

Naturalistic Instruction

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WHAT'S COVERED

This lesson will explore the naturalistic instruction by defining and discussing the following:

1. Four Main Characteristics of NET
2. General Components of NET
 - a. Naturalistic Instruction Delivery
 - b. Experiential Instruction
 - c. Following the Motivation
3. NET Prompting Strategies

1. Four Main Characteristics of NET

Here are four main characteristics of naturalistic teaching strategies.

1. Focus on use of patient's current motivation/MO

- Patient directed; the behavior technician follows the patient's lead.
- If the patient's motivation changes, the activities follow.
- Activities may be embedded within regular daily activities.

🔗 **EXAMPLE** Camille is hungry and wants strawberries, her favorite snack. While in the kitchen prepping the snack, the behavior technician incorporates manding, objects, colors, functions, and quantitative concepts as natural opportunities arise within the activity:

- Manding/requesting: "I want strawberries."
- Objects: "What is it?" and pointing to plate.
- Functions: "What do you cut with?"
- Quantitative Concepts: "Do you want more or less?"

2. Functional relationship between the task and the reinforcer

- Reinforcers given are directly related to activity, not arbitrary.
- Natural consequences are provided for responses.

IN CONTEXT

Let's explore some examples of this functional relationship between the task and the reinforcer in practice.

- Judah mands for juice and is given juice.
- Savannah's dad draws fun pictures as she recalls objects by color (e.g., "Let's think of some red things.")
- Felicia practices quantities while making her snack.
- Michel identifies the items needed to go swimming, then goes to retrieve the items and gets to go to the swimming pool outside.
- Lamond mands, "I want hot pizza, please," and the pizza gets warmed in the oven.
- Kaysen uses problem solving skills to create a tent from a blanket and chairs, and then gets to play "camp out" with his play date.

Video Transcription

Are you hungry?

Mm-hmm.

Do you want a snack?

Mm.

What do you think you want?

Can I have a bar?

Mm, you could have a bar. Oh, wait, look. Or you can have a sandwich. Or I'll let you have a s'more.

S'more!

OK, come here.

I get that.

Wait, wait, wait. So first, you need to help me do it. So what do we need to get?

OK.

Wait. Tell me first. What do we need to get?

Marshmallows.

OK, marshmallows.

Chocolate.

Chocolate.

Graham crackers.

Mm-hmm.

And a microwave.

We could do a microwave. What else could we use?

The stove?

How would we use the stove?

Maybe a pan?

How do we do it when we're camping?

Put it on a stick.

OK. So we could use a stick, or what else could we do?

A stick.

But what could we put it on if we don't have a stick? Wiggly, sit up.

A knife?

A what?

A knife.

We could, yeah. Or you know those long things are called? Sit up. Those long skinny things? It's called a skewer. So--

Do we have skewers?

We might. We might. OK, so we need marshmallow, chocolate, graham cracker--

And heat.

And heat. That's right. OK, all right, let's go.

3. Taught in the patient's environment in a playful manner

- Include use of functional stimulus items.
- Have more naturalistic transitions.
- To an untrained individual, it may appear as if the behavior technician and patient are just playing.

➤ **EXAMPLE** Sofia learns to request using color-object combinations while blowing up balloons and letting them fly with the behavior technician.

➤ **EXAMPLE** While building a race track in the backyard the behavior technician incorporates targets from the objects, functions, features, and attributes lessons.

Video Transcription

Mouth. Oh a mouth. Where does that mouth go? Oh nice job. So he has hands, eyes, nose, and a mouth. What else does he need?

Those.

Does he need ears? Oh there's one ear. What else does he need?

Shoes.

Shoes. Where is his shoes? You're going to put feet? OK What else does he need?

Hat.

Oh a hat. Which hat is he going to put on? That one?

4. Focus on reinforcing any appropriate attempt to respond

- Shaping leads the patient to emit the correct response.
- Less focus on “correct” vs “incorrect” responses.

➤ **EXAMPLE** While building with blocks, Ricardo's behavior technician has him name various colors, count, and give different quantities. When Ricardo makes an error, the behavior technician does not give an informational “no” but instead prompts him for the more correct response. The behavior technician may say, “Hmm, let's count those again,” etc.

Video Transcription

OK. OK. What did Megan say was her favorite animal?

Dogs.

OK. So do I know what animal Megan likes?

What Megan's--

Do I know what animal she likes?

No.

Why don't I know?

[INAUDIBLE]

Do you know what animal she likes?

She likes dogs.

And how do you know that?

Because she tell me.

Oh, she told you, so you know. OK. Do I know what her favorite animal is?

No.

Think again.

OK.

Where was I when you were talking to her? Was I in here, or was I out there?

Here.

I was in here. OK. Could I see Megan?

Yes.

Can I hear Megan?

Yes.

OK. So when she told you that, could I hear what she said?

Yes

OK. So do I know what kind of animal she likes?

Yes.

How come?

Because you hear it.

I heard her say it to you. OK. What about these guys? Do they know what kind of animal she likes?

What kind of animal?

No. Do they know? Do they already know?

Yes

How come?

Because Megan told me.

And where were they?

In here.

They were in here. That's right. OK, last question, I promise. OK. Does Ramiro know what kind of animal Megan likes?

No.

No. Why not? How come he doesn't know?

Because he didn't hear it.

He didn't hear it. Where was he?

He was somewhere out there.

You are so smart. Seriously, that was awesome. You're right. Ramiro wasn't in here. He didn't hear what we were talking about.

2. General Components of NET

Here are some of the general components of NET:

- Naturalistic instruction delivery
- Experiential instruction
- Following the motivation of the patient

2a. Naturalistic Instruction Delivery

These SDs are given in a more natural, conversational language. “S voice” is faded to a natural tone, intonation, and volume.

It may be necessary to start first with mastered SDs within NET activities and then gradually fade to more natural instructions, using a pairing procedure or a mastered SD as a prompt.

SDs are often interspersed with other comments and instructions, not repeatedly presented in the same way.

➤ **EXAMPLE** “I wonder how many wheels it has?” rather than “Count, how many?” or “Wow, I wonder what that is?” rather than “What is it?”

Video Transcription

What's your favorite color? I like all these.

I like purple.

Purple? I think pink is my favorite. OK, which character are we going to make? Show me again. That? OK, what do we need first?

First, we does the foot.

The foot or the feet?

The feet.

The feet. OK, oh, that's a good choice. I like that one. This one looks like it might be a little big. Is there a different one we can use? That's it. That's perfect. OK, now what color do we need? What goes in the middle?

[INAUDIBLE]

Well, first, what goes in the middle?

Pink.

Pink. Can you find a pink one? What shape is that? Is it a pink circle? What shape is that?

I don't know.

You don't know? Is it a circle?

No.

Is it a triangle?

[INAUDIBLE]

Yeah, that is a-- is it a--

It's a rectangle.

A rectangle? Whoa. That was really smart. Wow, what color did you just put on?

Yellow.

Oh. We got it. There's a lot more to keep building.

Stars.

I don't see any stars. Do you? Oh, there they are.

They're right here.

How many stars do you need?

We need two.

How many star blocks? Two star blocks. Where could the other one be? There it is. You are doing really amazing.

2b. Experiential Instruction

Experiential instruction involves embedding key concepts into naturally occurring situations where it is most functional for the patient to use the skill. Learning occurs in the environment, not at a table.

IN CONTEXT

Here are several "real world" examples of experiential instruction.

While coloring, the patient indicates the need for a new crayon. The behavior technician presents a selection of several crayons and waits. The patient mands/requests, "I want a yellow crayon."
(Manding/Requesting, Colors)

While playing grocery store, the patient and behavior technician make a list of items to buy. The behavior technician asks, "What do you think are some foods we might need?" The patient responds, "Apples, cookies, and peanut butter." (Categories)

While playing outside, the patient asks the behavior technician to go for a bike ride. The behavior technician asks, "Ok, what things do we need for a bike ride?" The patient answers, "Shoes, bike, and my helmet." They go retrieve the items and go for a bike ride. (Functions, Planning)

During snack time, the behavior technician calls Josephina's name. Josephina looks up and the behavior technician asks, "Do you want more ketchup?" Josephina says, "Yes," and gets more for her french fries. (Eye Contact, Yes/No)

Video Transcription

OK. I think they're ready for the oven, right?

Yep.

You want to put them in yourself?

Mm.

What do you think?

Maybe.

Maybe?

Yeah.

What do you want to talk about first, or figure out first?

The safety.

OK. Because you were talking to me earlier about how it's hot, right? It's super hot. What are the parts of the oven that are OK to touch? Is it--

The handle.

The handle's OK. The handle's not going to be hot. So that's OK to touch without something to protect your hand.

But not the inside.

Right, not the inside. So what do you think you might need to do before you do anything--

Near, or when you're opening or putting something in or taking out, what do you think you need to do?

Oven mitts.

An oven mitt, you're right. So I saw one in that drawer, so go ahead and take it out. Yeah, perfect. So you're left-handed, so probably put that on your left hand, right? OK. So go ahead and, yeah, pick the pan up with the oven mitt. OK, good. Can you get it with one hand, do you think? Or do you need-- you got it. OK, so take your other hand and open up the door.

I'm scared it's going to be really hot.

You're OK. I'll help you. OK, now slide that in. Yep, you're OK. Here, I'll help you. You're OK. It's just giving off heat, but as long as you don't touch anything, you're fine.

I'm still [INAUDIBLE] touching that.

Let's turn it this way. OK, now close the door.

I was so close to touching this [INAUDIBLE].

Yeah. All right, so you did it. Now, when the brownies are done and we take them out, what do we need to make sure we have? Yeah, the oven mitt. Whenever you're taking something out of the oven or putting something in the oven--

You need to have an oven mitt.

You need to have an oven mitt for sure. OK? All right, good, we'll remember that. Perfect.

2c. Following the Motivation

NET should follow the motivations and interests of the patient, to these ends:

- Increases motivation
- Targeted skills become more functionally relevant
- Primarily patient directed, but also instructor-directed at times, such as contriving learning opportunities, implementing behavior intervention plans (BIPs), and guiding interaction by presenting interesting activities

Note, this does *not* mean that we allow the patient to engage in unsafe, problematic, or challenging behaviors during NET.

3. NET Prompting Strategies

As with DTT, prompting strategies vary depending on

- the patient
- generalization or teaching new skills
- rote responses or conceptual targets

Indirect prompts should be used so the patient can discover the answer through critical thinking. This helps promote skills to be used in novel situations. Direct prompts should be avoided because it gives the patient the answer.

Let's take a closer look at the seven types of NET prompts:

1. *Rephrasing the Question*

The behavior technician re-phrases the \mathcal{S}^D using different language or terminology. Rephrasing the question is adding more detail to the question to allow the patient to figure out the answer on their own.

➦ **EXAMPLE** The behavior technician asks, “How would Dad feel if you gave him football tickets?” and then re-asks, “If you were giving Dad a birthday present, and you gave him his favorite thing, tickets to a football game, how do you think he would feel?”

2. Leading Questions

The behavior technician asks a question or series of questions, or gives a series of statements that guide the patient to the correct response.



It is important to note that behavior technicians should never give the correct answer as a part of the question or statement.

➦ **EXAMPLE** The behavior technician presents an SD: “Why is your shirt wet?” after the patient comes inside from a rainstorm.

Questions: The behavior technician then asks, “Where did we just come from? What is happening outside?”

Statements: “Think about where we just came from. Look out the window.”

Video Transcription

[SWEEPING DEBRIS] Hey, Gary. How's it going?

Oh, look what I found.

Oh, my gosh! What is it?

It's a screw.

Holy cow. What do you think would happen if we left it on the ground?

Someone probably would have tripped on at some point.

Well, they-- yeah, maybe they'd trip on it, but what do you think is more likely to happen? I don't know if somebody would trip on it because it's pretty small, right?

Right.

But what could happen if somebody-- if we left this on the ground? What do you think?

Somebody could get it stuck to their shoe.

Yeah, they might. So if they stepped on it, right--

Yeah.

--it could stick in their shoe. But even worse, what might happen? If it got all the way through their shoe,

what could happen?

It could get inside them, stuck inside.

Right. What if somebody wasn't even wearing shoes? What could happen?

It could've cut their foot.

Yeah, absolutely. It could stab the bottom of their foot, right?

Yeah.

OK, so what do you think we should do?

We should probably either put it in a tool box or throw it out.

OK, yeah, I think you're right. Those are great ideas. I don't really know where it came from. So probably the better solution would be just put it in the trash, right--

Yeah.

--to throw it out? OK, do you want me to go do that, or do you want to go do it?

You can do that.

OK, I'll go do it. You finish up sweeping, OK?

OK.

All right, thanks.

[SWEEPING DEBRIS]

3. Acting Confused

The behavior technician pretends not to know information that they do know to get more information from the patient. You can act confused by using a facial expressions of confusion or by specifically saying something like, "I haven't heard of that before," or "I don't know."



This is different from leading questions.

🔗 **EXAMPLE** The behavior technician pretends he does not understand when the patient says, "It was big," to describe the Statue of Liberty, by giving a look of confusion and saying, "I've never seen the Statue of Liberty," to have the patient give more descriptors.

Video Transcription

Oh, your 3DS. I'm so sorry, your electronic.

I was at Cracker Barrel, and I caught a legendary with a Luxury Ball.

What's a legendary?

A legendary is like-- in Jackson's book, it says legendary, and well, you can find some at-- Number one, you can find some by flying with some Latios or Latias--

Wait, where do you fly? Is this in real life, or is this--

No, it's on my game.

Oh, what game?

Pokémon Alpha Sapphire and Omega Ruby.

Oh, OK. That's probably why I don't know what a legendary--

4. Choices

The behavior technician gives the patient answer choices.

➞ **EXAMPLE** The behavior technician asks, “Does your sister look confused or frustrated?” when the sister is acting frustrated.

5. Hypothetical Scenarios

The behavior technician tells a made-up story similar to the target concept to guide the patient to the appropriate answer.

➞ **EXAMPLE** The behavior technician asks, “What should you do when you feel annoyed at your brother?” then makes up a story about the patient and their brother playing and unpleasant consequences, such as the brother getting upset and leaving, when the patient reacts inappropriately.

6. Experiential

The behavior technician “puts the patient in another’s shoes” and allows the patient to experience what another person is experiencing. This is called a sensory perspective taking program.

➞ **EXAMPLE** The behavior technician asks, “Can Grandma hear us talking?” while Grandma is in the kitchen and they are upstairs in the patient's room, and then takes the patient downstairs to the kitchen while the sister talks upstairs in the patient's room.

7. Indirect Visual or Textual Description

The behavior technician draws a social story, social comic strip, or illustration, or writes a list or description of

a target concept.

➦ **EXAMPLE** The behavior technician says, “What does 'You hit the nail on the head' mean?” and then draws a social story of someone solving a problem perfectly.



THINK ABOUT IT

Come up with your own visual to describe an idiom. Can you create a social story to demonstrate bullying?



SUMMARY

In this lesson, you learned about the **four main characteristics of NET**: focus on use of patient’s current motivation/MO; functional relationship between the task and the reinforcer; taught in the patient’s environment in a playful manner; and focus on reinforcing any appropriate attempt to respond. You also explored the **general components of NET**, which are **naturalistic instruction delivery**, **experiential instruction**, and **following the motivation** of the patient. Lastly, you learned the seven types of **NET prompting strategies**, which are rephrasing the question, asking leading questions, acting confused, providing answer choices, providing hypothetical scenarios, creating an experiential context, and creating an indirect visual or textual description of a target concept.