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视觉语言与视觉学习  
VISUAL LANGUAGE & VISUAL LEARNING



# 研究简报： RESEARCH BRIEF:



## 阅读研究和耳聋儿童 READING RESEARCH AND DEAF CHILDREN

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# 4

阅读研究和耳聋儿童的主要发现：

### Key Findings on Reading Research and Deaf Children:

- 早期诊断和干预协助产生更好的阅读成果。
- 强大的语言基础（不管语言或方式）对阅读成功很重要。
- 家长的语言流利程度或孩子的沟通模式是至关重要的。
- 家长参与孩子的学术环境对学术成功是重要的。
- 为了阅读，孩子必须发展认字，有多种渠道将书面的字和意思联系起来。
- 在发展先进的阅读技能时，语音似乎对一些聋童很重要，但不是对所有的。
- 语音编码和认识技能预测聋人从低度到中度的阅读成就。
- 父母聋的聋童往往有丰富的语言环境。因此，父母聋的聋童往往阅读更好，但给予不断的和丰富的语言接触，父母听力正常的聋童也能赶上。

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## “约翰尼为什么不能阅读？” “Why can't Johnny read?”

对一般的美国儿童，这个问题已经被问了一次又一次，但当讲到聋童时，它甚至更相关，他们到18岁时的平均阅读水平，在超过半世纪以来，相对稳定地维持在三到四年级的水平。<sup>1, 2, 3, 4, 5, 6, 7</sup>多数研究表明，有更多残余听力的儿童，比那些有较少听力的，往往有更好的阅读和学术成果，但是，甚至轻度听力损失也会影响阅读结果。<sup>8, 9</sup>然而，尽管有这些令人沮丧的统计，许多耳聋的人确实成为熟练的读者，并赢得本科和研究生学位。

这些冲突的结果表明两个问题。首先，为什么大多数聋儿努力学习阅读却发展出这样有限的英语读写能力？第二，鉴于这种情况，其它聋童怎么能开发出了先进的阅读技能？可能回答这两个问题会帮助我们了解如何使第一组接近第二组的成果。这个简报的目标是总结关于聋人读者的研究，并确定影响聋儿发展流利的阅读能力的关键，尤其是那些涉及通往阅读成功的替代途径的发现。

据估计，超过90%的聋儿出生于父母听力正常的家庭，少至4%的聋童有至少一个聋人家长。<sup>10</sup>尽管早期接触了听力正常父母所说的英语，干预计划，以及如数位助听器和人工耳蜗植入的技术，大多数聋儿仍继续挣扎于发展合乎年龄的英语能力，特别是在复杂的语法和造句领域。<sup>11, 12</sup>许多研究表明聋童在早期的读写技能上与听力正常儿童并行，但是许多人没有过渡到文化发展的后期阶段。<sup>13, 14</sup>

### 基于声音与书面的文字识别 Sound versus Print-based Word Recognition

关于阅读和聋童（及成人）的许多研究，注重于孩子认识或解码个别单词的能力。把词与意相连是重要的，因为如果文中甚至只有10%到20%的字不认识的话，也很难理解读的是什么。对听力正常读者的研究，已提出了单字解码的两条途径。<sup>15</sup>间接的语音的，或以声音为基础的，途径涉及到单词中的字母与声音的关系（例如，“出声读”这个词）。这过程比较慢，但使孩子认识他

们之前从来没有见过的书面的（或不熟悉的）词。

直接的词汇的，或以书面为基础的，途径依赖于全字的识别。它是快速的，并对不遵循语音规则的词是可行的（例如，“游艇”），但孩子必须已经知道书面形式的这个词以便这条途径可行。一般的假设是，听力正常儿童对不熟悉的词使用语音学途径，对熟悉的词采用直接的途径。<sup>16</sup>

### 聋童使用语音的，或以声音为基础的解码吗？

#### Do Deaf Children Use Phonological, or Sound-based, Decoding?

许多研究人员都注重于语音意识（PA）和解码，甚至对于聋人读者，把它们作为阅读的一个关键组成，一些评论文献总结到，成年聋人读者可以并确实使用语音来协助书面文字的解码。<sup>17, 18, 19, 20, 21, 22</sup>耳聋和重听儿童被发现，通过语音-阅读，综合沟通，阅读，及与手势拼写和讲话动作相连的动觉反馈，来接触语音意识和解码技巧。<sup>21, 23, 24, 25, 26, 27, 28</sup>

对人工耳蜗植入用户的研究表明，孩子的早期英语语言技能，可以预测PA和之后的阅读技能的发展。<sup>29</sup>这表明，对至少有些聋童来说，口语技能同时驱动PA和以后的阅读技能。然而，与人工耳蜗植入用户有关的研究也表示，即使那些依靠听力的人都可以用手语（或视情况而定，语音的视觉支持）更好地接触英文。<sup>30</sup>

不同途径接触的相对好处似乎取决于，孩子的内在能力和需求，孩子使用的语言或沟通方法，教育的重点，等等。然而，所有孩子需要尽早接触到丰富的，可触及的第一语言，对聋童来说 - 甚至那些通过人工耳蜗植入或助听器接触到听觉输入的 - 这，必须，包括视觉接触。

### 阅读理解相对于字词解码 Reading Comprehension Versus Word Decoding

另一项研究发现，虽然一些使用人工耳蜗植入的耳聋儿童发展了足够的英语能力，在这种情况下，单字技能普遍较强，但许多儿童仍在复杂的

语言形式上有弱点。<sup>12</sup>因为它们涉及更先进的字词形成，语法，和句法，这些复杂的语言技能对于高程度的阅读是重要的。<sup>12</sup>

即使支持音素解码方法阅读的研究人员也承认，有美国手语（ASL）流利的聋父母的聋童有早期和丰富的语言环境；这个环境提供了一个阅读基础，其结果是出自聋人家庭的聋童，比父母听力正常且不用手语的聋童，通常阅读较好。<sup>17</sup>他们指出，读写能力取决于主要语言的形态，语义，和造句的个人技能，甚至当主要语言碰巧以视觉方式进行，像是ASL这种情况。<sup>17</sup>事实上，父母听力正常的聋童，去手语学校并且开发出了可媲美聋父母的孩子的ASL技能，也显示发展了可媲美的阅读能力。<sup>31</sup>

## 阅读成功的替代途径

### Alternate Routes to Reading Success

数据表明，虽然一些聋人可能依赖于PA，但其他人使用一个阅读成功的替代途径。优先使用某种或其他途径可能是孩子的语言和教育史决定的。例如，在一项研究中，所有的组有类似的阅读技能，成长中使用口语或提示讲话的聋成人，证明了有可媲美听力正常同行的PA，并且他们的PA技能与他们的阅读理解水平相联系。<sup>32</sup>尽管有类似的阅读技能，使用ASL长大的聋人参加者没有表现出，在其它组看到的，PA和阅读理解之间的相同的关联。<sup>32</sup>这表明ASL流利的组使用的是阅读成功的替代路径。

在研究中的一个一致的发现是，强有力的第一语言（L1）的基础（不管L1所使用的语言是什么）是阅读成功的关键。在双语能力（美国手语和英语的）和形态学知识（两种语言的）之间，已发现一个强烈的正面关系；事实上，VL2研究人员发现高水平的句法和语义知识对掌握阅读能力很重要。<sup>33</sup>用双语方法来学习阅读，家长和教师使用美国手语（ASL）作为L1，然后英语识字教学是基于通过第一语言接触到的复杂的语言知识。<sup>8, 34, 35</sup>

其他的研究表明，许多聋童证明，方法的使用是基于手势拼写，手语，或以书面为基础的（拼字的）密码。<sup>33, 36, 37, 38, 39, 40, 41, 42</sup>例如，有些孩子可能不认识一个书面的字，直到他们用手势拼写了它，那时他们能够认识这个字并且与意思相

联系。其他孩子直接把书面的字和手语相联系，然后联系到意思，可以看到他们通过用手语解释文章而“大声读出”。还有一些人使用词汇途径并把书面的字和含义直接相连。

评论文章讨论了各种各样的替代解码途径以及每个途径对耳聋读者的潜在好处和限制。<sup>20, 43</sup>

此外，最近一项对语音编码和意识的文献的整合分析 - 一个VL2支持的研究 - 发现一半的研究发现了PA在统计学上显著的证据，但一半没有。<sup>34</sup>不过，这个数字被事实复杂化了，一些发现PA证据的研究，没有包括阅读测量，只是韵律判断或一些其他的语音学测量，或者说，研究没有充分考虑拼字重叠的可能性。<sup>34</sup>这一整合分析也建议，PA只解释了聋人参加者阅读能力差异的11%。当调查与阅读成果的关系时，孩子的语言技能（无论是ASL还是英语）是阅读成功的最好预测。<sup>33, 34</sup>

## 阅读成功的其他因素

### Other Factors in Reading Success

研究调查了单词解码之外的阅读成功的重要因素，发现对于聋人高级阅读技能的发展，一些因素是至关重要的。显然，有第一语言的坚实基础是关键，而研究调查了预测更好的阅读技能的因素，也发现拥有早期诊断和较大词汇量的儿童往往阅读更好。<sup>9, 45</sup>

两个通常被忽略的因素是，父母对教育的参与和孩子与教师和同伴沟通时的舒适度；两者都影响耳聋儿童的学术和阅读成果。<sup>9</sup>对于听力正常儿童以及聋童，家长对孩子教育的参与被认为很重要，在聋童的例子中，它也可能反映了家长对孩子主要语言的流畅，作为一个关键的技能以提供孩子一个持续的和丰富的语言环境。此外，孩子们需要能够自由地与教师和同学们沟通以充分参与课堂教学。与教师和同学的接触将影响学习的动机和参与度，这两者都是学术成就的关键。在无障碍的课堂环境下，孩子则更可能发展语言和学术技能。

不管孩子的主要语言，词汇的大量掌握以及书面语言的句法和语法都（独立地）是阅读成功的关键。<sup>20, 28, 46, 47, 48</sup>聋人读者必须能够进行基本的阅读过程，如单字的自动解码（无需努力思考），以便有认知资源可用来进行更高级的阅读过程。<sup>49</sup>在耳聋成人中，甚至对较弱的读者，因个人原因完成的阅读量预测了对文章的理解，内在的动机是阅读量最好的预测。<sup>50</sup>因此，一个互动的关系存在于阅读量和阅读理解之间。不管个人的阅读技能水平，这加强了鼓励阅读的需要。

## 正在进行的阅读研究

### Ongoing Research on Reading

虽然广泛的问题影响阅读技能，但阅读能力的两个最重要的因素，似乎是强有力的第一语言和不断的正在进行的阅读练习。其他因素在继续被辩论和研究。

VL2的研究人员，通过研究，如早期教育纵向研究（ELES），正在进一步理解涉及阅读技能发展的过程。EELS的研究调查家长，学校，教师和儿童的影响早期阅读能力发展的变量。在三年期间，除了收集和评估他们家庭和校园环境的信息外，EELS研究者还收集有关孩子的注意力，语言，记忆，阅读和阅读前技能的数据。

有许多问题有待回答，继续研究对提高聋童的阅读成果很关键。

## 把研究融入教学

### Integration of Research in Education

VL2发布研究简报作为教育工作者和家长的资源。我们的目标是告知教育社区研究成果，总结相关的奖学金，并且提出建议，供教育工作者和家长用于应对教育耳聋和重听儿童时所面临的多方挑战。

在这个简报中提供的信息试图澄清早期视觉语言发展对耳聋和重听婴幼儿的重要性。

研究简报可以在 [vl2.gallaudet.edu](http://vl2.gallaudet.edu) 找到。

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### Mission

The Clerc Center, a federally funded national deaf education center, ensures that the diverse population of deaf and hard of hearing students (birth through age 21) in the nation are educated and empowered and have the linguistic competence to maximize their potential as productive and contributing members of society. This is accomplished through early access to and acquisition of language, excellence in teaching, family involvement, research, identification and implementation of best practices, collaboration, and information sharing among schools and programs across the nation.



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