛力."所以"我們要栽培各種不同的才能,為人類創造更光明的未來.我希望在這次會議上鼓勵更進一步的研究,實施創新的理念,在面對挑戰時,大家能互相合作,研發解決方案,去成就每一个孩子.

謝謝大家並預祝大會成功!!!!

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DARE TO TRANSFORM:

Fostering the Talent in Each Child

Allen M. Huang

Recent innovations in technology and the years of the pandemic have highlighted the importance of preparing young individuals for their future in a new way. We must continue to reflect on and transform the educational process based on the latest research on talent and skill development. Having spent numerous years working in the education sector in Taiwan and the United States, I am eager to impart my insights and knowledge to advocate for improved education for the next generation.

For this presentation, I will address four themes in fostering talent in all children: 1) uncovering a child's unique talent, 2) fostering a child's desire to learn, and 3) embracing the principle that "it takes a whole village to raise a child." Using these themes, we must strive to implement targeted strategies ensuring that every child receives personalized guidance and encouragement tailored to their needs and potential. Lastly, this presentation includes an overview of challenges and opportunities for charting pathways to new heights for all learners in Taiwan's educational system.

Defining Talent

There are multiple definitions of talent which illustrate the complexity of this concept. In response to diverse definitions, I aim to present a reconceptualized model of talent, which synthesizes the existing literature to offer a more comprehensive understanding. Talent is comprised of two separate components: natural talents and learned talents, both of which are important to individual achievement. A third component, support, is necessary to bring talents to fruition. Figure 1 describes how the interrelated components of talent can be transformed into achievement.

Figure 1 From Talent to Success



Each individual is born with a unique constellation of natural talent across various domains. For instance, a child who creates intricate and imaginative drawings or sculptures may possess an innate talent for visual arts. Likewise, a child who easily learns to play musical instruments or creates original songs may have a natural talent for music. This broader perspective, supported by Gardner (1983) and Goleman (1995), emphasizes that natural talent should be defined not just by traditional academic performance but by recognizing and valuing a diverse range of abilities.

In addition to natural talent, learned talent is indispensable. Learned talent encompasses a passion for one's interests, strong interpersonal skills, a positive attitude toward oneself and others, self-discipline, resilience, perseverance, and a determination to achieve (Duckworth, 2015; Dweck, 2006; Grant, 2023; Robson, 2022). Talents are built and improved over time through everyday experiences with people and the world around us. As children face different situations and challenges, they learn how to handle social interactions, manage their feelings, and keep going when things get tough. Success comes from blending natural talent with learned talent and the right support.

Vignette #1

Michael Jordan, a five-time MVP player, suffered multiple rejections such as being cut from his high school varsity team. With encouragement from his mother and his coach, he remained committed to basketball and practiced relentlessly to refine his skills. The following year, he was rewarded when he made the varsity team. Afterwards, Michael earned a spot on the team at the University of North Carolina and was selected by the Chicago Bulls who went on to win six NBA championships. His story exemplifies the power of the combination of natural and learned talents plus support in achieving extraordinary success.

Uncovering A Child's Unique Natural Talents

There is a widely shared vision of talent that is strongly associated with school achievement, but this narrow view overlooks the diverse ways in which children can excel. Some natural talents are readily apparent. Others are hidden and require discovery and development.

At home, the parent is the first and most important teacher, guiding children through their earliest experiences. When parents create a safe and supportive environment where children feel free to explore and express their interests without fear of judgment or failure; therefore, children are more likely to develop confidence and pursue their passions (Engel, 2015). Parents are in a prime position to observe their child's behaviors closely through daily interactions. These observations should be objective, accurate, and take place across various settings and environments. By paying attention to their child's natural inclinations

and unique temperamental characteristics, parents can identify emerging interests and aspirations. This thorough understanding enables parents to provide targeted encouragement and resources that align with their child's unique talents.

Vignette #2

Nobuyuki Tsujii was born blind due to microphthalmia. His mother discovered his musical interest and talent at the age of 2 when she noticed his fascination with music. She observed him frequently playing with a toy piano, attempting to replicate the melodies he heard around him. Recognizing Nobuyuki had a keen ear and natural ability to reproduce music, she provided opportunities for him to explore and develop his musical skills. Nobuyuki's mother's role in recognizing and nurturing his abilities was vital, allowing him to leverage his strengths and achieve success as a renowned pianist. (Rosen, 2014)

Vignette #3

Leslie was a good student throughout high school and was determined to get into medical school. She applied to an Ivy League university and majored in Biology for her undergraduate degree. In the first year, Leslie had difficulty with her general education classes as well as courses in her major. After talking with her parents, she decided to transfer to a local university and to "start over." However, she continued to struggle in her major classes and unfortunately, her academic achievements were still not competitive enough to gain admission to medical school. Leslie was crushed and her parents tried desperately to help her with an alternative professional plan. In their review of her transcript, they discovered that she received high marks in her psychology courses. Therefore, they asked her to consider applying for a master's degree in clinical psychology. Leslie was resistant to the idea, but she agreed to this "detour" while she re-applied for medical school. She began to excel in her coursework and was offered scholarships and a prestigious internship that allowed to her secure an admission spot for a doctoral program in clinical psychology. Leslie's parents were able to provide guidance at critical turning points, setting her on a path to a better professional future.

Teachers and other education related professionals must also work diligently to recognize and nurture the talents of children. Their observations in a structured learning environment provide valuable insights into each child's abilities and potential. This

perspective can reveal strengths, weaknesses, and interests that may not be apparent at home.

Several strategies can help teachers identify and nurture hidden talents in their students. Feldhusen (1996) suggested that teachers should be alert to the signs of students' strengths, interests, aptitudes, and learning styles in all areas, such as academic, artistic, and interpersonal domains. Structuring learning activities in music, art, creative writing, and/or social interactions may highlight strengths that may not be evident in typical academic assignments. Recognizing and praising students' talents can enhance their self-esteem, confidence, and motivation (Schunk, 1991). Through extracurricular activities, advanced placement courses, and specialized programs, teachers can provide avenues for students to pursue their interests and hone their skills.

Parents and teachers should carefully observe, realize, and accept each child's natural talents to set realistic expectations through each stage of development (Robson, 2022). Waters (2017) further advocated that "Attention on the negative helps child survive. Attention on the positive helps child thrive." Despite this insight, there is unfortunately a tendency for parents and teachers to use a deficit model to remediate a child's weaknesses (e.g., cram schools). Thus, it is equally important that parents and teachers are patient and avoid imposing their own traditional notions of success, which can result in missing the opportunity to uncover a child's unique talents or unintentionally stifling a child's unique abilities.

Fostering the Child's Desire to Learn

The desire to learn is a multifaceted process deeply rooted in the interplay of curiosity, motivation, and effort (Robson, 2022), all of which are nurtured through interactions with people and the environment. Curiosity sparks the child's desire to explore and ask questions (Engle, 2015), while children's motivation fuels the drive to pursue their interests (Ryan & Deci, 2000). Friedman (2007) observed that the interplay of curiosity and motivation can be more influential than intelligence in achieving success. Effort is the final element that turns curiosity and motivation into tangible accomplishments.

Curiosity sets the stage for learning. This idea is supported by Chouinard's (2007) research, which highlights how children's questions are a fundamental expression of their curiosity to learn about things they have yet to experience. Her study found that children from 14 months to five years of age asked an average of 107 questions per hour. This remarkable frequency demonstrates how curiosity plays in the learning process, allowing children to delve into both concrete and abstract concepts beyond their immediate experiences. However, Engel (2015) found that questioning and therefore, curiosity, declines sharply once children start school, with the youngest students in elementary

school asking five or less questions in a two-hour period, and fifth graders sometimes going entire periods without asking any questions at all.

Creating an environment where questions are encouraged and valued is of the utmost importance. At home, parents should have open-ended conversations and provide opportunities for exploration as ways for children to pursue their curiosity. Simple activities like reading, exploring nature, and doing creative projects together can inspire a love of discovery and drive children to immerse themselves deeply in various subjects. Engel (2015) reported that although curiosity has not been a priority in the educational system, teachers can cultivate curiosity in the classroom by designing lessons that are inquiry-based and the student centered. Additionally, both parents and teachers should model curiosity themselves by demonstrating a love for learning and showing enthusiasm for discovering new information.

Motivation follows curiosity and drives a child's determination to improve understanding and reach educational goals. There are two types of motivation, intrinsic and extrinsic, each serving a different purpose in the learning process. Grant (2023) stated that for those who are genuinely interested, or possess intrinsic motivation, in a subject will have higher achievement. Conversely, extrinsic motivation, driven by rewards such as stickers or awards, usually only works in the short term. While external rewards can initially capture student interest, they often steer focus away from the internal worth of learning (Kohn, 1993).

This does not mean that parents and teachers should completely eliminate external incentives. Initially, such rewards can be useful for generating interest and engagement. However, the goal is to shift children from relying on these external rewards to developing intrinsic motivation with adequate resources and support (Ferlazzo, 2023; Bourton et al., 2006; Wehe et al., 2015; Ryan & Deci, 2017). To avoid dependence on external rewards, parents and teachers should direct their efforts into creating a positive and engaging learning environment and recognizing effort and documenting progress, rather than just outcomes. They can also help children learn resilience and perseverance through practical experiences in the home, school, and community (Kamins & Dweck, 1999; Robins & Pals, 2002).

While curiosity and motivation initiate the learning process, it is a deliberate effort led by the child that transforms these qualities into tangible results. Effort is the amount of time and energy that students dedicate in reaching their goals (Carbonaro, 2005). The depth and quality of children's accomplishments are directly impacted by time they spend on their learning task. The focus should be on the quality of time spent, which is determined by how efficiently it is used, rather than the amount of time (Ericsson et al., 1993). Parents can arrange short, focused study sessions to promote learning efficiency. This approach is more effective than extended periods of disengaged or inattentive work.

High-quality effort involves actively engaging with the subject matter, striving for understanding rather than relying solely on rote memorization (Hattie & Yates, 2014; Pintrich, 2004). In school, teachers can provide feedback that highlights effort and persistence. This method promotes a mindset of growth, motivating students to see challenges as important chances for development (Dweck, 2006). Sustained, meaningful engagement with learning materials is crucial for students to develop deeper knowledge and advanced skills (Duckworth & Seligman, 2005; Ericsson et al., 2007).

Vignette #4

José Hernández spent much of his early years working in the fields with his migrant family. He dreamt of becoming an astronaut after watching the Apollo 17 mission on TV. Despite inconsistent schooling and learning English in middle school, José's aspirations never changed. His dedication was noticed by his second-grade teacher, who saw his potential and enthusiasm. She played a crucial role by advocating for his family to stabilize their situation and settle in Stockton, California. This stability enabled him to benefit from consistent educational support and resources, which were instrumental in his pursuit of his space exploration dream. In 2004, José was finally admitted into NASA's Astronaut Candidate Training Program after facing 12 years of rejections. He completed his training and journeyed into space on the STS 128 shuttle mission in 2009. His success in achieving this goal highlights his resilience and determination.

As the saying goes, "Talent sets the floor, but character determines the ceiling" (Grant, 2023, p. 203). A common misconception is that natural ability alone leads to success. In reality, while natural talents are an important starting point, it is the synergy of curiosity, motivation, and effort that truly determines how far these talents can develop. This combination transforms these qualities from static gifts into dynamic forces, capable of being cultivated and expanded to achieve the highest possible accomplishments.

It Takes a Village to Raise a Child

Children grow within complex, interconnected systems that shape their development. The African proverb, "It takes a village to raise a child," reminds us that children can only achieve their full potential if the responsibility is shared among parents, schools, and communities.

At the heart of this village is the family, which provides the foundational environment crucial for a child's success (Reupert et al., 2022). The home is where the hidden curriculum begins—the informal lessons, values, and social expectations that children

learn outside of the formal academic curriculum, often unconsciously (The Glossary of Educational Reform, 2015). The famous proverb, '言教不如身教,' reminds us of that teaching through modeling is far more powerful than teaching with words. This hidden curriculum, absorbed in the early years, lays the groundwork for a child's future growth and influences their ability to thrive in the broader community.

Families and schools should form strong partnerships to provide consistent encouragement and resources in both settings (Moon & Brighton, 2008). Teachers and parents need to regularly share important details about a child's progress with each other. Building upon the fundamental skills acquired at home, the school should further develop students' language abilities in listening, speaking, reading, and writing. This expansion of knowledge strengthens their foundation and improves their critical thinking and communication skills necessary for ongoing academic and personal development. Students can gain valuable skills through the school's hidden curriculum, which also significantly promotes social and emotional learning through daily interactions (Maynard et al., 2022). Thus, it is highly recommended for schools to integrate both academic content and social-emotional skills, or emotional intelligence (Goleman, 1995) to prepare students for success in all areas of life.

While home and school are frequently researched in the literature on student learning, the role of the community is often overlooked. The community serves as a rich resource that parents and teachers can access for projects, tasks, and assignments and connecting children to real-world experiences. Community-Engaged Learning is designed to expand students' practical experiences beyond the home and the classroom (Kuh, 2008). This area has been one of intense interest in the last decade and institutions such as the University of Minnesota established the Center of Community-Engaged Learning to meet this demand. Wyman (2017) offers several strategies for leveraging community resources effectively: inviting professionals or experts to speak to students or participate in their projects, organizing shadowing opportunities for students to observe their dream professions, and hosting workshops led by professionals to teach new skills. Furthermore, using the community as a classroom—through field trips, visits to nature centers, or museum tours—and accessing community equipment, space, and personnel can greatly enhance the learning experience.

Vignette #5

Chiang Ching-liang (江璟亮) or Logan is a Taiwanese child prodigy who was recognized as a MENSA member at age 7. He was admitted to NYU with a double major in Neuroscience and music at age 13. His mother, a music teacher, recognized her son's unique natural talents very early and successfully utilized resources from various levels including family, schools,

universities, and community to provide Logan with timely support. She homeschooled Logan; however, she appealed to the local elementary school to allow him to attend school for elective classes (e.g., physical education, art, music) and participating in social events and other outdoor activities only. Logan was a voracious reader and exhibited an insatiable thirst for knowledge, so friends of the family loaned him books on diverse subjects, including American literature, history, science, and mathematics. Logan and his mother are deeply grateful for the extensive support and guidance provided by numerous volunteer mentors and experts from communities and local universities. He also received a substantial donation from two private endowment organizations to fund his attendance at NYU, reflecting the strong community support for his education. Logan is a true-life story about taking a village to educate a child.

Supporting children's success involves the collective efforts of individuals across home, school, and community settings, with each system contributing uniquely to their development. However, traditional approaches are often siloed, potentially hindering children's progress and learning. By promoting collaboration among families, schools, community organizations, and agencies, we can establish a more cohesive and efficient system of support so that children can access resources and guidance needed to thrive.

Charting Pathways to New Heights

Taiwan has had a robust and quality educational system since the early 1960s. However, we must transform our mindsets and approaches to create new paths and reach new heights. In our pursuit of unlocking each child's potential and advancing educational outcomes, I would like to offer three recommendations:

1. Cultivating Talent Earlier. Early childhood education offers a supportive environment to jumpstart the development of a child's talents. At this formative stage, children's natural curiosity can be readily harnessed. An environment of exploration can stimulate innate interests and set the stage for future talent development. Early childhood education builds a solid base in language, literacy, and problem-solving, which paves the way for the growth of more advanced skills in the future.

In his book, *All I Really Need to Know I Learned in Kindergarten* (1986), Robert Fulghum describes the importance of early lessons like fairness, responsibility, and balance in life. Research by Chetty and colleagues (2011) reinforced this by showing that 11,571 children who attended kindergarten in 79 schools developed emotional intelligence qualities like self-discipline, determination,

and strong interpersonal skills. These qualities proved to be more significant predictors of future success at age 27, including academic achievement, social and emotional well-being, long-term earnings, and overall health.

UNESCO (2023) reported that 46 countries provide free and compulsory kindergarten for all five-year-old children. I propose that Taiwan should implement a similar policy to invest in the future of our children. Offering high quality kindergarten programs to every child, regardless of their social or economic circumstances, fosters equity and inclusion. These children will grow to make positive and meaningful impacts on both their communities and our nation.

2. Provide Multiple Postsecondary Options. Since the late 1990s, there has been a proliferation of new higher education institutions in Taiwan coupled with a dwindling student population over time. Institutions vie with one another to enroll enough students to remain viable. The Department of Education has brought stakeholders to work together on strategies to mitigate the negative impacts of this persistent crisis in higher education. The task force was also charged with pursuing the long-term sustainability and excellence of Taiwan's higher education system. Despite some progress, additional reform may be required to ensure that colleges and universities align with evolving market needs and national goals.

Traditional degree granting programs are the main route for advancement of the current higher education system in Taiwan. In many instances, a degree is not an assurance of competence. Therefore, we need to consider non-degree postsecondary education options to accommodate the diverse interests and talents of individuals. For example, community colleges are embedded as a part of the higher education system in the United States. Post-secondary students can select from a range of job-training certificate programs based at the local community college. This allows individuals to begin or change to a different career pathway. Community colleges can also provide students with an opportunity to be enrolled in a traditional first two-year general educational program (associate degree) for future seamless transition to a four-year degree granting institution. This flexibility allows individuals to pursue their interests and continue their growth in ways that align with their unique talents. Finally, the community colleges have quality control measures in place for program completion. Moreover, integrating training programs offered by the Labor or

other departments with the educational system can also streamline the path to career readiness. These efforts would foster a more dynamic educational environment, benefiting both students and institutions alike.

3. **Mental Health.** There is a mental health crisis impacting children worldwide (Abrams, 2023) with alarming increases in anxiety and depression (Barica et al., 2021). Mental health often carries a stigma (Mukulo et al., 2010), causing many to avoid discussing it due to discomfort. This issue is also evident in Taiwan (Cheung, 2018). However, neglecting students' mental health can have significant repercussions because it negatively impacts their academic performance and leads to more severe problems in the future (Agnafors et al., 2021).

To effectively address and prevent mental health challenges among children in Taiwan, a three-step approach can be effectively implemented in school settings (Kilgus et al., 2015). First, early screening enables parents and educators to identify mental health signs promptly, allowing them to address concerns before they begin or worsen. Second, providing educational resources focused on prevention is essential in empowering students, teachers, and families with the necessary tools to handle stress, cultivate resilience, and enhance emotional health. Last, offering specific intervention and counseling resources to students in need, guaranteeing they get the proper care and guidance to conquer their obstacles.

Talent is a precious gift that holds the potential to transform lives, communities, and the world at large. Without proper guidance and support, talent may go unrecognized or underutilized, depriving individuals of opportunities for growth and success. Let us champion the power of talent in each child and harness it to make a lasting positive impact on each and every child. My hope is that in this conference, we can come together to stimulate new research, implement innovative ideas, and collaborate with one another in order to capitalize the talent of each individual learner for future growth.

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