



TELEPRACTICE: ANOTHER WAY TO DELIVER

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NONFINANCIAL DISCLOSURES

The speaker is a members of the TSHA Telepractice Committee

Goals of the Session

- You will know the current laws, rules and guidelines regarding telepractice as a service delivery option in the state of Texas and the American Speech and Hearing Association
- You will be able to determine appropriate and inappropriate use of telepractice as a service delivery option for speech, language and audiology services.
- You will become familiar with the methodology and tools of telepractice.

Some Issues of the Past That Are No Longer

- ◆ Technophobic concern
- ◆ Clients want access and convenience
- ◆ Quality is going up and costs are going down
- ◆ Advocacy is making gains with Telehealth services as not only appropriate, but in some cases better.
- ◆ Social technology use is ubiquitous
- ◆ 85% of US adults use the internet (PEW Research)
- ◆ Use of technology with health care is expanding greatly
- ◆ Proliferation of broadband connectivity
- ◆ Proliferation of personal/portable technology devices

Professions Utilizing Telehealth/Telemedicine

- Speech Language Pathology
- Cardiology
- Radiography
- Otolology
- Pediatrics
- Psychology
- Psychiatry
- Dentists
- Pharmacology
- Occupational therapy
- Physical therapy
- Audiology
- Nutrition
- Nursing



Settings That Employ Telepractice

❖ Schools

✧ Shortage

❖ Clinics

❖ Nursing homes

✧ Specialists

❖ Rehabilitation centers

❖ Private homes

✧ Physical restrictions

✧ Distance restrictions

❖ Universities

✧ Supervision

❖ Prisons

✧ Safety

Populations

a) Children

b) Teens

c) Adults

d) Students

e) Military

f) Prisoners

g) Low Incidence Populations

h) ELL students

i) Rtl general education students

Meeting the Needs of the Clients You Serve Through the Service Delivery of Telepractice

- ✓ Clinical knowledge
- ✓ Technological knowledge
- ✓ Stakeholder acceptance
- ✓ Knowledge of the Law/Licensure Rules
- ✓ Knowledge of Reimbursement Policies
- ✓ Knowledge of Liability Policies
- ✓ Knowledge of Privacy Issues

Benefits of Telepractice

Addressing:

- ◆ Improved access to services
 - Distance, rural areas, weather, transportation, scheduling, mobility, physical access
 - Home, work, community
- ◆ Natural environment opportunities
- ◆ Continuity of care
 - Complex health and rehab needs
- ◆ Access to specialized clinicians
 - Shortage within a geographic area

Videoconferencing Enthusiasts often...

- ✓ Underestimate startup costs
- ✓ Underestimate buy – in issues
- ✓ Underestimate tech problems
- ✓ Underestimate reimbursement
- ✓ Underestimate the privacy issue
- ✓ Undervalue the safety issue

A Change

from the Department of Health Services (DSHS) to the Texas Department of Licensing and Regulation (TDLR).



- The new TDLR rule on the supervision of Licensed Speech-Language Pathology Assistants is effective October 1, 2016. The rule may be found at [Title 16, Texas Administrative Code, §111.50 \(g\)](#). The rule requires:
- at least eight hours of supervision per month;
- at least four of the eight hours must be direct supervision;
- at least two of the four direct supervision hours must be in person and onsite where the assistant is providing therapy; and
- up to six of the eight hours may be via telepractice/telehealth without applying for an exception.
- Direct supervision implies face-to-face observation of direct client contact at the work/clinic site. For two of the required four hours of direct supervision, the supervisor must be physically present where the therapy is occurring. For the remaining two hours, the supervisor may directly supervise the direct client contact via telepractice/telehealth. If a supervisor is not using telepractice/telehealth, all four of the direct supervision hours must be in person and onsite where the assistant is providing therapy.
- Examples of in-direct supervision are other monitoring activities, such as telephone conferences with the licensed assistant, evaluating the licensed assistant's records and correspondence, reviewing videotapes of the licensed assistant's therapy, and discussing the licensed assistant's performance with professional colleagues. Telepractice/telehealth may be used for in-direct supervision. For instance, a supervisor may wish to video conference with an assistant to discuss areas for improvement. This would be considered in-direct supervision because it does not occur during actual client contact.
- The proposed repeal of Subchapter O, §145.211 - 145.216 eliminates industry and public confusion by removing duplicate rules for the Speech-Language Pathologists and Audiologists program.

SUBCHAPTER V. TELEHEALTH

- 111.210 Definitions Relating to Telehealth
- 111.211 Service Delivery Models of Speech-Language Pathologists
- 111.212 Requirements for the Use of Telehealth by Speech-Language Pathologists
- 111.213 Limitations on the Use of Telecommunications Technology by Speech-Language Pathologists
- 111.214 Requirements for Providing Telehealth Services in Speech-Language Pathology
- 111.215 Requirements for Providing Telehealth Services in Audiology

The reference for this section of the presentation is the Speech-Language Pathologists and Audiologists **Administrative Rules** regarding Telepractice for Speech-Language Pathology and Audiology.

Administrative Rules
16 Texas Administrative Code,
Chapter 111 *Effective*
October 1, 2016

client



A consumer or proposed consumer of speech-language pathology or audiology services.

111.211 (1)

Client site



The physical location of the client at the time the services are being furnished via telecommunications.

111.211 (2)

consultant

- Any professional who collaborates with a provider of telehealth services to provide services to clients

• **111.211 (3)**



Facilitator



The individual at the client site who assists with the delivery of the telehealth services at the direction of the audiologist or speech-language pathologist

- **111.211 (4)**



Provider

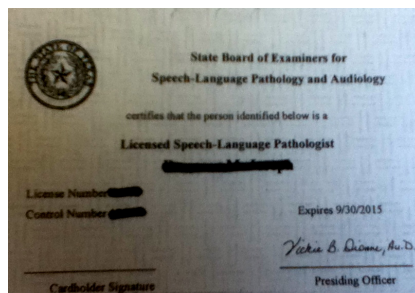


An individual who holds a current, renewable, unrestricted speech-language pathology, audiology license, or an audiology intern license under the Texas Occupation Code

- **111.211 (5)**



✓ Texas License



Provider site



The physical location at which the speech-language pathologist or audiologist delivering the services is located at the time the services are provided via telecommunications which is distant or remote from the client site.

- **111.211(6)**

Telecommunications

Interactive communication at a distance by concurrent two-way transmission, using telecommunication technology, of information, including, without limitation, sound, visual images, and/or computer data, between the client site and the provider site, and required to occur without a change in the form or content of the information, as sent and received, other than through encoding or encryption of the transmission itself for purposes of and to protect the transmission.

111.211 (7)

Telecommunications technology

Computers and equipment to include:

- a) Compressed digital interactive video, audio or data transmission
- b) Clinical data transmission (still image capture, store and forward)
- c) Other technology that facilitates the delivery of telepractice services

111.211 (8)

telehealth

- The **use** of telecommunications and information technologies for the **exchange of information** from one site to another for the provision of speech-language pathology or audiology services to a client or provider.



Telehealth services

The *application* of telecommunication technology to deliver speech-language pathology and/or audiology services at a distance for assessment, intervention, and/or consultation

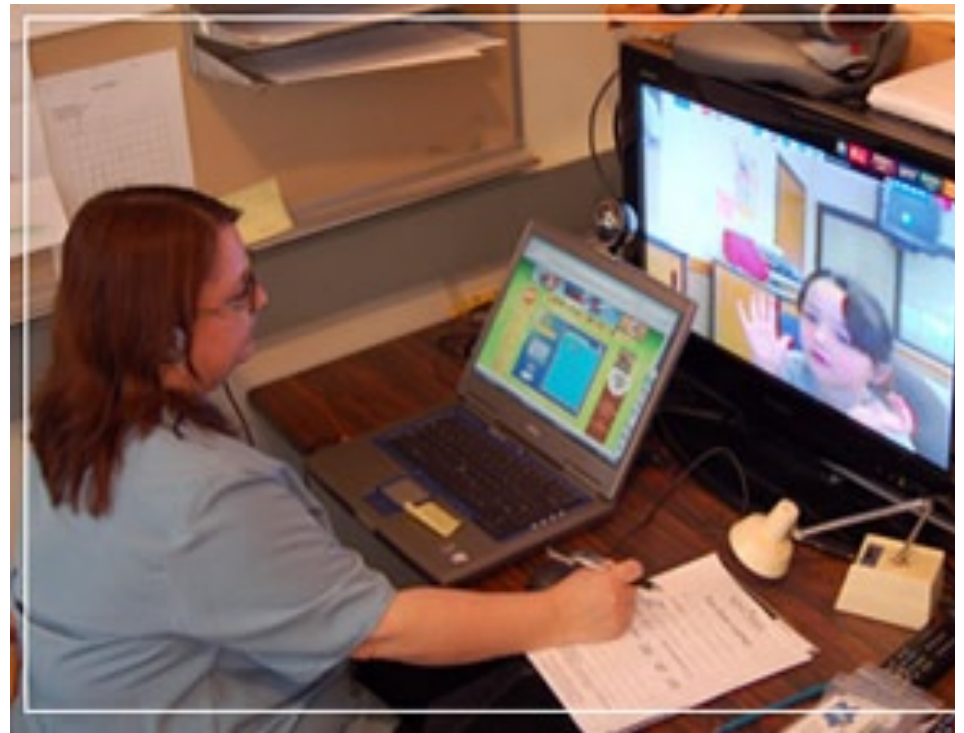


111.211 (10)

telepractice

The *use* of telecommunications technology *by a license holder* for an *assessment, intervention, or consultation* regarding a speech-language pathology or audiology client.

111.211 (11)



Telepractice services

The *rendering* of audiology and/or speech-language pathology services *through telepractice* to a client who is physically located at a site other than the site where the provider is located.

111.211 (12)



111.211

Service Delivery Models
of Speech-Language Pathologists

a) Telehealth may be delivered in a variety of ways, including, but not limited to those set out in this section

1. Store And Forward Model
2. Clinician Interactive Model

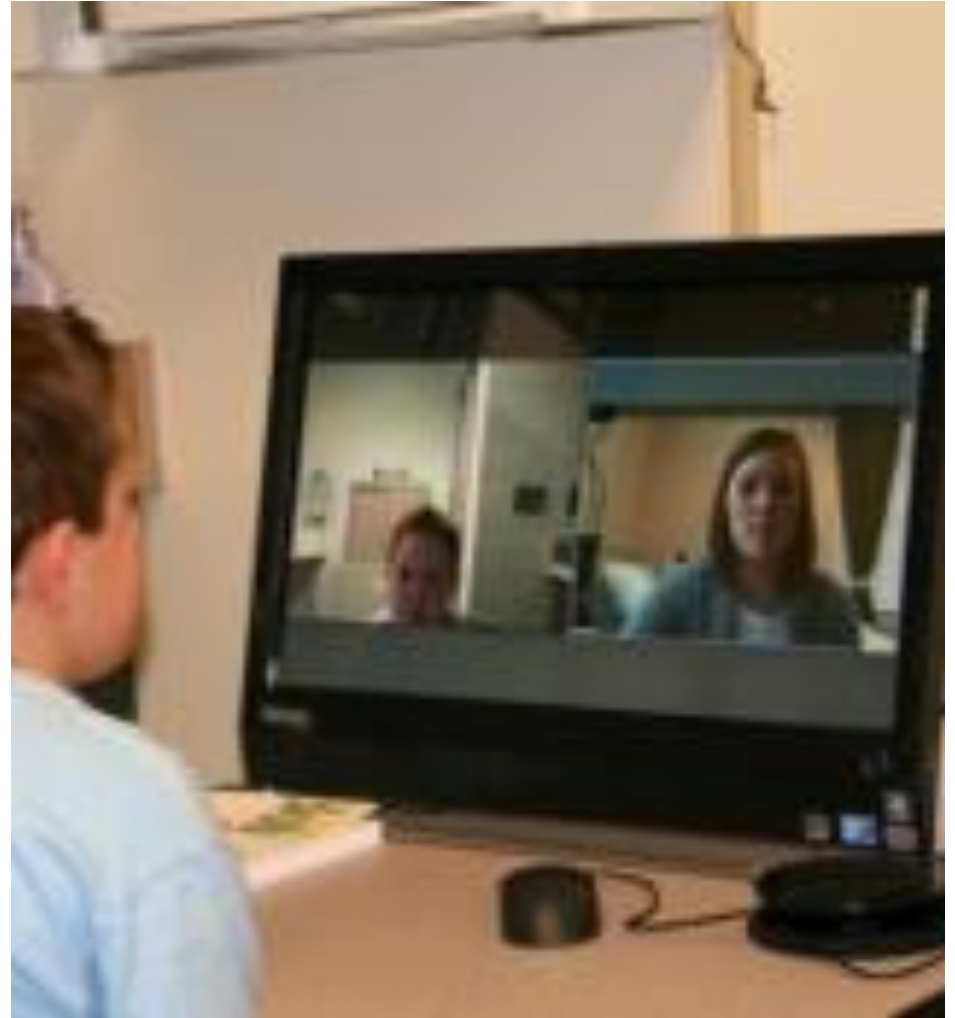
(a-1) Store and Forward Model

- Collect, store, transmit and interpret data and information
- Image based
- Information in the form of text, documents (homework) images, and diagnostic measurements
- Asynchronous transmission



(a-2) Clinician Interactive Model

- Live, real-time interaction between the client and the provider
- Video and audio based
- Synchronous transmission
- Typically via videoconferencing
- Sharing computer programs, apps, and documents



111.211 (b) Self monitoring/testing model

Client driven/with client responsibility



Typically image/data based

111.211 (C) Live versus stored data

Refers to the actual **data** transmitted during the telepractice. Both live, real-time and stored clinical data may be included during the telepractice

The requirements of this section apply to the use of telehealth by ***speech-language pathologists.***

111.212(a)

A provider shall comply with the commission's Code of Ethics and Scope of Practice requirements when providing telehealth services.

111.212 (b)

The scope, nature, and quality of services provided via telehealth ***are the same as that provided during in-person sessions by the provider.***

111.212 (c)

The ***quality of electronic transmissions*** shall be equally appropriate for the provision of telehealth services as if those services were provided in person.

111.212 (d)

A provider shall ***only utilize technology which they are competent*** to use as part of their telehealth services.

111.212 (e)

Equipment used for telehealth services at the clinician site shall be *maintained* in appropriate operational status to provide appropriate quality of services.

111.212 (f)

Equipment used at the client/
patient site at which the client or
consultant is present shall be in
appropriate ***working condition***
and deemed appropriate by the
provider.

111.212 (g)

The ***initial contact*** between a licensed SLP and client shall be at the same physical location to assess the client's candidacy for telehealth, including behavioral, physical, and cognitive abilities to participate in services provided via telecommunications ***prior*** to the client receiving telehealth services.

111.212 (h)

A provider shall be aware of the ***client*** or ***consultant*** level of comfort with the technology being used as part of the telehealth services and adjust their practice to maximize the client or consultant level of comfort.

111.212 (i)

When a *provider* collaborates with a *consultant* from another state in which the telepractice services are delivered, the consultant in the **state in which the client** receives services shall be the primary care provider for the client.

111.212 (j)

As pertaining to liability and malpractice issues, a provider shall be held to the same standards of practice as if the telehealth services were provided in person.

Rule
111.212 (k)

Some, but few, insurance policies specifically address telehealth services. Professionals are encouraged to contact their individual insurance providers for clarification before providing telehealth services.

A provider shall be sensitive to cultural and linguistic variables that affect the identification, assessment, treatment, and management of the clients.

111.212 (I)

Upon request, a provider shall submit to the board data which evaluates effectiveness of services provided via telehealth including, but not limited to, outcome measures.

111.212 (m)

Telehealth providers shall comply with all laws, rules, and regulations governing the maintenance of client records, including client confidentiality requirements, regardless of the state where the records of any client within this state are maintained.

111.212 (n)

Notification of telehealth services shall be provided to the client, the guardian, the caregiver, and the multi-disciplinary team, if appropriate. The notification shall include, but not be limited to: the *right to refuse telehealth services, options for service delivery, and instructions on filing and resolving complaints.*

111.212 (o)

Limitations

Limitations of this section apply to the use of telecommunication technology by speech-language pathologists.

111.213 (a)

Supervision of a licensed assistant and/or intern in speech-language pathology shall not be undertaken through the use of telecommunications technology ***unless*** an exception to this prohibition is secured pursuant to the terms of this section.

111.213 (b)

Exception:

SLP submits a prescribed alternate supervision request form for review by the department. The department will approve or not approve the plan.

If the exception is approved:

-only for 1 year in duration

If reason continues to exist after 1 year:

-the supervising SLP shall annually resubmit a request to be evaluated by the department. The department shall approve or not approve the plan.

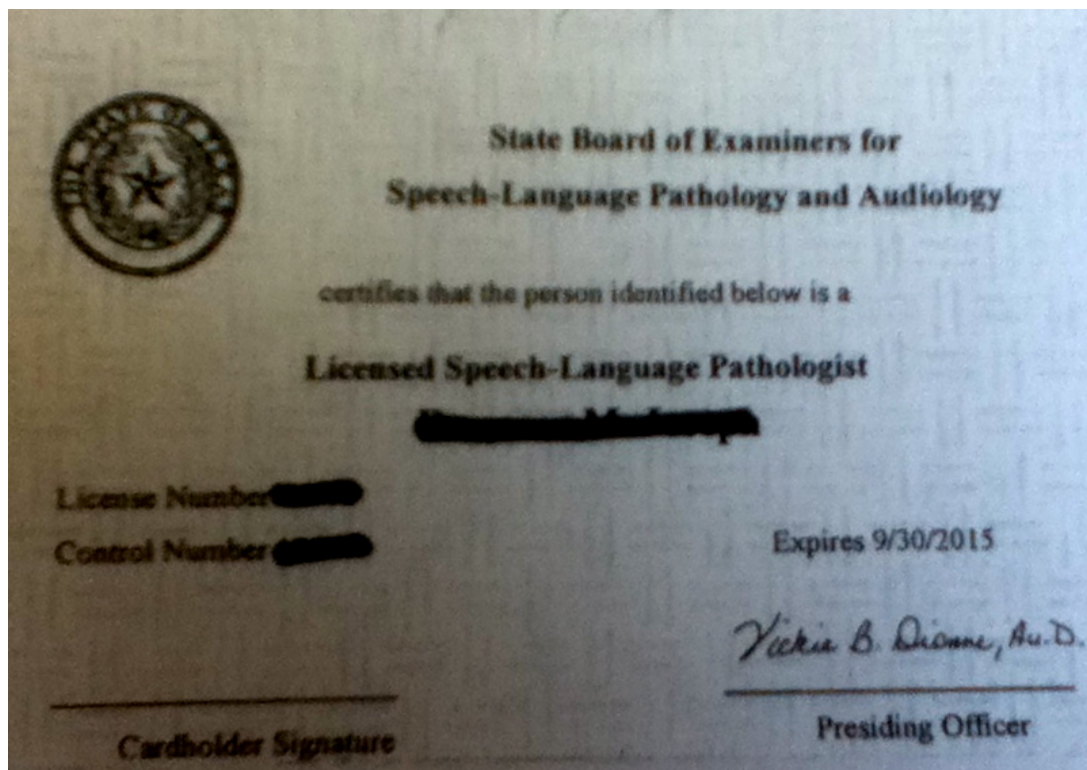
111.213 (c, d)

Telehealth services may not be provided by ***correspondence only***

-----but correspondence may be an ***adjunct*** to telepractice

111.213 (e)

A provider of telehealth services who practices in the state shall be licensed by the department.



111.214 (a)

A provider of telehealth services shall be competent in both the *type of services* provided and the *methodology and equipment* used to provide the service.

111.214 (b)

Requirements for providing telepractice services in **audiology** 111.215

- a. Provider in state of Texas
- b. Use only telecommunication technology that meets the definitions
- c. May utilize a facilitator at client site to assist the provider in rendering service
- d. Provider must be visible, audible, and able to see and hear the client and facilitator via telecommunications technology in synchronous, real time interactions. The provider is responsible for the actions of the facilitator and shall monitor the client and direct the facilitator at all times during the session.
- e. The provider shall verify the facilitator's qualifications and competence in each task at the client site ... and in the methodology and equipment the facilitator is to use at the client site.

Requirements for providing telepractice services in **audiology** 111.215

- f. At the client site the facilitator may only perform the following tasks:
 - 1. Services that require no license or permit where the provider has trained the facilitator.
 - 2. Tasks that the facilitator holds a license or permit to perform the task.

Requirements for providing telepractice services in **audiology** 111.215

- g. A provider shall not render telepractice services to a client in which the presence of a facilitator is required for safe and effective service to the client. The exception is if there is a qualified facilitator available at the client site during the session.
- h. The scope, nature, and quality of the telepractice service shall be commensurate with the services the provider renders in person at same physical location as the client.

Requirements for providing telepractice services in **audiology** 111.215

- l. The provider shall not render telepractice services unless the telecommunications technology and equipment at the client site and at the provider site are properly calibrated and in good working order. May only use equipment which the provider is competent to use.
- j. Provider and facilitator shall comply with all laws, rules, and regulations governing the maintenance of client records and client confidentiality. Documentation shall include date and nature of service performed by telepractice.
- k. Telepractice laws do not affect the applicability of any other requirements to which an individual is subject to in their profession.

Subchapter X

Fitting and dispensing of hearing instruments by telepractice

- 111.230 Purpose
- 111.231 Definitions
- 111.232 Requirements for Providing Telehealth Services for the Fitting and Dispensing of Hearing Instruments

Subchapter X 11.230

Purpose

Adopt rules to establish requirements for the fitting and dispensing of hearing instruments through the use of telepractice.

Subchapter X 111.231

Definitions

1. Acts..Texas Occupations Code, Chapter 401, relating to Speech -Language Pathologists and Audiologists. And Texas Occupations Code Chapter 402 relating to hearing instrument fitters and dispensers.
2. Client – consumer
3. Client site – where client is physically located.
4. Facilitator – individual at client site who assists with the delivery of telehealth services.
5. Fitting and dispensing instruments – measure human hearing to make selections, adaptations, or sales of hearing instruments(making impressions of ear molds, post fitting counseling, dispensing hearing instruments).

Subchapter X 111.231

Definitions

- 6. Hearing Instrument – any wearable instrument or device to aid, improve, or correct defective human hearing (Includes instruments, parts, and any attachments but does not include battery or cord.)
- 7. Provider – current Texas Audiology license, Audiology intern license, or license under Texas Occupations Code, 402 to fit and dispense hearing instruments without supervision.
- 8. Provider site – physical location of the provider of telehealth services which is distant or remote from client.
- 9. Telecommunications – interactive communication at a distance by concurrent two-way transmission using telecommunications technology to occur without change in form or content.

Subchapter X 111.231

Definitions

- 10. Telecommunications technology – computers and equipment
 - A. Compressed interactive video, audio, data.
 - B. Clinical data transmission – still-image capture; store and forward.
 - C. Other technology that facilitates the delivery of telehealth services.
- 11. Telehealth services – fitting and dispensing of hearing instruments through telepractice.
- 12. Telepractice – the use of telecommunications technology for fitting and dispensing hearing instruments.

Subchapter X 11.232

Requirements

- A. Qualify as a provider with a license from the state of Texas.
- B. Only telecommunications technology that meets the definition.
- C. A provider may utilize a facilitator at the client site.
- D. Provider at the provider site to be visible and audible and able to see and hear the client and facilitator In synchronous, real time interactions.
- E. Shall verify and document facilitator's qualifications, training, and competence.
- F. Facilitator may perform:
 - 1. Tasks the provider has trained the facilitator in where no license is required.
 - 2. Tasks in accordance with the license or permit.

Subchapter X 11.232

Requirements

- G. Not able to do telehealth services if the facilitator is required for safe and effective services where no qualified facilitator is available at the client site during the session.
- H. Scope, nature, and quality of telehealth services provided shall be commensurate with services rendered In person at the same physical location as the client.
- I. Technology equipment must be properly calibrated and In good working order.
- J. Initial contact with a provider shall be in person at the same physical location as the client.
- K. Comply with all laws, rules, and regulations governing the maintenance of client records including client confidentiality.
- L. Telepractice rules do not change the applicability of any other requirements or provisions of law regarding the practice of audiology.

Videoconferencing Platforms

BUSINESS CLASS

Buy the hardware

Telepresence

Big business

Hospitals

Universities

Very expensive

SOFTWARE BASED

Buy the software

Ongoing cost/fee

Vidyo, Vsee

The host
(provider) incurs
the cost. The
client connects to
the website
address given by
the host

PUBLIC DOMAIN

Download for free

Skype, FaceTime,
Google Hangouts

The provider and
client download
the software to
connect.

Equipment/Screen sharing

- Real-time interaction
- Visual “stuff” in the workspace
- Participation
- Work space view
- Data collection
- Prompts/Feedback/reinforcement
- Shared control
- Materials
- Screensharing
- Whiteboards/smart boards
- On-line presentations
- Text chat

Points to consider with videoconferencing platforms

- Cost
- Security
- Features
- Compatibility
- Bandwidth



The client and the provider must use the same videoconferencing platform to communicate

Hardware vs. software

Hardware=

Physical equipment

Computer

Web-cam

Microphone

Document camera

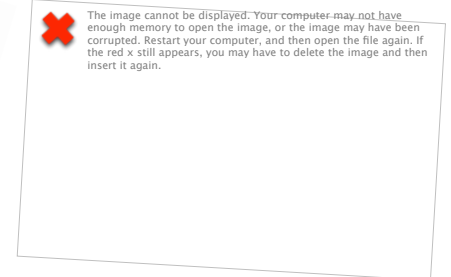
Software=

Program that allows the audio and video information to be transmitted through hardware systems

Equipment/Computer

Computer

- Desktop
- Laptop
- Tablet
- Smart phone
- Ipad
- Ipod touch



Which Computer is best?



- Is it dedicated?
- Is it static?
- Is it mobile?

Equipment/Peripherals

- Scanner
- Webcam/camera
- Microphone
- Document reader
- Television
- Headset
- Copier



Keyboard and mouse



Microphones



USB and FireWire hubs



Web cameras



Memory card readers



VoIP devices

Equipment: Camera/Mic/Monitor/Peripherals

- Display monitor
- Camera capabilities
- Microphone



- Built-in vs. External
- Desktop, laptop, tablet/ smartphone
- Pan-Tilt-Zoom (PTZ)
- Resolution-----
- Size, resolution, and dual display
- Document camera
- Speaker quality, headset, lapel, in computer
- Multi-site capability

Specialized peripherals/Networks

- May be a better solution for services performed by SLP Audiologist
- Higher resolution
- Lower latency (*period of delay between video/voice or live video transmission*)



- Specialized cameras with high resolution
 - Fiberoptic
 - Videoendoscopes
 - Video-otoscopes
 - Sound level meter

Sharing of treatment materials

Challenge=

to share the workspace and materials typical to face-to-face.

- Objects/Toys
- Pictures
- Flashcards
- Worksheets
- Videos
- Books
- Assessment stimulus materials
- Reinforcements



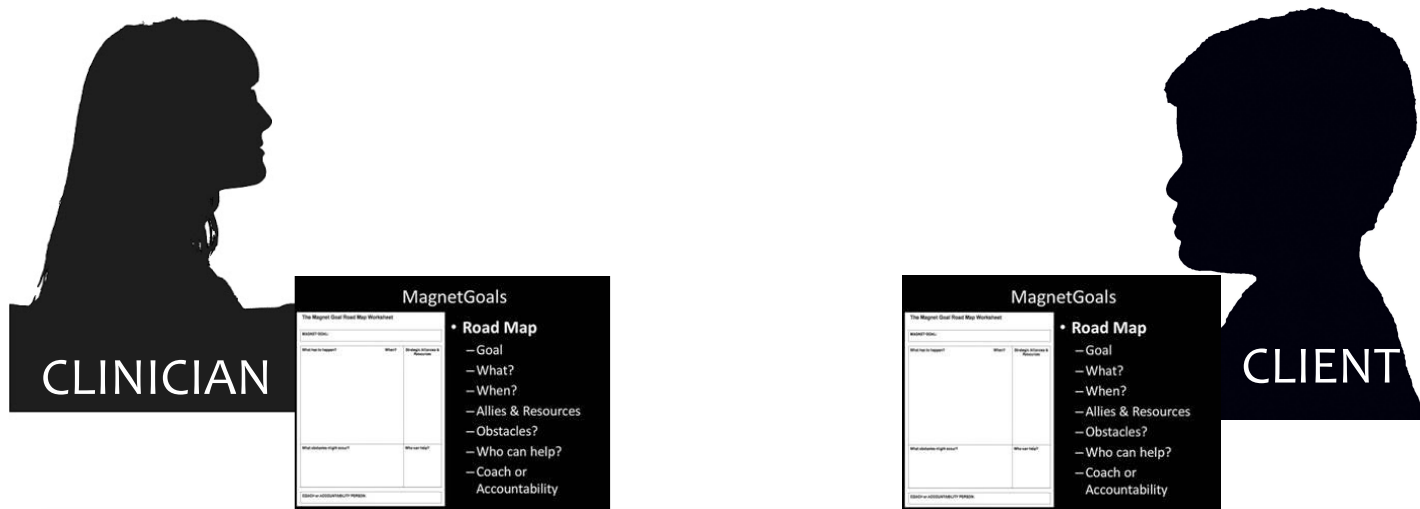
Example



Conversation



Example



Hard Copy
ACTIVITY
Send and print

Scan/send/print

example



Screen SHARED
ACTIVITY

Example

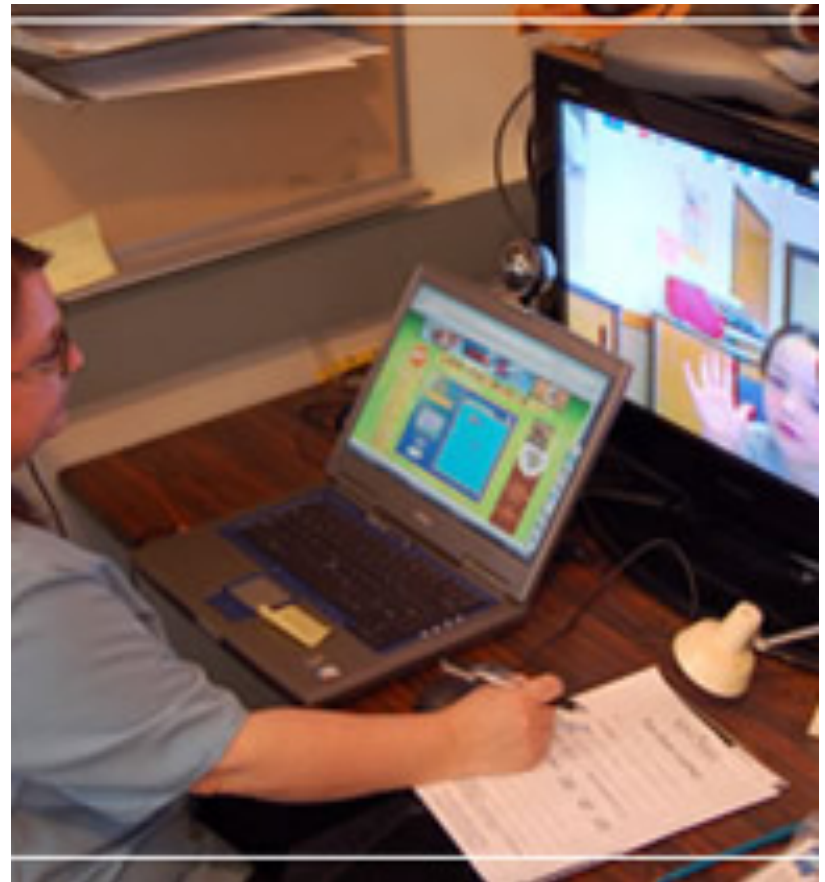


Directs



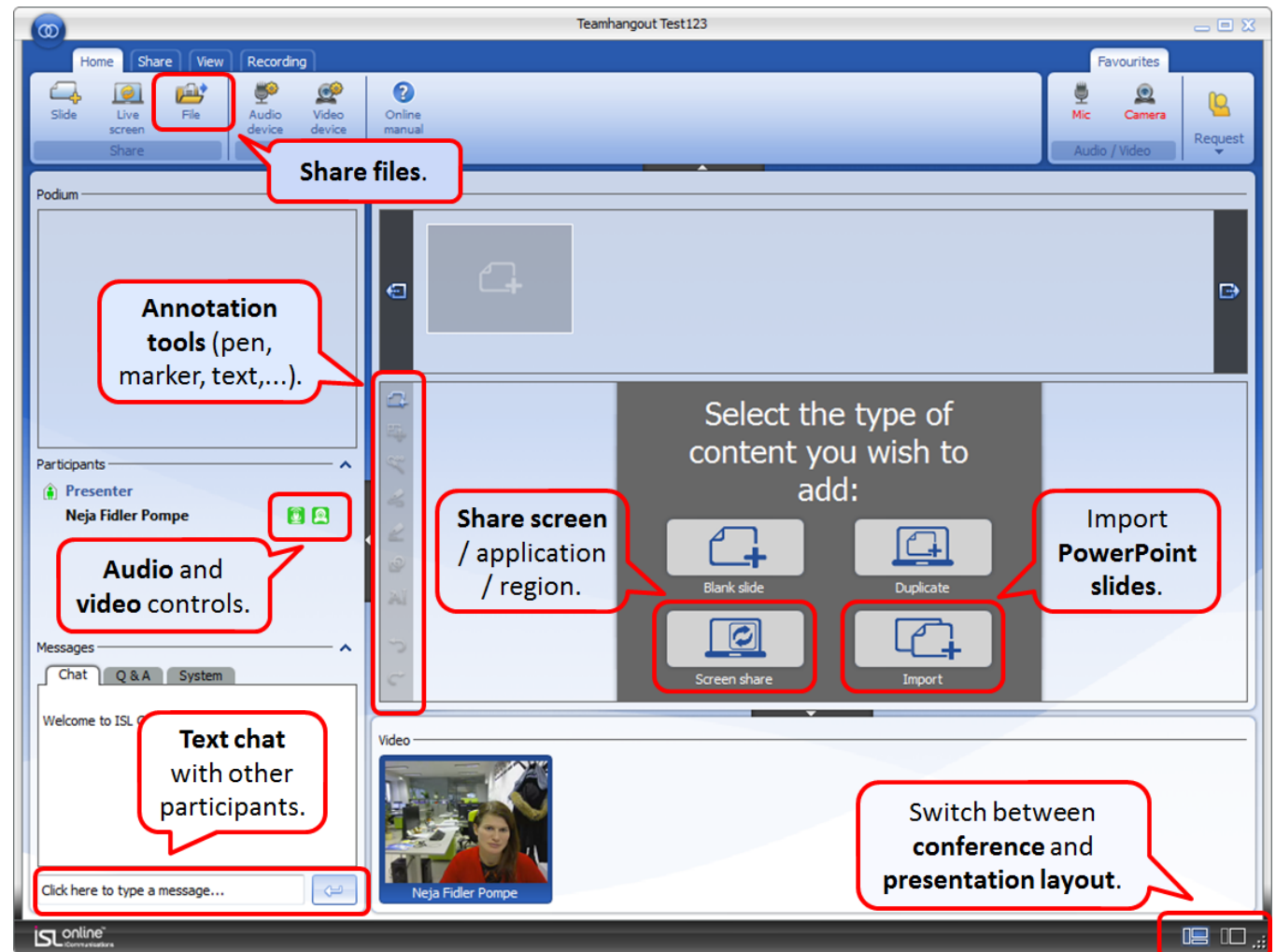
sharing treatment materials

- Duplicate materials at host and client site
- Manipulate materials viewed via document camera
- Web-based content
- Web-based interactive activities



Screen sharing

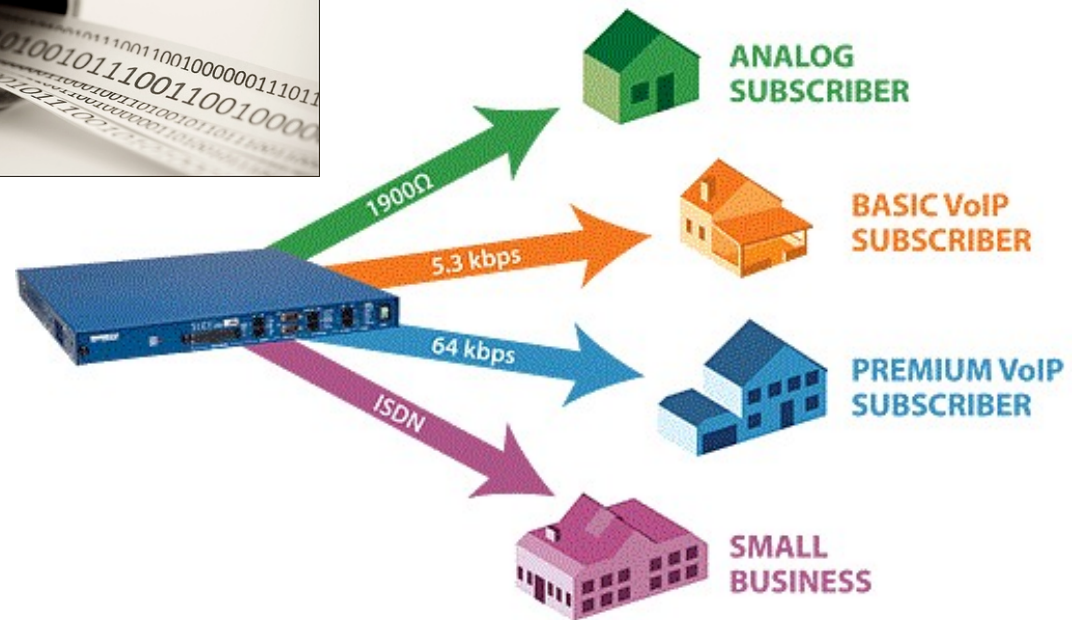
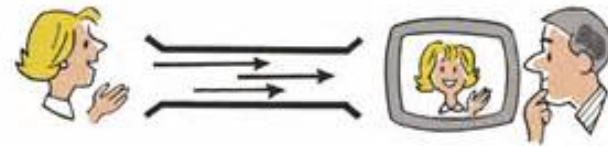
- Software editing manager allow participation
- Interactive
- Annotation tools



Bandwidth

Defined

the *volume of information per unit of time* that a transmission medium (like an Internet connection) can handle.

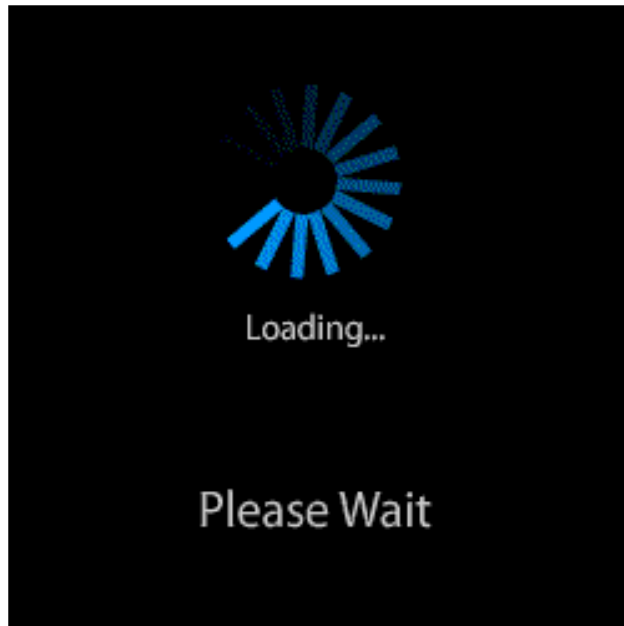


Optimum bandwidth for telepractice

- ◆ Bandwidth is a rate of data transfer, or bit rate, measured in bits per second. It shows the amount of information that your computer can send and receive to and from the internet. In other words, it indicates the speed of your connection. Poor bandwidth can lead to both visual and auditory delays or screen freezing.
- ◆ Minimum bandwidth **384 Kbps** to establish video/auditory clarity
- ◆ [SpeedTest.net](https://www.speedtest.net)

Insufficient Bandwidth

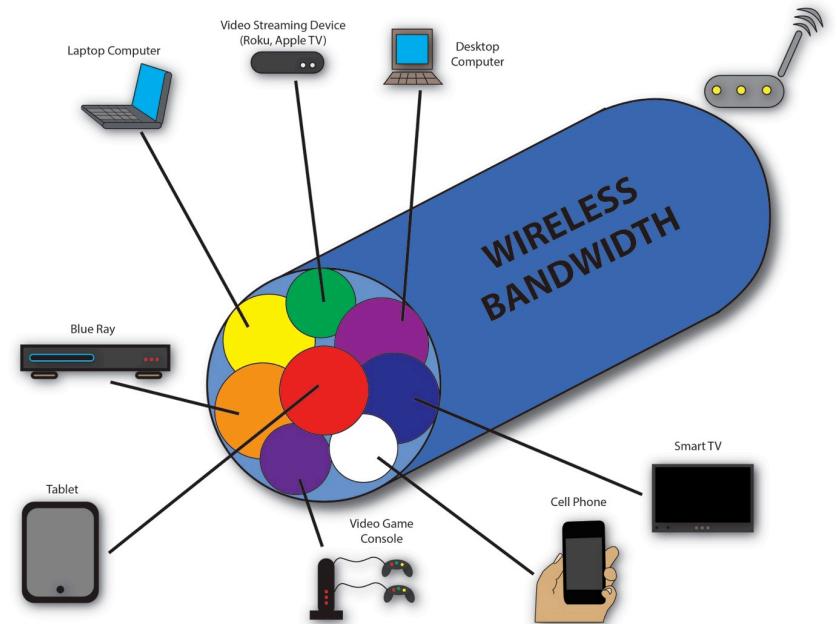
- What it looks like



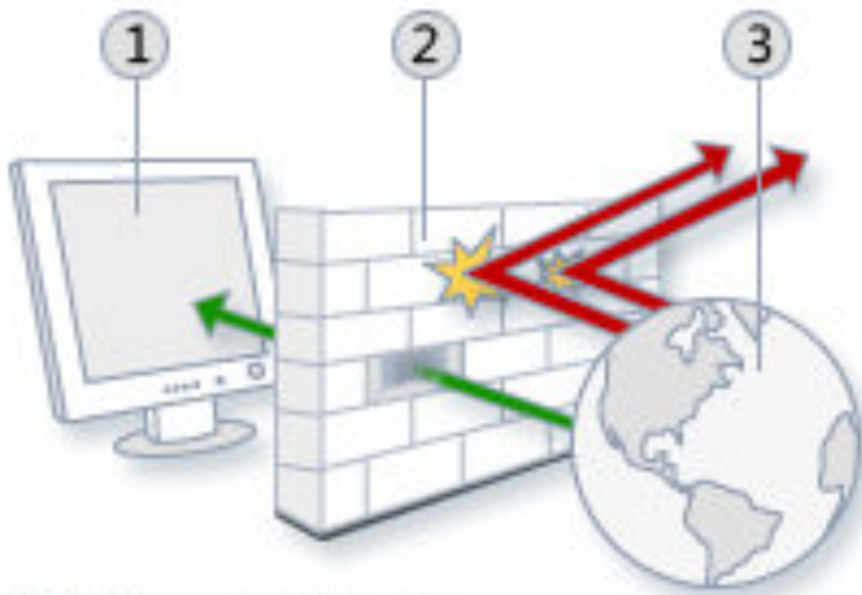
- Video, audio delays
- Jitter
- Loss of data
- Buffering
- Interruption of normal turn taking in conversational discourse

Bandwidth reduction issues

- #/users
- Peak hours in network
- High definition (HD)
- Dual-streaming
- Multi-point calls
- Higher connection speeds needed
- Availability and Connectivity
 - Cable
 - Hot spot
 - Dial up
 - 4 G vs 3 G



Firewalls



① Your computer

② Your firewall

③ The Internet

- In network
- Agency to agency
- Private home security controls

Security



- Encryption
- Passwords
- Meeting numbers
- Virtual private network (VPN)
- Hardware/Software firewalls

Problem solving

- Backup plan
- Telephone
- Email
- Text
- Chat
- Reschedule
- IT support
- Workbook



Problem Solving

- If sharing bandwidth, schedule sessions during low volume internet use
- Use a dedicated internet line where there is no sharing of bandwidth.
- Close all other programs that may be open on the computer.
- Use a Bandwidth Adjustment Tool and set to slowest level.
- Turn unnecessary cameras off
- Monitor/Upgrade your internet connection with the ISP (internet service provider.)



Be able to answer these questions



- What operating system?
- What browser?
- What VoIP software?
- Dedicated/shared bandwidth?
- How much bandwidth?
- What else is running on the network?
- What applications are running/open?
- What ISP?
- Network Firewall?

Basics

- Operating system-An **operating system** (OS) is **system** software that manages **computer** hardware and software resources and provides common services for **computer** programs. Common examples are Microsoft Windows, Linux, and Mac.
- Browser-A Web browser is a software program that interprets the coding of the World Wide Web. The World Wide Web is written in *Hypertext Markup Language (HTML)*. Popular examples are Internet Explorer, Firefox, Safari and Chrome.
- Bandwidth-The term bandwidth has a number of technical meanings but since the popularization of the Internet, it has generally referred to the volume of information per unit of time that a transmission medium (like an Internet connection) can handle. An Internet connection with a larger bandwidth can move a set amount of data (say, a video file) much faster than an Internet connection with a lower bandwidth.
- App-a self-contained program or piece of software designed to fulfill a particular purpose; an application, especially as downloaded by a user to a mobile device.
- Platform-The underlying hardware or software for a system
- Software-the programs used to direct the operation of a computer
- Hardware-the mechanical, magnetic, electronic, and electrical devices comprising a computer system, as the CPU, disk drives, keyboard, or screen.
- Encryption-the process of converting information or data into a code, especially to prevent unauthorized access:
- Firewalls-an integrated collection of security measures designed to prevent unauthorized electronic access to a networked computer system.
- VPN-virtual private network
- Firmware-Firmware is software that is embedded in a piece of Hardware.