

聽覺言語治療是什麼東西？

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如何才能成為聽覺言語治療師

聽覺言語治療師本身必須是一位合資格的聽力學家、言語治療師或聾童教師

成為聽覺言語治療師前，他們需要完成額外的訓練課程、及接受有經驗的聽覺言語治療師的3-5年實習訓練和指導

治療師擁有大學碩士學位或以上



聽障的溝通方法

資料來源：聾康網 <http://www.deafchina.com/jiaoyu/3565.html>

手語 Sign

全交流 Total Communication

口手標音法 Cued Speech

語調聽覺法 Verbal Tonal Method

聽覺說話法 Auditory-Oral approach

聽覺言語治療法 Auditory-Verbal Approach

沒有任何一種方法是最好的，家長選擇康復模式應該是選擇對兒童最適合的方法才是最佳的



世界各地的數據及復康跟進



世界各地的數據及復康跟進

資料來源: Cole, E. & Flexer, C. (2007). Children with Hearing Loss: Developing Listening and Talking Birth to Six. San Diego, CA: Plural

世界各地的聽障新生嬰兒的比率相若，每1,000個新生嬰兒中會有1至3個嬰兒被診斷出雙耳中度或以上的聽障 (Northern, JL & Downs, 2002)

『三早』原則：『早確診』、『早戴機』、『早復康』

在發展心理學的研究裡面告訴我們，年幼的兒童去認識口語和這個世界，大約有90%都是在不經意地去學習的。

(Akhtar, Jipson, & Callanan, 2001)



世界各地的數據及復康跟進

資料來源: Cole, E. & Flexer, C. (2007). Children with Hearing Loss: Developing Listening and Talking Birth to Six. San Diego, CA: Plural

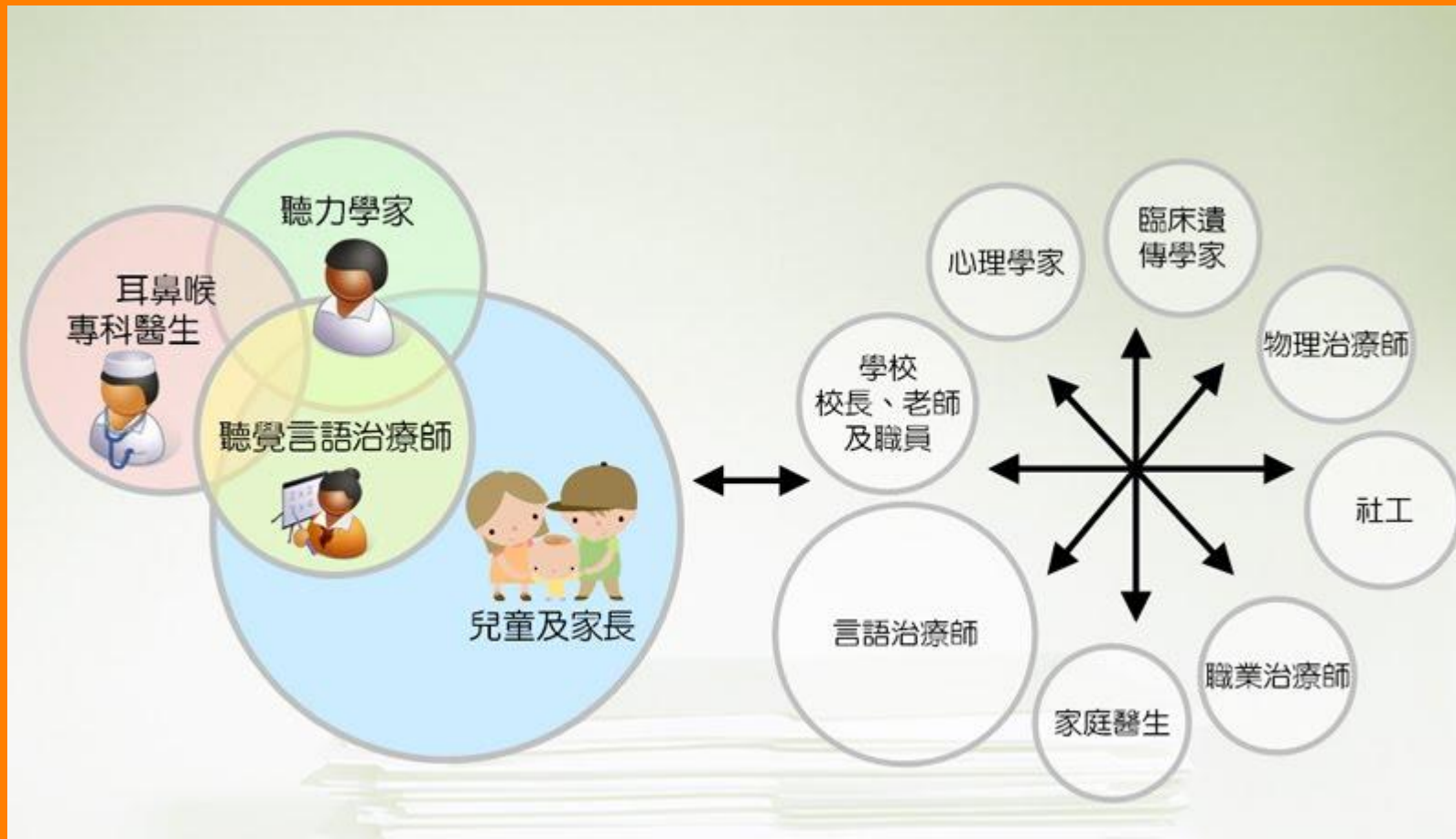
對於聽力受損兒童，他們因為聽力受損而導致聽到的頻寬大為降低，所以在學習新的詞匯和概念時，比健聽的兒童約要花出3倍時間(Pittman, 2008)

我們的任務是將今天所教導的嬰兒去為了未來的世界作好準備，他們可能是2030年、2040年和2050年的社會棟樑，但絕不是為了過去的1970年或1990年，甚至今年2018



專業團隊模型

NYGH Team Model



模型參考自: Estabrooks, W. (1994). Hear and Listen! Talk and Sing! Toronto, ONT: Arisa.



腦部刺激時數 (聆聽)

(Estabrooks, 101 FAQs (2012) Q7)

聆聽時數

(Hanft, Rush, & Sheldon, 2004)

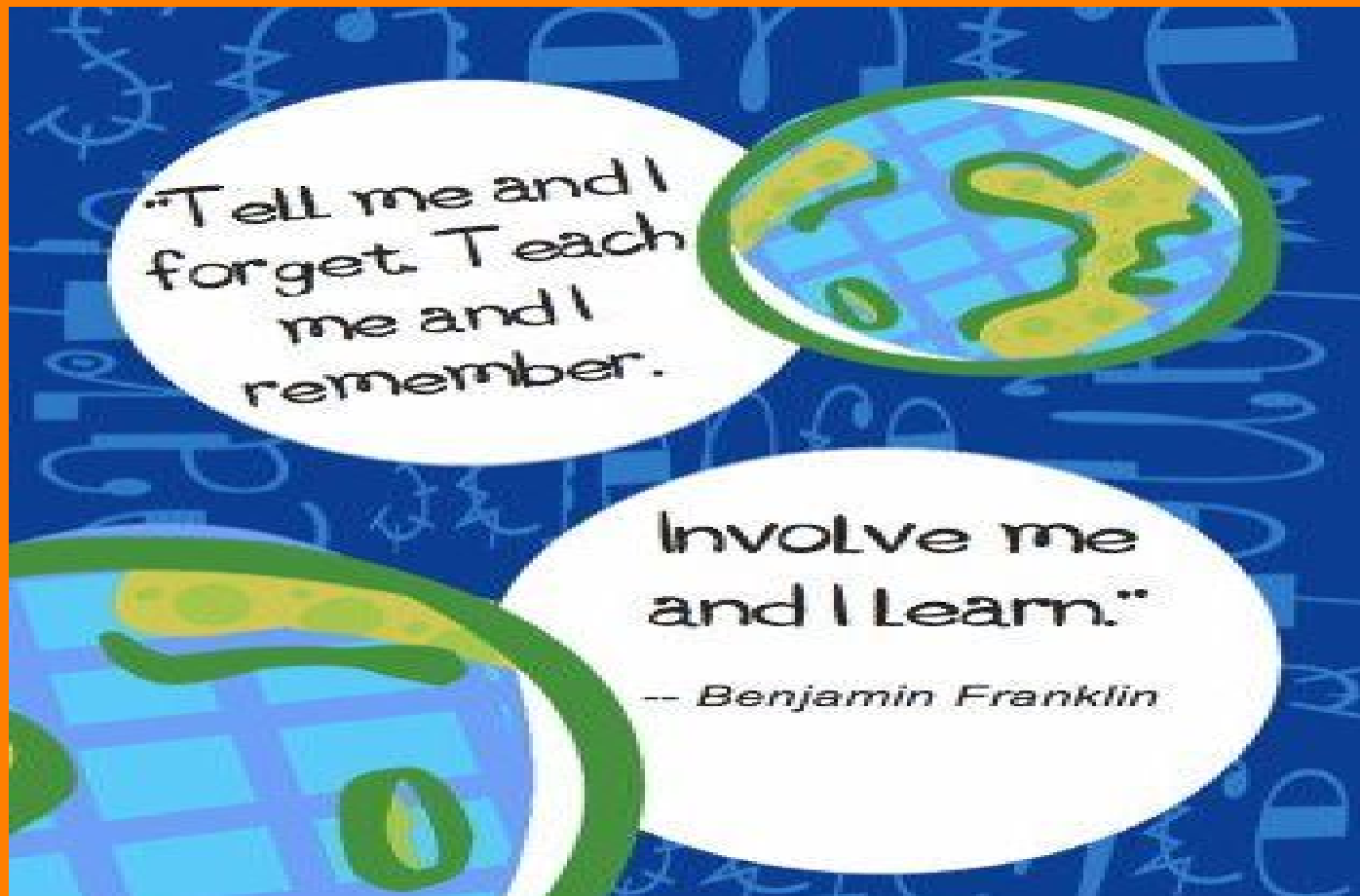
每天	:	12小時
一個星期	:	84小時
一個月(28天)	:	336小時
一年(每月336 x 12)	:	4032小時

實際可以上學的時數

(Caraway, 2010)

一年52星期 → 42-45小時



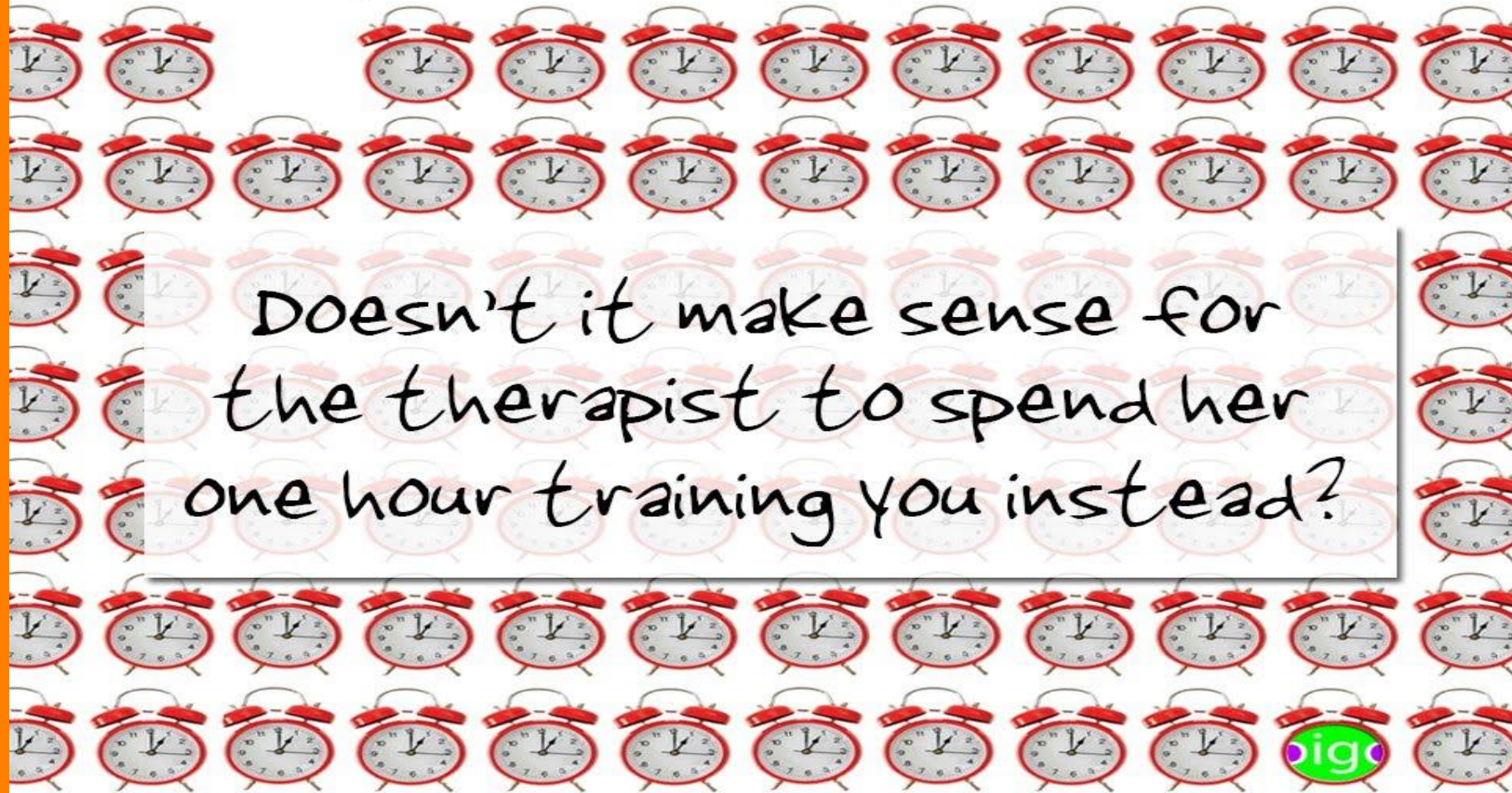


聞而忘之
見而記之
行而知之

one hour with your child's
Speech-Language Therapist.



The 83 hours you can spend with your child promoting
language and listening before your next session.



Doesn't it make sense for
the therapist to spend her
one hour training you instead?



Why Can't I Skip My 20 Minutes of Reading Tonight?

Student "A"
reads **20 minutes**
each day

3600 minutes in
a school year

1,800,000 words



90th percentile

Student "B"
reads **5 minutes**
each day

900 minutes in
a school year

282,000 words



50th percentile

Student "C"
reads **1 minute**
each day

180 minutes in
a school year

8,000 words



10th percentile

By the end of 6th grade Student "A" will have read the equivalent of 60 whole school days. Student "B" will have read only 12 school days. Which student would you expect to have a better vocabulary? Which student would you expect to be more successful in school...and in life?

(Nagy & Herman, 1987)



How many jellybeans?



Hint: the same number of words that a parent from a "welfare" family on average were found to speak to their child each hour (616)



Hint: the same number of words that a parent from a "professional" family on average were found to speak to their child each hour (2,153)

"the child's rate of vocabulary growth, vocabulary use, and IQ score was more strongly related to the number of words a parent said per hour than any other variable including parents' education or socioeconomic status"



∴ talk more...

Figure 1. Average Counts for Parents and Children (Hart and Risley, 1995)

MEASURES	PARENT COUNTS			CHILD COUNTS		
	PROFESSIONAL (N=13)	WORKING CLASS (N=23)	WELFARE (N=6)	PROFESSIONAL (N=13)	WORKING CLASS (N=23)	WELFARE (N=6)
IQ at age 3				117	107	79
Recorded Vocabulary Size	2,176	1,498	974	1,116	749	525
Average Utterances per hour	487	301	176	310	223	168
Average Different Words per hour	382	251	167	297	216	149
Average Adult Words per hour	2,153	1,251	616			
Average Adult Words per 14-hour day	30,142	17,514	8,624			

Hart, B., and Risely, T.R. (1995). Meaningful Differences in the Everyday Experience of Young American Children. Baltimore: Paul H. Brookes Publishing Co., Inc.



治療原則

An Auditory-Verbal Practice
required all 10 principles

(Alexander Graham Bell Association for the Deaf and Hard of Hearing)



Principles of Auditory-Verbal Practice 治療原則

(Alexander Graham Bell Association for the Deaf and Hard of Hearing)

- 1) Promote early diagnosis of hearing loss in newborns, infants, toddlers, and children, followed by immediate audiologic management and Auditory-Verbal Therapy.

提倡所有新生嬰兒和小孩盡早接受聽覺測試，繼而使聽障兒童即時接受聽損管理和聽覺言語治療。



Principles of Auditory-Verbal Practice 治療原則

(Alexander Graham Bell Association for the Deaf and Hard of Hearing)

- 2) Recommend immediate assessment and use of appropriate, state-of-the-art hearing technology to obtain maximum benefits of auditory stimulation.

建議立即進行聽覺評估並配戴最適當(含最先進的聽覺科技)的助聽儀器，在激發剩餘聽力之下以祈使聽障兒童獲得最大得益。



These are **NOT** my hearing aids



**These are my brain development devices.
These are my key to listening and spoken language.
Please help me wear them all waking hours.
Please talk to me, sing to me, read to me.
I have a beautiful future.**



This is **NOT** my cochlear implant

This is my
brain
development
device.

This is my key
to whispering
secrets with
friends,
enjoying music,
and listening to
my teachers.

This is my
ticket to
participation in
the wider
world.



www.AuditoryVerbalTherapy.net
Elizabeth Rosenzweig
MS CCC-SLP LSLS Cert. AVT



香港兒童聽覺協會

危機：中度聽損 (40-55 dB HL) 的影響

40-50dB聽損而未配戴聽能輔具的孩子會遺漏高達50%-70%的語音

50dB聽損而未配戴聽能輔具的孩子會遺漏高達80%-100%的語音(Mueller & Killion, 1990)導致語音不足，文法發展遲緩或殘缺、詞彙量稀少。

心智解讀



Principles of Auditory-Verbal Practice 治療原則

(Alexander Graham Bell Association for the Deaf and Hard of Hearing)

- 3) Guide and coach parents to help their child use hearing as the primary sensory modality in developing spoken language without the use of sign language or emphasis on lipreading.

指導家長去幫助其聽障兒童在發展語言能力時，以聽覺作為最基本感官方式，而並不是使用手語或讀唇方式來輔助。



Principles of Auditory-Verbal Practice 治療原則

(Alexander Graham Bell Association for the Deaf and Hard of Hearing)

- 4) Guide and coach parents to become the primary facilitators of their child's listening and spoken language development through active, consistent participation in individualized Auditory-Verbal Therapy.

指導及訓練家長，透過主動而持久的參與於個人化的聽覺言語治療課程，去學習作為其聽障子女在聆聽及語言發展方面的最初指導者。

視像治療課 (Telepractice)



Principles of Auditory-Verbal Practice 治療原則

(Alexander Graham Bell Association for the Deaf and Hard of Hearing)

- 5) Guide and coach parents to create environments that support listening for the acquisition of spoken language throughout the child's daily activities.

指導及訓練家長透過日常活動來創造適當的聆聽環境，從而讓其聽障子女獲得更多語言發展會。

(stimulate verbal communication through listening)



NEVER EVER GIVE UP

**LISTEN
LIKE
A PRO**



Catch
every
word



Principles of Auditory-Verbal Practice 治療原則

(Alexander Graham Bell Association for the Deaf and Hard of Hearing)

- 6) Guide and coach parents to help their child integrate listening and spoken language into all aspects of the child's life.

指導及訓練家長去幫助其聽障子女將其聆聽及說話能力融入所有生活環境中。

(interact with others at home and school, in the community and in the world)



個案背景

學生：CC

年齡：5歲

聽損程度：深度(右)／深度(左)

配戴助聽儀器年齡：1歲6個月

開始聽覺語言治療年齡：1歲7個月

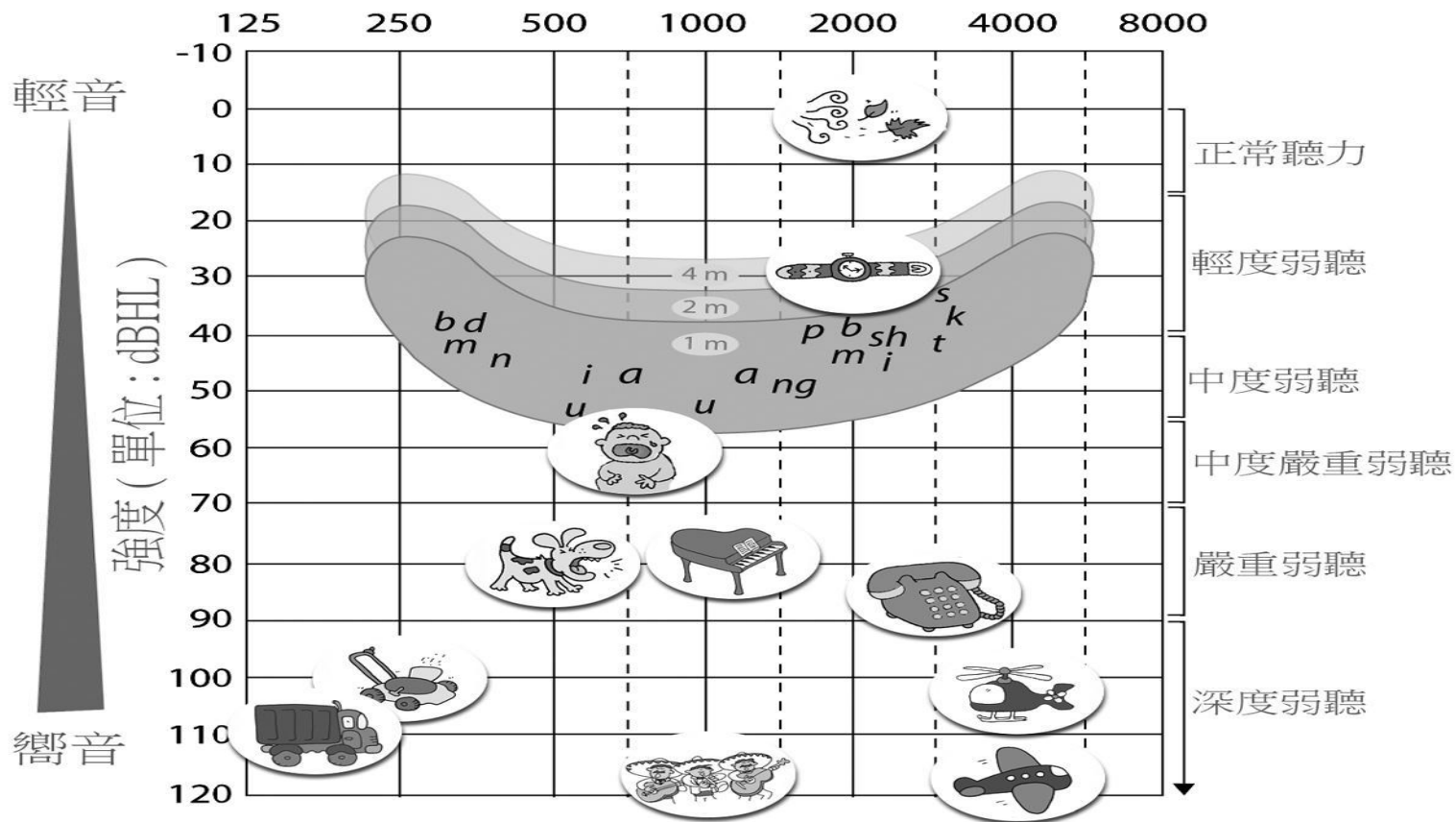
助聽儀器資料：助聽器(左)耳蝸(右)

學校：主流



低音  高音

頻率 (單位: Hz)



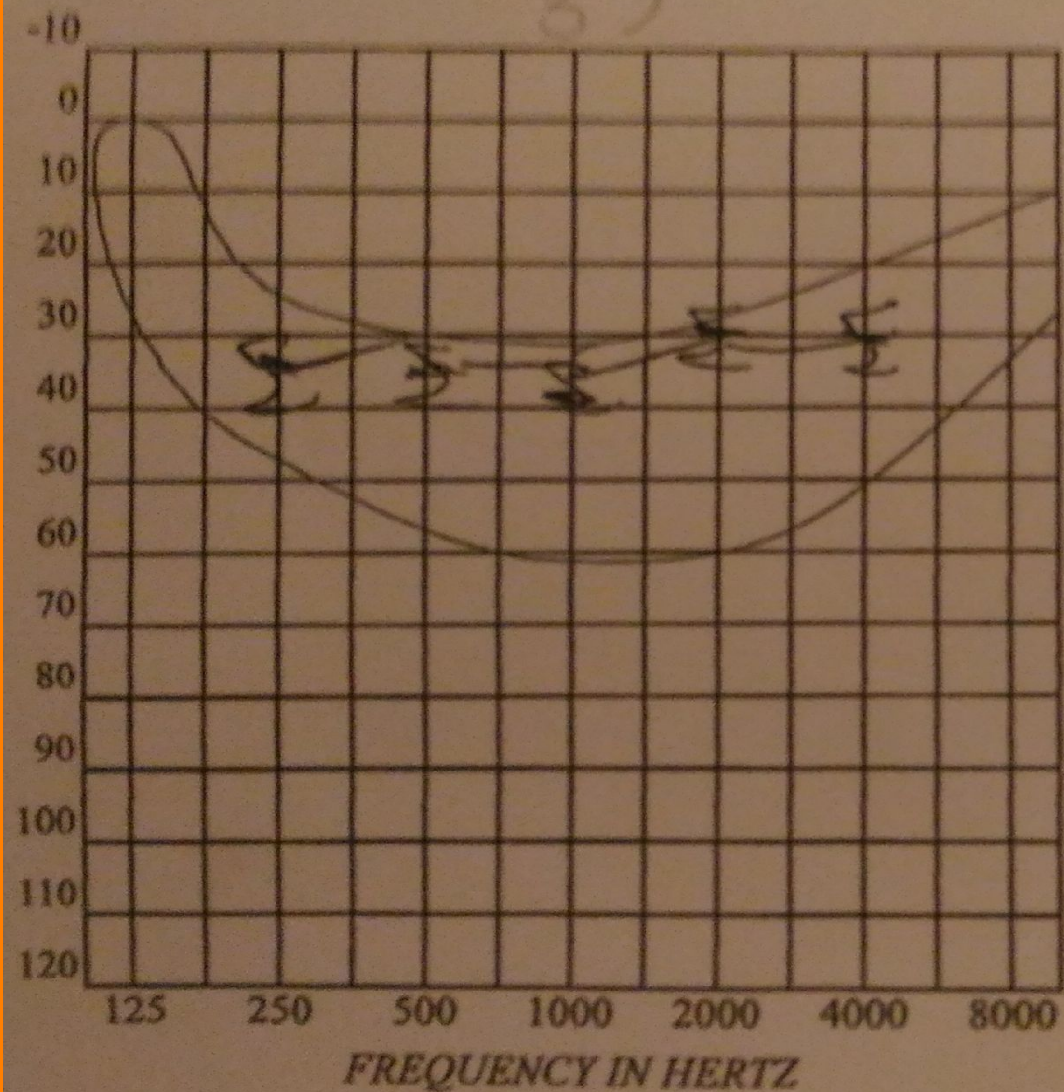
常用音聽力圖表



RIGHT EAR AUDIOGRAM

dBHL(I.S.O.)

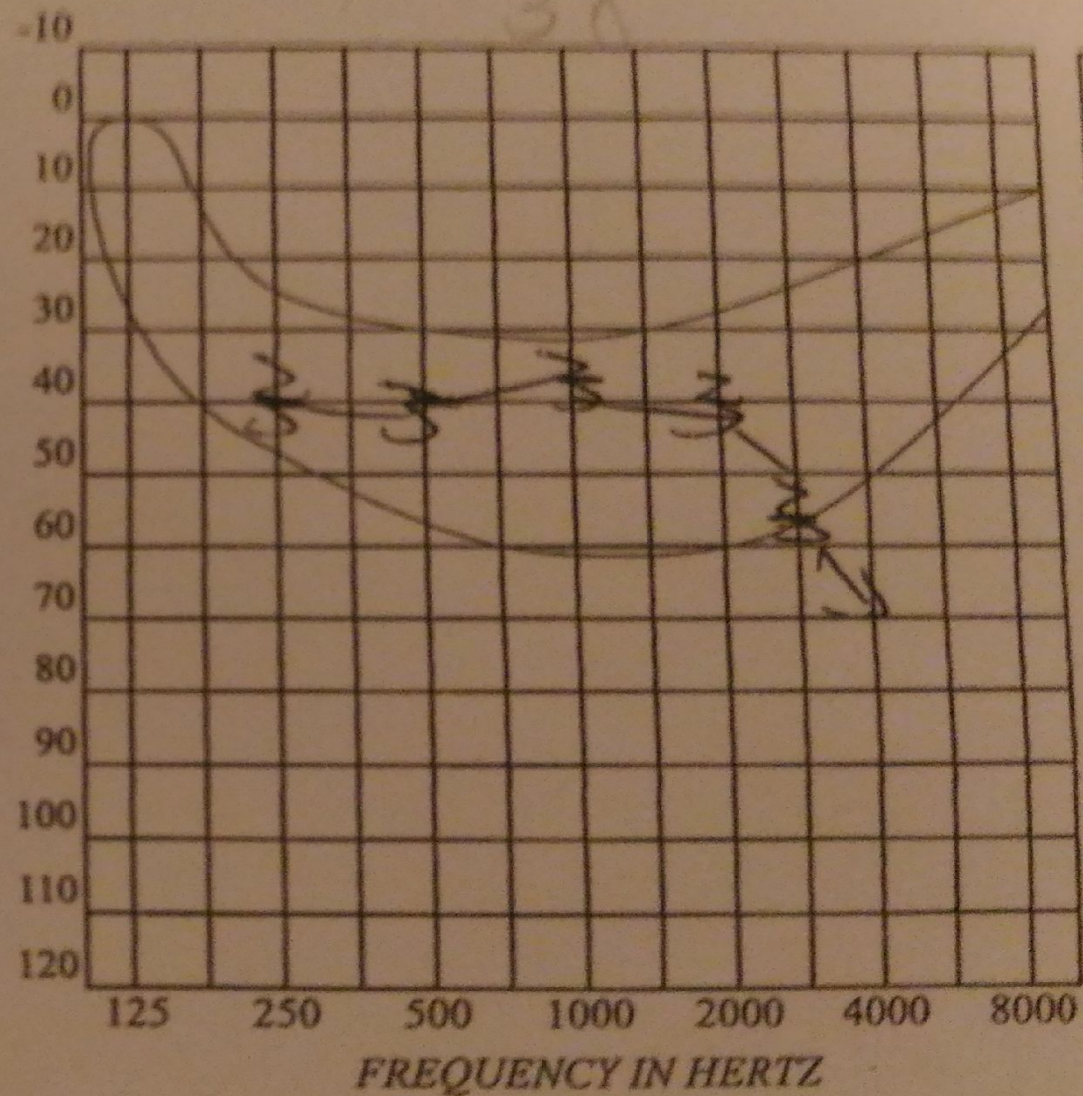
33



LEFT EAR AUDIOGRAM

dBHL(I.S.O.)

38



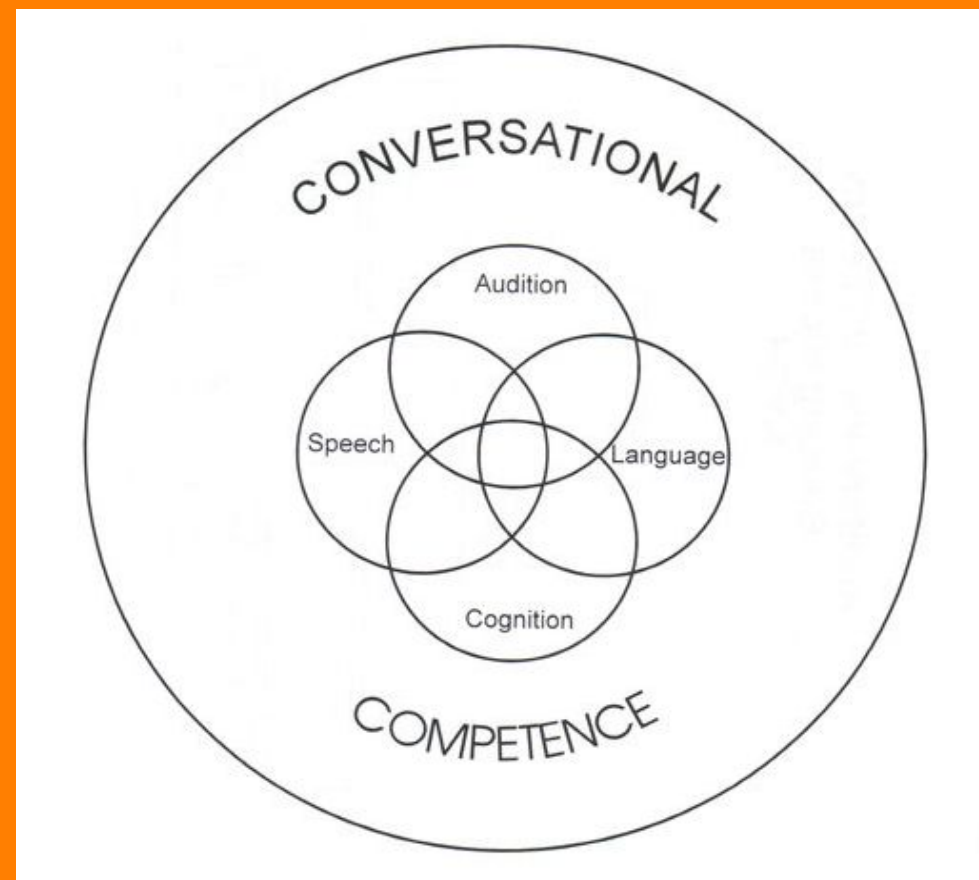


Principles of Auditory-Verbal Practice 治療原則


(Alexander Graham Bell Association for the Deaf and Hard of Hearing)

- 7) Guide and coach parents to use natural developmental patterns of audition, speech, language, cognition, and communication.

指導及訓練家長利用自然模式去發展聽障兒童的聆聽、語言、發音、認知及溝通能力。



I CAN'T HEAR
YOU IF YOU
COVER YOUR
MOUTH.



香港兒童啟迪協會

I CAN'T
HEAR YOU
...IF YOU DON'T...
FACE ME.

香港兒童啟迪協會

I CAN'T HEAR YOU
IF YOU MIMBLE

香港兒童啟迪協會

**SPEAK
ONE SPEAK
AT A TIME
AT A TIME**

香港兒童啟迪協會

Principles of Auditory-Verbal Practice 治療原則

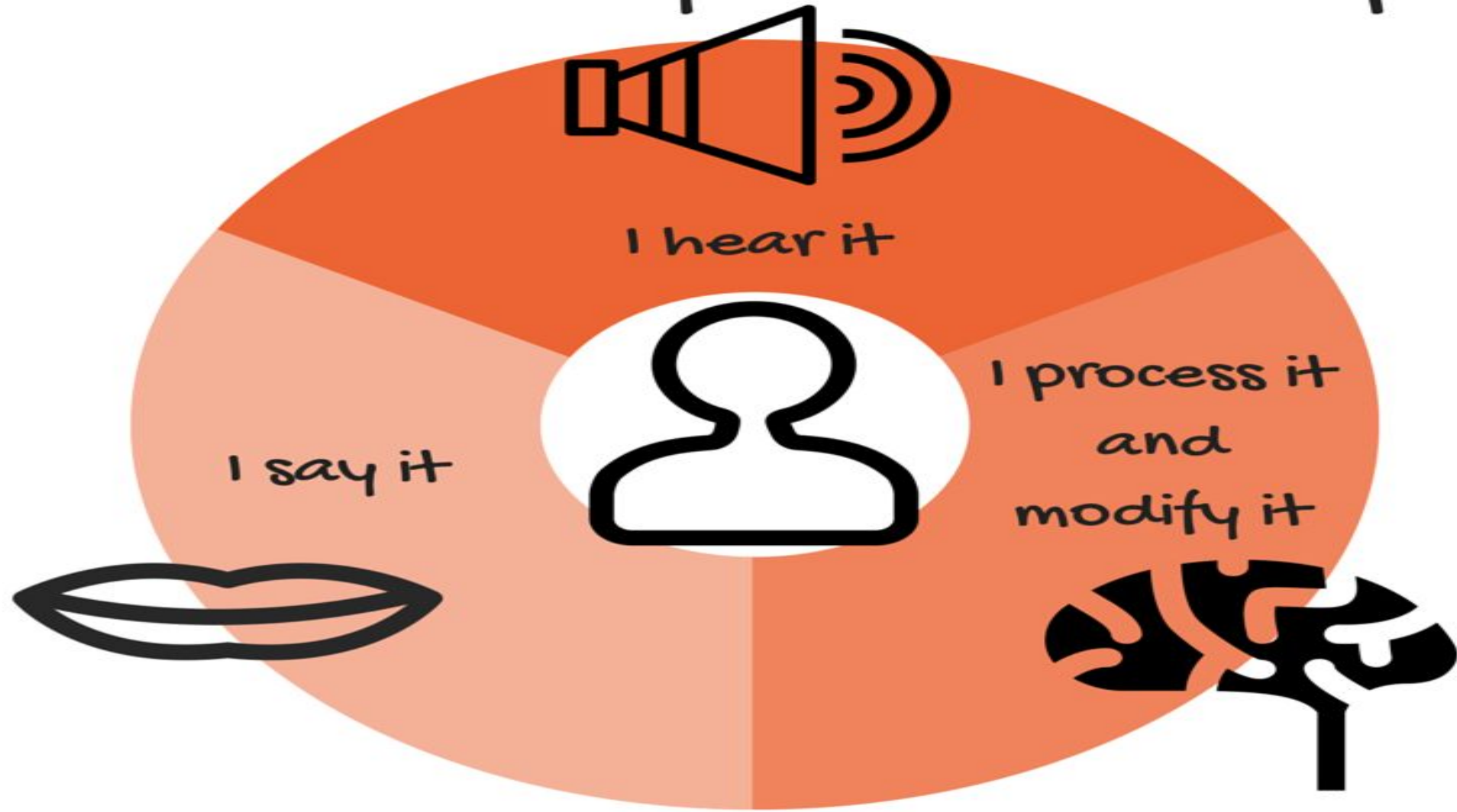
(Alexander Graham Bell Association for the Deaf and Hard of Hearing)

- 8) Guide and coach parents to help their child self-monitor spoken language through listening.

指導及訓練家長去幫助其聽障子女藉聆聽作自我監察及糾正其發音。



The Auditory Feedback Loop



Elizabeth Rosenzweig MS CCC-SLP LSLIS Cert. AVT
www.AuditoryVerbalTherapy.net



香港兒童語言協會

Principles of Auditory-Verbal Practice 治療原則

(Alexander Graham Bell Association for the Deaf and Hard of Hearing)

- 9) Administer ongoing formal and informal Diagnostic assessments to develop individualized Auditory-Verbal treatment plans, to monitor progress and to evaluation the effectiveness of the plans for the child and family.

藉著正規的評估和平常的觀察，為每一個聽障兒童設計獨有的聽覺言語治療計劃、並監察其進度及去評估該計劃對兒童及其家長是否有效。



我的經驗：跟我孩子的聽力學家

替代

/b/ of /m/



Principles of Auditory-Verbal Practice 治療原則

(Alexander Graham Bell Association for the Deaf and Hard of Hearing)

- 10) Promote education in regular schools with peers who have typical hearing and with appropriate services from early childhood onwards.**

提倡讓聽障兒童融入普通主流學校，與聽力正常的朋輩一起學習。並需從進入學校開始，家長建議校方提供適當的服務來支援聽障學生。



技巧

等待

不要重覆

避免同一時間多於一人說話



Physicians interrupt 69% of patient interviews within 18 seconds of the patient beginning to speak.



As a result, in 77% of the interviews, the patient's true reason for visiting was never elicited (Lee, 2000).



數碼31台

第5季 – 聽清楚D

第9季 – 再聽清楚D

第16季 – 聽清楚D 3



There are no shortcuts to any
place worth going.





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參考資訊 - 聽覺言語治療

AG Bell Academy for Listening and Spoken Language (2007). *Principles of LSLS Auditory-Verbal Therapy*. Retrieved February 13, 2011 from <http://www.agbell.org/AcademyDocument.aspx?id=563>.

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Elizabeth Rosenzweig. *This is not my Cochlear Implant / Hearing Aids.* <http://auditoryverbaltherapy.net/>

Dave Sindrey

[OIGO.](http://www.oigo.mx/oigo-blog.php) <http://www.oigo.mx/oigo-blog.php>

[Troll in a bowl.](http://www.trollinabowlapps.com/) <http://www.trollinabowlapps.com/>

[Listening Tree.](http://listeningtree.ca/) <http://listeningtree.ca/>

[Listening Room.](http://thelisteningroom.com/lessons) <http://thelisteningroom.com/lessons>

[AVT TV.](http://www.davesindrey.com/avt-tv.php) <http://www.davesindrey.com/avt-tv.php>



