

Applying The Challenge Point Framework

Maximizing Neurological Recovery in Pediatric Rehabilitation

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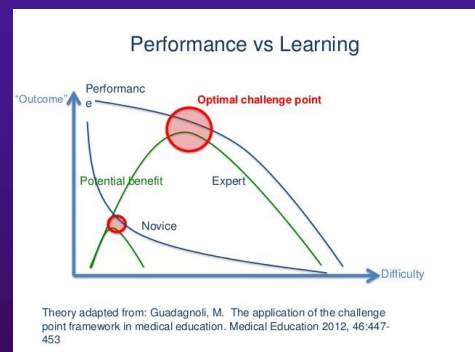
The Challenge Point Framework

- Background
- Application in Rehabilitation



Challenge Point Framework

- **Task Difficulty**
 - Nominal vs Functional
- **Augmented Feedback**
- **Contextual Interference**



Other Considerations

- **Pediatric and Adult IRF Realities**
- **Confounding Factors**
 - Cognitive impairments
 - Neurological structures
 - Age
 - Developmental Considerations



Pediatric Inpatient Rehabilitation

- **Multidisciplinary application of CPF:**
 - Speech Therapy
 - Physical Therapy
- **Case Example**
 - 13 yo
 - Left posterior frontal-parietal IPH (Craniotomy)
 - Right hemiparesis, right hemisensory loss, expressive>receptive aphasia, apraxia of speech



Application to SLP Treatment

- **Motor Speech**
 - Follows motor learning principles of CPF
- **Language and Cognition**
 - Developmental considerations are key
 - Vygostky's theory of development
 - "Zone of proximal development"
- **Applies to all disciplines, not just SLP**

Case Example Continued

Motor Speech and Language Recovery

Task-based Neurorecovery

- **Specific**
- **Motivating**
- **Intense and Repetitious**
- **Optimized Challenge Point**
 - controlling information and error, and enabling active problem-solving

Conclusion

- **Clinical Decision-making**
 - Balancing Compensation and Recovery
 - Optimizing Challenge Points