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**Does the Fitting Satisfy the Patient?**

Donald J. Schum, Ph.D., Vice President of Audiology & Professional Relations, Oticon Inc.

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**Moderator:**  
Carolyn Smaka, Au.D., Editor-In-Chief

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**Does the Fitting Satisfy the Patient?**

Donald J. Schum, PhD  
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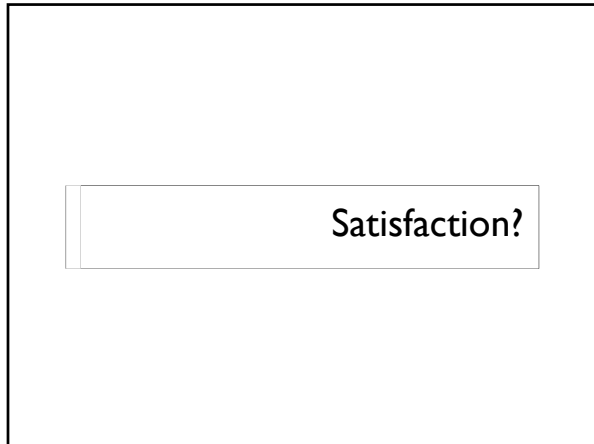
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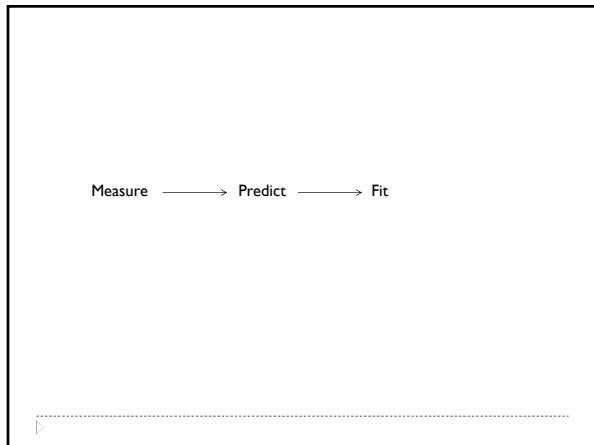
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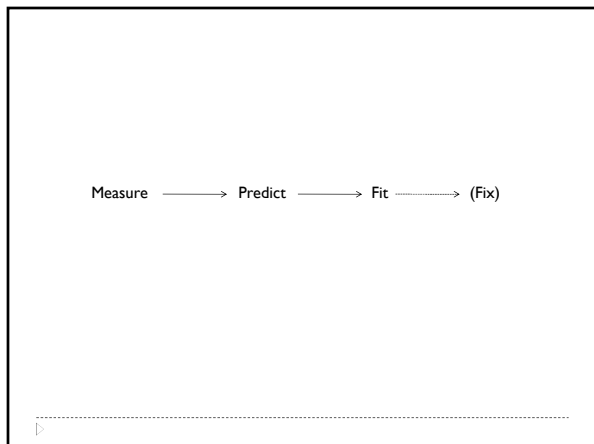
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Lessons from Other Professions

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Satisfaction:

- ▶ Interpersonal Aspect
- ▶ Care Environment



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Fitting versus Fitting Experience

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## Acute Condition versus Chronic Disease

(Butts, 2012)

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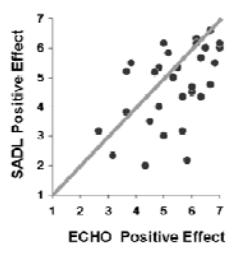
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### Relationship between ECHO and SADL



Cox, 2000

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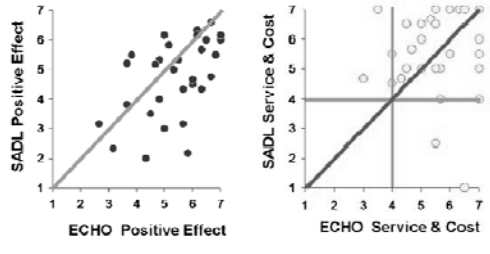
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### Relationship between ECHO and SADL



Cox, 2000

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Satisfaction:

- ▶ Driving Factor: Have Expectations Been Met?

Jackson et al., 2001

What drives *Satisfaction*?

- ▶ Whatever the patient considers important.

**What drives *Satisfaction*?**

What drives *Satisfaction*?

- ▶ Audiologist: highest level of performance
- ▶ Patient: ?

**Table 2. Overall satisfaction with hearing aids 1989-2008.**

	1984	1989	1991	1994	1997	2000	2004*	2008
<b>Satisfaction with hearing aids</b>	<i>(n=1,632) (n=2,322) (n=2,327) (n=2,720) (n=2,572) (n=2,189) (n=2,633)</i>							
<b>Total owner population</b>								
% Satisfied		59.6%	58.2%	53.5%	53.9%	54.7%	67.9%	74.0%
% Neutral		21.7%	21.7%	20.6%	26.4%	24.3%	10.8%	8.6%
% Dissatisfied		18.7%	20.1%	19.9%	19.8%	21.0%	21.3%	17.3%
% hearing aids in drawer (not used)	13.5%		12.0%	12.9%	16.2%	11.7%	16.7%	12.4%
<b>New hearing aids (&lt;1 year)</b>								
% Satisfied			66.4%	71.8%	62.9%	63.1%	77.5%	80.6%
% Neutral			21.8%	22.0%	27.0%	22.4%	8.0%	7.3%
% Dissatisfied			11.8%	6.2%	10.1%	14.5%	14.5%	12.0%

Kochkin (2010) MarkeTrak VIII

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Kochkin (2010) MarkeTrak VIII

### Factors correlated with Overall Satisfaction

1. Overall benefit (.71)
  2. Clarity of sound (.70)
  3. Value (*performance of the hearing aid relative to price*) (.68)
  4. Natural sounding (.66)
  5. Reliability of the hearing aid (.65)
  6. Richness or fidelity of sound (.65)
  7. Use in noisy situations (.63)
  8. Ability to hear in small groups (.63)
  9. Comfort with loud sounds (.60)
  10. Sound of voice (occlusion) (.60)
- Kochkin (2010) MarkeTrak VIII

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### Performance-based factors

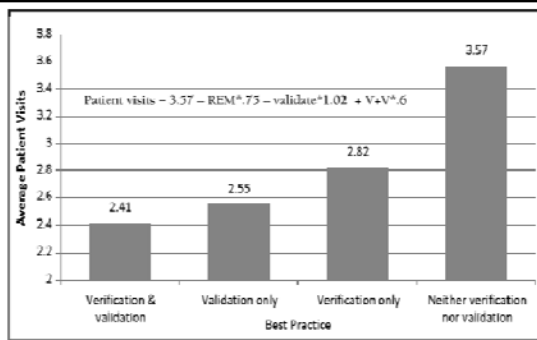
Kochkin (2010) MarkeTrak VIII

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### Sound Quality/Seamlessness/Comfort factors

Kochkin (2010) MarkeTrak VIII



**FIGURE 2.** Average patient visits to fit hearing aids based on use of verification (REM) & validation procedures (objective or subjective).

Kochkin (2010) MarkeTrak VIII

## International 2010 Patient Survey

- 1,450 respondents
- 750 first time users, 700 experienced users, recruited through local web panels
- US, CAN, GER, FRA and ITA
- Web-based survey with stimuli material (visuals, messages).




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### What do you find important when it comes to the choice of the hearing instrument?




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## Mindset Entering the Process

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## Expectations

Are they always stated?

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## Motivation

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## Patient or Consumer?

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First Time User

▶ Appearance

▶ Acceptance

▶ Performance

First Time User

▶ Appearance

▶ Acceptance

▶ Performance

Experienced User

▶ Better?

▶ Performance

▶ Sound Quality

Patient-defined Dimensions: Examples

▶ Are you hearing better?

▶ Are they helping you where you hoped?

Patient-defined Dimensions: Examples

- ▶ Are you hearing better?
- ▶ Are they helping you where you hoped?
- ▶ Does it sound like you expect?
- ▶ Is it comfortable when you are in noisy environments?
- ▶ Does it sound like your previous devices?
- ▶ Are you overwhelmed by the sound?
- ▶ Do you like the way it sounds?
- ▶ Does it seem unnatural? Mechanical? Machine-like? Telephone-like? Hissy?
- ▶ Does it sound clear? Pleasant? Natural?

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Getting the Sound Right

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16 Hours

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Choice A



Choice B



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## Variability of Sound Preferences

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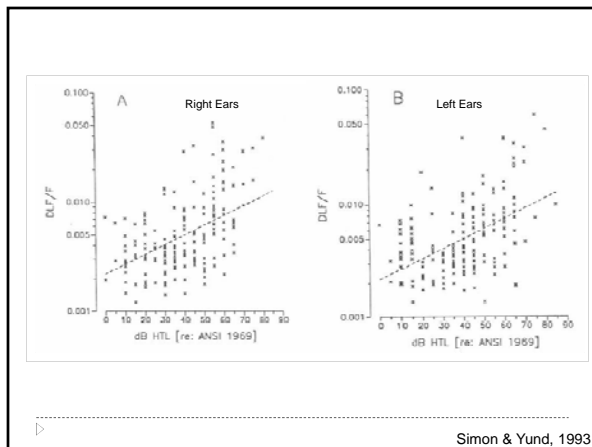
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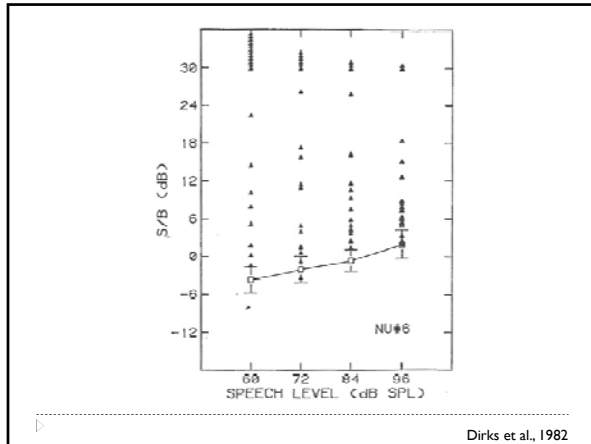
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Dirks et al., 1982

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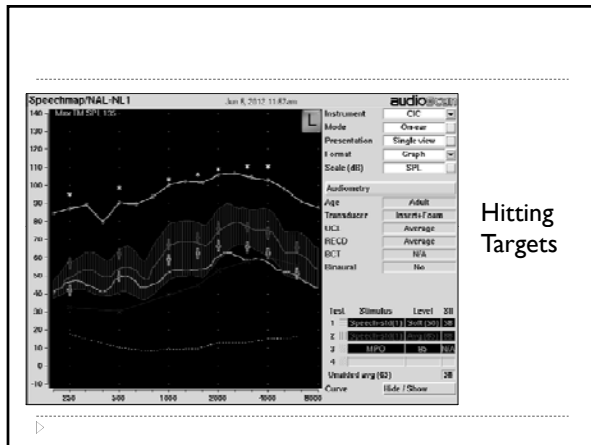
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Hitting Targets

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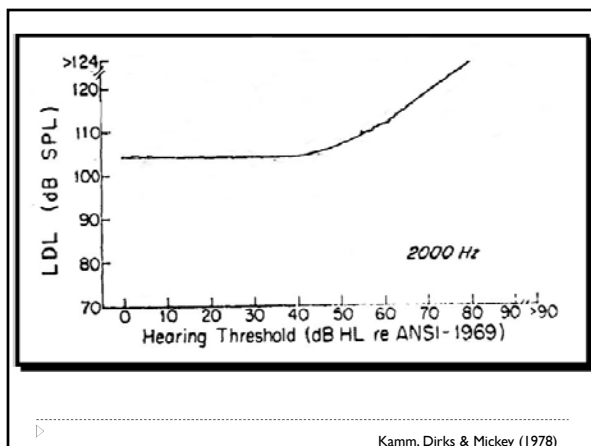
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Kamm, Dirks & Mickey (1978)

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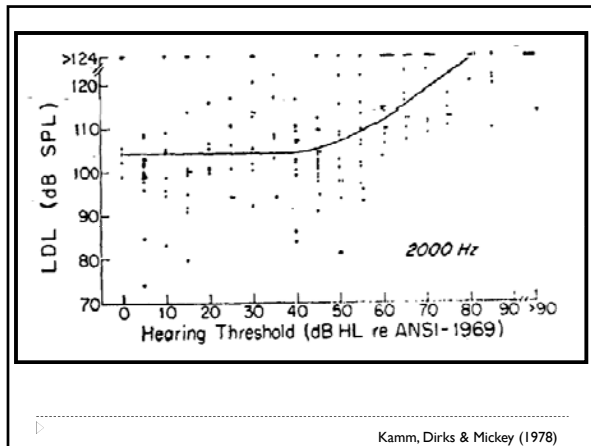
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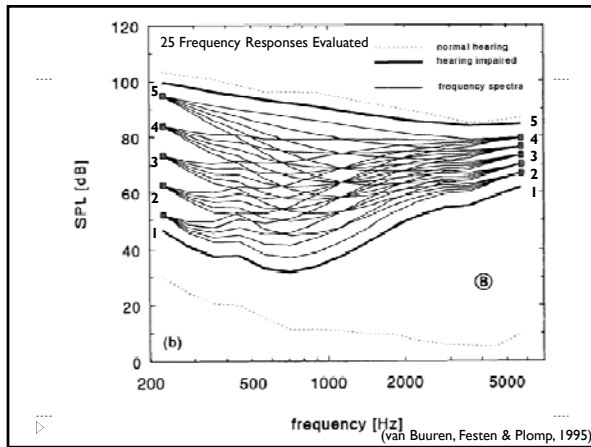
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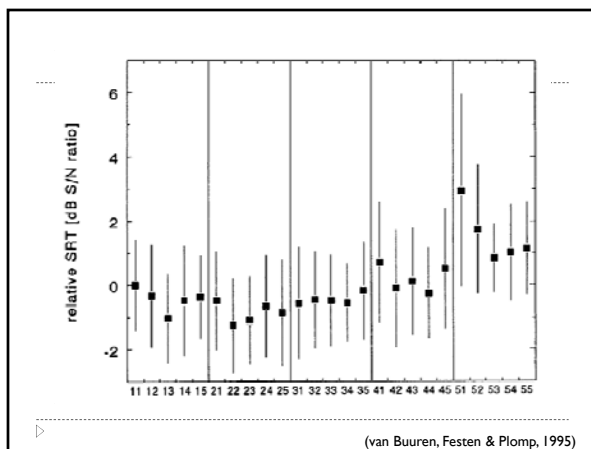
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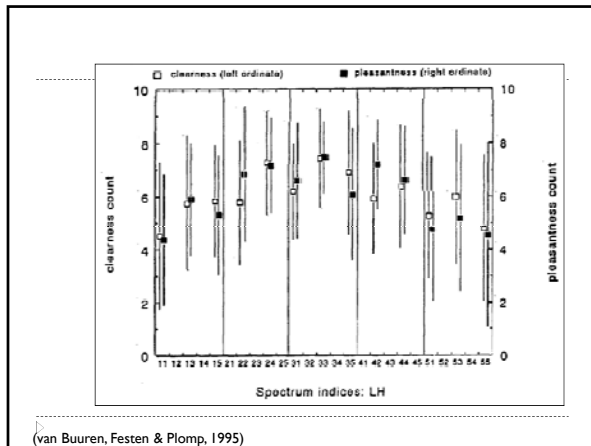
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What does it mean to fine tune?

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Aesthetics versus Performance

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Aesthetics versus Performance

“I hate the way it sounds, but it seems to work.”

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Aesthetics versus Performance

Overall or Specific Situations?

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Aesthetics versus Performance

Can overall performance be assessed in the office?

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## Aesthetics versus Performance

Which Sounds?  
Which Questions?  
Which Device Dimensions?




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Measure → Predict → Fit → (Fix)




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## **Maximizing Satisfaction**

► The Total Experience Matters




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### **Maximizing Satisfaction**

- ▶ The Total Experience Matters
- ▶ Uncover Expectations ...Assess Motivation

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### **Maximizing Satisfaction**

- ▶ The Total Experience Matters
- ▶ Uncover Expectations ...Assess Motivation
- ▶ Both Performance & Sound Quality/Comfort/Seamlessness

▶

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### **Maximizing Satisfaction**

- ▶ The Total Experience Matters
- ▶ Uncover Expectations ...Assess Motivation
- ▶ Both Performance & Sound Quality/Comfort/Seamlessness
- ▶ Predictions are Difficult

▶

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