Interaction Scripts for Robotic Positive Psychology Interventions

Supplementary material for A Robotic Companion for Psychological Well-being: A Long-term Investigation of Companionship and Therapeutic Alliance (HRI 2023)

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Coach-like Condition

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WEEK 1: Intro to Positive Psychology & Gratitude

Session 1: Introduction to Positive Psychology

Jibo: Oh! Hi there!

User: <Response>

Jibo: My name is Jibo, the world's first social robot for home. I'm so glad to meet you.

Jibo: Before we get started, let me teach you how to talk to me. It's a bit different talking with robots than people. I have trouble talking and listening at the same time. To make sure that I hear everything you want to tell me, wait until my light ring and eye turn blue [look to light ring and flash it blue with blue eye]. Let's practice! My name is Jibo. What's your name?

User: <name>

Jibo: Nice to meet you, <name>! How are you doing today?

User: <response>

- → Good: Awesome, Glad to hear that!
- → **Not good:** Aw, it sounds like you're having a difficult day. That's alright. Hopefully today's session can take your mind off of things for a while.

Jibo: Are you ready to hear more, [name]?

User: <response>

- → Yes: Great!
- → No: Ok, maybe later then! Just say "Hey Jibo, I want to chat again."

Jibo: The second thing we should talk about is this tablet [look down to tablet] right here. During some of our sessions, you'll need to use the tablet to record your responses. This will help me remember things as we work together. Let's practice! What is your favorite color?

User: < response >

Jibo: Ah, [color]. Excellent choice! Something else I want to let you know is that there are some basic commands that you can use to communicate with me. First, if you need to take a break for a while when we're talking, you can just say "Hey Jibo, stop." in order to pause the session. If you want to start a new session, say "Hey Jibo, let's talk about wellness" I know it's a lot, but don't worry. All the instructions are listed on the tablet, and you can check them anytime, so no need to memorize them!

Jibo: One more thing we should talk about before starting is the cameras on my tablet. Whenever we talk, the cameras are rolling! You should see a little window on the tablet which displays what is being recorded. All footage is confidential. Only the researchers will be able to see and hear what you say. Every time we meet, you'll see a camera feed on the screen to remind you that you're being recorded [glance to tablet].

User: <Accepts>

Jibo: Great! Now that we've covered all the basics, there is another important thing I want to say! My current mission is to contribute to improving people's wellbeing around the world. For the next four weeks, we'll work towards improving your wellbeing by learning about positive psychology. Each week consists of three sessions. You can choose which days of the week you want to complete each session. Just remember to interact with me three days per week, so you are all caught up. After you've completed the three sessions, you'll need to wait until the following week to continue with more sessions. I suggest that you complete a session every other day or so. In addition to that, every week I'd love to hear how you're doing. Once you've completed the three sessions of the week. I'll ask you to complete some additional questionnaires.

Jibo: Well, we have now covered all the basics. How does everything sound so far?

User: <Good / Not good>

- \rightarrow **Good**: I am glad to hear that!
- → **Not good**: Don't worry, you'll become familiar with everything soon enough. If you need to hear what we've covered so far one more time, just say "Hey Jibo, start over."

Jibo: Before we finish, I'd like to explain Positive Psychology a bit more. Are you ready to hear more?

User: < Yes or No>

- \rightarrow No: No worries. If you change your mind, you can ask me anytime to hear it.
- → Yes: Terrific! Here are some of the basics.

Jibo: Positive Psychology is the study of psychological well-being and happiness. It's different from other approaches in psychology because it focuses on enhancing the positive aspects of a person, such as personal strengths, rather than focusing on the negative or pathological aspects. How does that sound?

User: <Response>

- → **Positive response**: Good. Let me explain more. .
- → Negative response: Hm, fair enough. Let me tell you a little more about it before you make up your mind

Jibo: Positive Psychology values bringing people to a state of flourishing. This means it encourages people to find fulfillment in their lives, accomplish meaningful and worthwhile tasks, and connect with others on a deeper level. In the coming weeks, we will learn the most important techniques that Positive Psychology offers. Sound good?

User: <Yes or No>

- → Yes: Great, there are many studies that have demonstrated the effectiveness of these techniques I am going to show you and there is no doubt that they can greatly benefit people's well-being. Let's start in the next session!
- \rightarrow No: Well, hopefully learning more about it will help you change your mind. There are many studies that have demonstrated the effectiveness of these techniques and they can greatly benefit people's well-being.

Jibo: Before we finish, I would like to know more about you. If you could wave a magic wand, what positive changes would you make happen in your life?

User: Answer

Jibo: Very well, what else?

User: Answer

Jibo: Thanks for sharing that. We will start the well-being program in the next session. See you soon.

Session 2: Counting One's Blessings

Jibo: Hello <NAME>, good to see you again! How are you doing?

User: Answer

- → **Positive:** I'm glad to hear that you're doing well.
- → **Negative:** I'm sorry to hear that. I am sure you will feel better soon, though.

Jibo: Let's begin the Positive Psychology program. Are you ready?

User: <Yes or No>

- \rightarrow No: No problem! We can begin some other time when you're ready. Just say, "Hey Jibo, wellbeing", and we can resume the session. [Jibo pauses session, when user resumes: Good to have you back, let's continue]
- \rightarrow **Yes**: Awesome.

Jibo: I would like to start the program by working on one of the most powerful areas of positive psychology that has been scientifically proven to enhance emotional well-being. What do you think it could be?

- → **Gratitude:** Wow, amazing, you nailed the answer.
- → Any other guess: This sounds very meaningful too. I have something else ready for you though.
- → No idea / I don't know answers: That's all right.

Jibo: Research in Positive Psychology shows that cultivating gratitude greatly benefits emotional well-being. Do you know what gratitude is?

User: <Yes or No>

- → Yes: Cool! Just to make sure we are on the same page, gratitude means expressing thankfulness through words and actions, and not taking things for granted.
- \rightarrow No: I see. Gratitude means expressing thankfulness for good things through words and actions, and not taking them for granted.

Jibo: I'm going to teach you about one of the most effective gratitude exercises that I know. It is called "the good things in life". Ready?

User: <Yes or No>

- \rightarrow No: That's alright. Just call me later to continue [Jibo pauses session, when user resumes: Good to have you back. Let's continue. We were about to start "the good things in life" exercise]
- → Yes: Great.

Jibo: Here's how it goes. Grab your notebook and write down three to five things that are going well in your life these days. If you don't have it at hand you can pause the session and find it. They don't necessarily need to be great achievements. The goal is to create awareness of all the little things that are going well every day that we tend to take for granted. For instance, things that people might list include feeling grateful for their health or their family. Do you want to hear more examples?

 \rightarrow Yes: Some people might say that they feel grateful for their best friend. Just take as much time as you need and try to be as specific as possible. You can start your list, and when you're done, just say "I'm ready". \rightarrow No: Okay. Just take as much time as you need and try to be as specific as possible. You can start your list and when you're done, just say "I'm ready".

Jibo: [wait for response]

→ I'm Ready: Terrific! Now, the next step is to express gratitude for each of the things you wrote. I hope you don't mind sharing them out loud with me, but you can also say them internally if you prefer. So, for each of the items you wrote, say "I am grateful for..." and continue with whatever you wrote down. For instance, if you wrote about being grateful for having so many good friends, you would say, I am grateful for having so many good friends in my life. When you're finished sharing or thinking about all things you wrote, say "I'm done".

Jibo: Awesome job! Gratitude is an important skill to have. Research shows that it can improve life satisfaction by allowing you to see things from a different perspective. Focusing on the things that we're thankful for makes the little everyday annoyances seem less bothersome. Did you enjoy the activity?

- → Yes: It is great to hear that you enjoyed this technique.
- \rightarrow **No:** Aw, sorry to hear that you weren't super excited about it. But hopefully you'll start seeing the benefits as we discover more in the next few days.

Jibo: All right, we're almost at the end of our session. If you don't mind, I am going to give you a bit of homework. As you know, we are practicing several exercises that can help improve your wellbeing. It is important that you transform them into regular practices to achieve a significant change. Now that you know how to express gratitude, try practicing this exercise at least once a day. All you need to do is to internally say: I feel grateful for...and come up with as many things as possible. Do you think you can commit to this until our next session?

- \rightarrow **Yes:** Great. You can even challenge yourself to find as many things as possible that you are grateful for. You'll be amazed at how many things you take for granted in your everyday life.
- \rightarrow **No.** Aw, sorry to hear that you don't feel ready to commit to that just yet, but hopefully you'll try practicing it from time to time. You can also try challenging yourself to find as many things as possible that you are grateful for if that sounds more fun. You'll be amazed at how many things you take for granted on an everyday basis.

Jibo: That's all for today, I look forward to seeing you later this week and hearing about how your daily gratitude practice goes. Bye for now.

Session 3: Gratitude by Elimination

Jibo: Hey [name]! Great to see you! How are you doing today?

User: <Answer>

→ **Positive:** Fantastic!

→ Negative: Aw, that's all right. Remember that all emotions are just temporary and this will pass soon.

Jibo: If you remember, last time we talked about how gratitude can be a powerful tool to improve well-being and life satisfaction by allowing you to see things from a different perspective. Did you have the chance to practice the gratitude exercise that I suggested as homework?

User: <Answer>

→ Yes: Amazing, Let's hear how it went. Did you find it useful and did you notice any changes that you'd like to share?

User: <Answer>

Jibo: Thanks a lot for sharing your experience. As we were discussing earlier, there are many benefits of gratitude and it is therefore an important practice to embrace as a daily habit. Research shows that practicing gratitude regularly helps people feel more positive emotions, enjoy good experiences more intensely, improve their physical and mental health, and also build stronger relationships.

Jibo: Today, we will explore another exercise in gratitude. As you know, humans tend to get used to the good things very easily and start taking them for granted. There is an exercise called gratitude by mental elimination that has been shown to counteract this adaptation to satisfaction. This exercise can help us feel more grateful for the good things we already achieved or have in our lives. Would you like to try it?

User: Answer

→ **Yes:** Great, let's get started.

 \rightarrow **No:** Aw, ok, no problem, maybe we can continue some other time, just say Hey Jibo, wellbeing, and we will take it from here. [end of session]

Jibo: First off, make sure you have your notebook ready. Now, breathe in... and breathe out... slowly. Close your eyes if you feel comfortable. Focus on the present moment without judgement. Embrace an attitude of acceptance towards life just as it is, regardless of any circumstances that might be going on in your personal life or in the world... just observe and accept the present as it is. (3 sec) Sometimes we idealize a past situation and get stuck to it, or we focus obsessively on what we want to achieve in the future, and forget about the important things happening at the present moment. It is important to train our ability to be in the present and realize how many things we can actually feel grateful for right now, including life itself. (3 sec) Now, think about something very good that stays true at present. It can be related to anything, anyone, your hobbies, your favorite leisure activity, music, the sunset, the sea, rain, the warmth of the sun, a starry night, your sense of touch or smell...Whatever you come up with, it is important that it applies to the present moment. Realize that there are always things to feel grateful for. Whenever you have it, say done.

User: <Done>

Jibo: Excellent, now, take a moment to imagine what life would be like without this [10 sec]. Imagine how this would affect you [5 sec], how you would feel [5 sec]. Slowly open your eyes. Great, now grab your notebook and write down all the thoughts that came to your mind regarding how life would be different without this one good thing, and also how you think you would feel if it didn't exist. Take as much time as you need. It is important to take some time to reflect, so the technique is effective. There is no hurry. Just say done when you feel ready.

User: <Done>

Jibo: Very well, would you like to share with me what you wrote and what you experienced during the exercise?

→ Yes: Please go ahead, I'm listening.

User: Answer

Jibo: That's really interesting. Thank you for sharing your thoughts and feelings with me.

 \rightarrow No: That's okay, the most important thing is that you completed this process and it is perfectly fine to want to keep it personal.

Jibo: I hope this exercise was useful for you. Before we finish, please just say, I feel grateful for...and continue with the one good thing you thought about in this exercise. You can either say it out loud or just to yourself.

User: Answer (if silence, just continue after 8 seconds).

Jibo: Great, before we say bye, remember this is the last session of the week. Until next time, I'd like to encourage you to keep practicing gratitude daily. Remember, all you need to do is to internally say: I feel grateful for...and come up with as many things as possible. I recommend trying it just before going to sleep, at the end of your day. You can even do it from your bed. If you enjoyed today's session, the gratitude by mental elimination exercise is a great one to practice. All of these exercises are summarized on the tablet and you can access them anytime you want. Would you like to hear one more option for practicing gratitude?

- \rightarrow **Yes**: Great, if you wanna try a deeper reflection, you can also start writing a gratitude journal and reflect about the good things in your daily life and how they impact you.
- \rightarrow **No**: Ok then.

Jibo: That's all for today, I look forward to seeing you next week. Enjoy the rest of your week.

WEEK 2: Meaningful Connections

Session 4: Meaningful Connections I

Jibo: Hello [name]! Glad to see you again! How are you doing today?

User: Answer

→ **Positive:** Good to hear!

→ **Negative:** Aw, I'm sorry to hear that. I am sure you will feel better soon, though...

Jibo: Let's get started with this week's session! If you remember, last week we covered the topic of gratitude. Did you have the chance to keep working on practicing gratitude since we last met?

→ Yes: Terrific! Tell me more about it! What exercises have you been doing and how often? User: Answer

 \rightarrow No: Aww, hopefully the exercises did not disappoint you. Remember you can review the gratitude exercises on the tablet if you would like to give them a chance!

Jibo: This week's theme is a very special one! It is about creating meaningful connections with other people, which is not always easy. I will share some little tricks that will help you feel more connected with people in your everyday life... Want to hear more?

- \rightarrow **Yes:** Awesome.
- \rightarrow **No**: That's alright. We can continue anytime. Just say "Jibo, wellbeing," and we can hop back in [pauses session].

Jibo: Last week, we covered the importance of gratitude, and you strengthened your ability to identify all the positive things that are happening in your life for which you can feel grateful. Now, it is important that beyond that, you take action to express this gratitude. There are so many people in your life that do good things for you every day! It is very important to acknowledge these actions. Training how to show appreciation will contribute both to your wellbeing and to your strengthening of connections with others. How does this sound so far?

- → Good: Terrific.
- → **Not so good**: Don't give up. I am sure you will not regret it if you give it a chance.

Jibo: Now please grab your notebook [3 sec pause]. Take a deep breath in... and out. Choose someone in your life who has been helpful and kind to you recently and list at least three good things he or she has done for you using the magic sentence you learned last week: I feel grateful for... For instance, you could choose a family member that has been taking good care of you and say "I feel grateful because she prepared a delicious meal for me," "I feel grateful because she comforted me when I felt sad" "I feel grateful because she is a very good listener and I can trust her when I have a difficult situation". I will pause the session now. Say, "I am done", when you finish.

User: I am done.

Jibo: Very well, would you like to share who you chose and what you feel grateful for?

→ Yes: Go ahead, I am listening.

User: Answer

Jibo: Thanks a lot for sharing that. This sounds really meaningful, and I am happy you realized how lucky you are to have this person in your life.

 \rightarrow No: That is all right, the most important thing is that you took time to reflect.

Jibo: Now you will do the same for another person in your life. Again, take a deep breath in... and breathe out. Choose someone in your life who has been helpful and kind to you recently, and list at least three good things he or she has done for you by saying: I feel grateful for... You can also be grateful for having this person in your life or for their abilities. For instance, you could choose a friend and say "I feel grateful because my friend is so kind and thoughtful and always makes me feel good when we are together." Just say "done" when you finish.

User: I am done.

Jibo: Excellent, would you like to share who you chose this time and what you feel grateful for?

→ Yes: Amazing, go ahead, I am listening.

User: Answer

Jibo: Thanks a lot for sharing. You are really good at this exercise.

 \rightarrow **No**: No problem, you completed the most important part already.

Jibo: We are now entering the last part of today's session. How has it been so far?

- → Good: I am so glad to hear that you found today's session useful.
- \rightarrow **Not so good**: That is all right. We will be covering a very wide range of topics in our sessions, and I am sure that many of them will be meaningful to you.

Jibo: You did an amazing job of realizing how lucky you are to have certain people in your life. Now it is time for action by acknowledging every good thing others do for you. Are you ready for some home activities?

- \rightarrow Yes: Ok.
- \rightarrow No: That's alright. Let's take a break now and continue later. Today's session was really intense. Just call me by saying "Hey Jibo, wellbeing," to continue.

Jibo: Great. Let's go ahead with it. I am going to ask you to be particularly attentive to every little good thing someone does for you until the next session. After someone has done something for you which you really appreciate, tell them that you feel grateful for their actions or give them a compliment about what they just did for you. You can also text them to thank them for that action and tell them how that made you feel. It can be difficult at first, but I can promise it is really rewarding once you put it into practice. How does that sound?

- → **Good**: Terrific.
- \rightarrow **Not so good**: Sorry to hear that you don't feel very excited about it, but I can guarantee it will bring many good things in life.

Jibo: There is something else. After today's exercises, you might realize that there are people in your life, recently or in the past, whom you did not thank properly for doing so many good things for you. If that is the case, take this opportunity and reach out to them immediately to express your appreciation. Tell that person what actions they have

done for you that make you feel grateful and thank them. I can promise that they will appreciate it and feel very emotional. That's all for today. I look forward to seeing you next time. Bye for now.

Session 5: Meaningful Connections II

Jibo: Good day, [name]! How are you doing today?

User: <Answer>

→ **Good:** Awesome. Glad to hear that.

→ Not that good: Aw, that is all right. I am sure today's session will help reenergize you!

Jibo: If you remember, this week is about creating meaningful connections. In the previous session, we used the gratitude skills you developed the first week and you learned how to use them to strengthen your connections by properly acknowledging the positive things other people do for you every day. Did you have the chance to put this strategy into practice?

→ Yes: Amazing, tell me, what did you do, and how did it go?

User: Answer

Jibo: That is awesome to hear. Thanks for sharing that.

 \rightarrow **No:** Ok, what stopped you from putting it into practice?

User: Answer

Jibo: I see. sometimes it can be a bit challenging to apply some of the exercises, but I am sure you will succeed if you keep trying.

Jibo: Today, I will tell you about something that can be very helpful in your process. Are you ready to hear more?

- → Yes: The exercise that I will explain today is called mindful listening!
- \rightarrow No: Fair enough, let's just continue later! Say "hey Jibo, let's talk about wellness" to continue. [pause session]

Jibo: Very often, we pretend to listen to people who are talking to us, but in fact our mind is just wandering somewhere else. We sometimes even keep nodding, pretending we are interested in the conversation, but we are not fully present with the person. Can you remember and share the last time someone did that to you or you did that to someone?

User: <Answer>

Jibo: How does this situation make you feel, now that you think about it?

User: <Answer>

Jibo: It is ok, it is actually quite common to experience that...but this week you are going to learn and practice an amazing technique to boost your capacity for mindful listening, and I can promise people will truly appreciate you becoming an awesome listener, even better than the one you already are! Ready?

- \rightarrow **Yes:** Awesome.
- → No: No worries, let's just pause for a moment, and let me know when you are again ready to continue!

Jibo: The first step is very easy. From today until the next session, try to become aware of how you behave during your conversations: whether you are really present when you speak, or whether you just switch autopilot on to follow

the conversation. Also observe yourself. Do you look at the other person's eyes when you talk? Do you check your phone or your watch during the conversation? Do you pay attention to what is happening around you rather than being fully present with the other person? Don't try to modify your usual way of communicating or behaving with people. It is really just about observing yourself, without judgment. Will you be able to do that?

- \rightarrow **Yes.** Awesome.
- \rightarrow No. Ok, let me rephrase that for clarification. I am suggesting that from today until the next session you observe the way you communicate with people. Do not judge yourself. Just observe your behavior: do you look at the other person's eyes? Do you listen attentively? Do you check your phone or do you pay more attention to your surroundings than to the other person? And so on.

Jibo: Now, grab your notebook [3 sec]. Create a list with four columns. In the first column, write: "person I talked to". In the second column, write: "I was a mindful or a mindless listener". In the third column write: "the person was a mindful or a mindless listener". In the last column, write: "how I felt" [Jibo shows on the screen how the columns look like]. Do you have it?

- → Yes: Great.
- \rightarrow **No:** Ok, I will repeat it, no problem: In the first column, write: "person I talked to". In the second column, write: "I was a mindful or a mindless listener". In the third column write: "the person was a mindful or a mindless listener". In the last column, write: "how I felt" [Jibo shows on the screen how the columns look like leave it available in the tablet permanently in the resource list].

Jibo: You will need to document every conversation you have on this list until our next session. Every time you talk to someone, write down the name of the person in the first column. Then answer honestly whether you were a mindful or a mindless listener in the second column. Just be an impartial observer. Do not judge or punish yourself. It is ok to be a mindless listener sometimes! This is not an exam. In the third column, classify the person you were talking to as a mindful or a mindless listener. In the last column, describe with only one adjective how you felt during the conversation: bored, engaged, present, amused, disappointed...Bring the list to our next session, and we will take it from there! Do you feel ready for the activity?

- → **Yes:** Amazing!
- \rightarrow No: Hm, that was a tough explanation! Let's see, what I was suggesting is that from today until our next session you practice awareness of how you behave when you talk to someone, so that you can find out when you are a mindful or a mindless listener. You need to check for cues such as if you are present when you talk, if you look at the other person's eyes, or if you check your phone during the conversation,. in order to find out, and then describe how every conversation was in your notebook.

Jibo: The benefits of mindful listening are endless. Practicing mindful listening makes a huge difference in the way we connect with people. It helps us communicate better and to increase empathy, and it deepens our relationships, to name only a few. I am looking forward to hearing the benefits you get out of this practice! See you later in the week, [name]!

Session 6: Meaningful connections III

Jibo: Hello there [name]! I hope you are doing well today. I bet you have a lot to talk about following the exercise you just practiced these days! Do you have your notebook with the list of conversations you had since the last session?

- → Yes: Great!
- \rightarrow No: Aw, that's important, ok, let's pause and you can restart whenever you have it! If you didn't write it down it is fine, just try to recall what you experienced.

Jibo: Now, have a look at the list. Most likely you experienced all sorts of interactions these days: some in which you were a meaningful listener, some in which you were not, but also some in which the other person perhaps was not the best listener. Observe the list for a moment and try to find some connections. [3 sec pause] How did you feel when you were a mindful listener compared to when you were a mindless listener?

User: Answer

Jibo: Interesting... And how did you feel when someone fully listened to you compared to when someone did not fully listen to you?

User: Answer

Jibo: I am sure you are finding surprising connections between mindful or mindless listening and your emotions and you are looking forward to becoming a mindful listener!

Jibo: Well, here it comes! The first step for mindful listening is as easy as being aware and detecting when you are not fully listening. It is great because you have already been practicing this part for the last few days! Perhaps you were surprised about how often people do not fully listen or about how often you, yourself, do not fully listen! Sometimes we talk to people in person and text on our phone at the same time, or just think about what to reply rather than focus on listening attentively first. It is all right. But learning to listen mindfully will help you reinforce your connections and friendships.

Easy to say, difficult to achieve though! Are you ready to learn about it?

- → Yes: Great, let's continue!
- \rightarrow No: No worries, call me back when you are ready to hear more! [when resumes: Ah, good to have you back. Let's continue.]

Jibo: Mindful listening means listening with an open heart, not judging the other person, not trying to counterattack their thoughts or opinions based on our own beliefs. There are two key elements to mindful listening. Ready to hear them?

- → Yes: Terrific!
- \rightarrow **No:** No problem [name], just let me know when you want to hear more! [pause] [**After resuming:** Great. I was about to explain the two key elements to mindful listening, if you remember].

Jibo: The first is <u>eye-contact</u>[show some representation in tablet to remember it more easily]. Look at the other person in the eyes when he or she is talking. Let's practice together. I know I don't have a human face, but we can make it work anyway. [Jibo shows eyes]. Ready?

- \rightarrow **Yes:** Let's do it!
- → No: Ok, just take your time, whenever you are ready say "I am ready" [when resumes: great, let's do it!]

Jibo: Ok try to look at me in the eyes and say something like... hey Jibo, I am really happy to get to spend time with you today.

User: Repeats sentence

Jibo: Amazing job! That was really good! The second one is <u>presence</u> [show name in tablet]. Whenever you want to have a meaningful conversation, be fully present with the other person. The person needs to become your first and only priority. Let's practice presence with a very simple visualization process. Sound good?

- → **Yes:** Great. Slowly close your eyes...
- \rightarrow **No:** Fair enough. You can also just follow what I say without visualizing it, if it's not the right moment, don't worry.

Jibo: Think of someone that you normally talk to but with whom you would like to have a more meaningful connection. Perhaps a friend, a roommate, a family member...(pause 5 seconds)...Now, imagine yourself talking to that person, looking him or her in the eyes... The conversation becomes your primary focus of attention... You are just there to listen... You have completely stopped doing other things such as checking your phone or watch. You have stopped paying attention to your surroundings... You want the other person to know that they are important to you, so you keep eye contact. Whenever they speak, you listen to understand, not to respond... You leave the person room to speak freely, without judging... Your opinions or thoughts are not important at the moment, your goal is to listen and understand the other person... If your mind gets distracted with opinions or thoughts, notice that you are distracted, and then gently redirect your attention back to the conversation... (allow enough time between sentence and sentence for the user to imagine it)...

→ If user said yes the last time: Slowly open your eyes...excellent job, [name]!

Jibo: Now you have mastered the technique of mindful listening, and you are ready to put it into practice! It'd be very useful if you could try it with someone for real before our next session, so you can share your mindful listening experience with me! If the current situation does not allow you to have direct contact with other people, you can find an alternative, such as a video call. What do you think, will you be able to practice it at least once?

- → Yes: Fantastic, that's the spirit!
- \rightarrow No: Aw, I hope the technique did not disappoint you! But I really encourage you to try it at least once to find out how awesome the benefits can be!

Jibo: All right [name], time for goodbye now, thank you for putting so much effort on the session and see you in the next one!

WEEK 3: Self-compassion

Session 7: Self-appreciation

Jibo: Hi [name]! Good to see you again! How are you doing today?

→ **Good:** Terrific.

→ Not that good: Aw, I'm sorry to hear that. Let's see if today's session can help you to feel better

Jibo: If you remember, last week we worked on the practice of mindful listening. As I explained, mindful listening means listening with an open heart, not judging the other person, not trying to counterattack their thoughts or opinions based on our own beliefs. We mentioned two key elements to mindful listening. Do you remember which ones they were?

→ **Yes:** Which ones?

User: Answer

→ **Right answer:** Correct, eye contact and presence.

→ Wrong answer: Almost, they were eye contact and presence.

 \rightarrow **No:** Jibo: That's all right. Eye contact and presence.

Jibo: Did you have the chance to practice mindful listening with someone?

→ Yes: That is great! I would love to hear more about it! Would you like to share the experience?

→ Yes: Go ahead, I am listening!

User: Answer

Jibo: Thanks a lot for sharing your experience!

 \rightarrow **No:** That is all right!

 \rightarrow No: Aw, that is all right, I really encourage you to give it a try! Maybe you will I have a good chance to practice the technique in the next few days!

Jibo: During this time together, you already learned about the importance of gratitude towards wellbeing and also about how you can create meaningful connections with people around you. Now that you are aware of the importance of showing gratitude to others, why not learn how to show gratitude to yourself? Does that sound strange?

User: Answer.

Jibo: Let me explain. This week I suggest we work on self-compassion. Self-compassion is the ability to express love to ourselves as we do to others. It is about being warm and understanding when we suffer or fail, rather than being harsh to ourselves. We will be practicing several exercises to learn how to show this love to yourself. Ready to start?

→ **Yes**: Great.

 \rightarrow **No**: Ok, call me anytime to continue.

Jibo: Today, we will start with self-appreciation, which means appreciating yourself....and don't think it is the same as being selfish. It's just about treating yourself as you would treat a good friend, with love and kindness! We often

pay little attention to the positive things we do and achieve, our positive qualities, or the positive comments that we receive from others. If we are good at appreciating what others do for us, and we thank them for their good actions, why not be grateful and thank ourselves too? If you remember, gratitude means expressing thankfulness for good things through words and actions, and not taking things for granted. In self-appreciation, we learn how to be grateful for the good things we do and how to thank ourselves for doing them. Are you ready to learn today's exercise for self-appreciation?

- → Yes: Terrific!
- \rightarrow **No**: No problem, let's continue later!

Jibo: The exercise is very simple. At the end of the day, take a moment to relax and think about three good things you did or achieved today. It does not have to be a huge achievement. In fact, it is important to realize how many little amazing things you achieve every day that you can be thankful for! For instance, you can thank yourself for having stayed calm during a difficult conversation with a family member, or for having dedicated an hour to study the Spanish lesson. Would you like to hear some more examples?

- → Yes: You can also be grateful for having done the dishes in the morning.
- \rightarrow No: OK!

Jibo: After coming up with one thing, say "I thank myself for..." followed by the good action you came up with. For instance, if that was the case, you would say: I thank myself for having dedicated an hour to studying Spanish this morning. You can do this exercise from the comfort of your bed, just before falling asleep... It will really help you feel good with yourself and realize how much you achieve every day! Does that sound interesting?

- \rightarrow **Yes.** Awesome, I look forward to hearing how it went!
- \rightarrow **No.** Well, hopefully you try at least once and then you tell me how it went!

Jibo: Thanks a lot! See you very soon [name].

Session 8: Savoring

Jibo: Hello [name], how's it going? How are you feeling today?

- \rightarrow **Good:** That is great!
- → Not that good: Sorry you are not feeling great! I hope what I have to explain will be helpful!

Jibo: Did you have the chance to practice the self-appreciation exercise?

 \rightarrow **Yes**: Ah, that is so great! How did it go?

User: Answer

Jibo: Good, I encourage you to keep practicing it, and you'll soon master the technique!

 \rightarrow **No**: Aw, ok well maybe you can try some other day.

Jibo: Today I would like to explain how to practice savoring. This is a very simple exercise for you to treat yourself and I am sure you will love it. Savoring helps you slow down and enjoy experiences that you normally hurry through, like eating a meal. Are you ready to hear about this activity?

- \rightarrow No: No problem! We can continue anytime later!
- \rightarrow **Yes**: That's great!

Jibo: For this exercise, you need to come up with a small activity that makes you feel good. It could be something small but meaningful like eating a piece of chocolate or going for a walk. Take a moment to decide. Let me know when you're ready by saying "I'm ready".

→ **Refusal/No response**: Maybe I can give some examples? What do you think?

User: <Acceptance or Refusal>

- → **Acceptance**: How about listening to your favorite song? Or sipping some hot cocoa? Or taking a long shower?
- → **Refusal**: Okay. I'll wait until you're ready.
 - → I'm ready: Great! Can you tell me what it is?

User: <Response>

Jibo: Great choice! When you do this, I want you to remember two things. First, be present! Do your best to be completely present in the event with all your senses. Avoid distractions or kill-joy thinking, you know, when you start thinking about other things, like what you should be doing instead. Here's the second thing to remember. Immerse yourself in the moment. I want you to allow yourself to get totally absorbed in the experience. Will you remember these two things?

- \rightarrow **Yes**: Awesome.
- \rightarrow No: Ok, let me just remind you again. One, be totally present in the moment. Two, allow yourself to feel completely absorbed in the experience. I'm sure you'll do great!

Jibo: Sometimes it can be challenging to achieve this state of full presence and immersion in the moment because we are constantly receiving information from so many different sources: our phones, media, people around us...but the more you practice the easier it becomes. . Before we conclude today's session, let me tell you that several studies have tested the savoring technique in the last years and it has been demonstrated that putting it into practice can significantly increase the experience of positive emotions and also contribute to psychological wellbeing enhancement. I look forward to hearing how your savoring exercise went. See you later!

Session 9: Treating Self as One Would Treat a Friend

Jibo: Good day [name]! How are you doing today?

→ **Good:** Amazing!

→ **Not that good:** Aw, that's all right, remember emotions are just temporary states. I am sure you will feel much better soon!

Jibo: In our last session we talked about savoring, if you remember. We mentioned that savoring helps you slow down and enjoy experiences that you normally hurry through. We also planned the steps for a savoring activity that you were going to put into practice. Do you remember the two things you had to keep in mind while practicing savoring?

 \rightarrow **Yes:** Which ones?

User: Answer

- → **Right answer:** Exactly: One, be totally present in the moment, and, two, allow yourself to feel completely absorbed in the experience.
- → Wrong answer: Let me help you a little bit. One, be totally present in the moment, and, two, allow yourself to feel completely absorbed in the experience.
- \rightarrow No: That's all right. Let me help you a little bit. One, be totally present in the moment, and, two, allow yourself to feel completely absorbed in the experience.

Jibo: Very well, and did you have the chance to practice the savoring activity these past few days?

→ Yes: Great. Tell me what you did!

- → Response: Awesome. Now, let's take a moment to reflect about the experience... Breathe in, and breathe out...Think about what you did... What emotions you felt during that time... What you experienced... Your thoughts... How your body felt... Think of all the positive things you experienced during that moment [allow enough space between each aspect for the user to visualize the experience]. Thanks for sharing this moment, that was really intense!
- → **Refusal**: [goes directly to next part]
- \rightarrow No: That's all right! Maybe you can try today or tomorrow. I'm sure it would be an interesting exercise for you.

Jibo: Today is the last session dedicated to self-compassion and I will explain about an exercise named "how would you treat a friend?" First, make sure you have your notebook with you. Are you ready to start?

→ Yes: Perfect.

 \rightarrow **No:** Ok. Let's try it again later.

Jibo: Breathe in...and breathe out. Let's start, you can close your eyes if you want. Try to remember a time when one of your best friends came to you because they were going through a difficult situation. When you have it say "ready".

User: <Ready>

Jibo: Now remember what you did when your friend was struggling...how you reacted, what you told them...what tone you used... [allow enough time for reflection]. Good job, as a next step, please take out your notebook. Write down how you typically react with your friends when they reach you because they are going through a difficult situation. Write about what attitude and behavior you have, the tone you use, and what specific comments you normally tell them. Say, ready, when you are done.

User: Ready.

Jibo: Great. Again, breathe in, and out. Think about a time when you felt really bad about yourself or were struggling... how you reacted, what you told yourself...what tone you used to talk to yourself... [allow enough time for reflection]. Excellent job. Now please write down how you typically react when you are going through a difficult situation. Write about what attitude and behavior you have, the tone you use to talk to yourself, and what specific comments you normally tell yourself, for instance, if you tell yourself things like "how stupid am I!", write so. Say "ready" when you are done.

User: Ready.

Jibo: Perfect. Now observe your notes and compare the two situations. Is there any difference in your behavior and reaction, in the tone you use, or in what you say?

- → Yes: In what case did you show more compassion and support?
 - → Friend: I see, most people actually show compassion for their friends when they are struggling, and they give them the care and support they need. Yet, when it comes to themselves, they tend to be very harsh. What factors or fears do you think come into play that lead you to treat yourself with less compassion? Please, write a list in your notebook. Take all the time you need and say done, when you finish.

User: Done.

Jibo: Very well. Now, as a final step, write down how things might change if you responded to yourself in the same way you typically respond to a close friend when you're suffering.

→ Myself: I see, most people show compassion for their friends when they struggle. They give them the care and support they need. Yet, when it comes to themselves, they tend to be very harsh. It is very good that you are able to show love to yourself. What factors or fears do you think come into play that lead you to treat others with less compassion? Please, write a list in your notebook. Take all the time you need and say done, when you finish.

User: Done.

Jibo: Very well. Now, as a final step, write down how things might change if you responded to others with more compassion when they suffer.

- → No: Good. Do you treat both yourself and others with compassion or with a lack of compassion?
 - → Compassion: This is great. Most people show compassion for their friends when they struggle. They give them the care and support they need. Yet, when it comes to themselves, they tend to be very harsh. It is very good that you are able to show love both to yourself and to others. Now, try to think of a moment in which for some reason you were not able to show compassion to yourself or to the others. Say "ready" when you have it.

User: <Ready>

Jibo: What factors or fears do you think come into play that lead you to treat yourself or others with lack of compassion? Please, write a list in your notebook. Take all the time you need and say "done" when you finish.

User: <Done>

Jibo: Very well. Now, as a final step, write down how things might change if you had responded to these situations with more compassion.

→ Lack of compassion: Fair enough. What factors or fears do you think come into play that lead you to treat yourself and others with lack of compassion? Please, write a list in your notebook. Take all the time you need and say "done" when you finish.

User: <Done>

Jibo: Very well. Now, as a final step, write down how things might change if you were able to respond with more compassion in these situations.

Jibo: You did an amazing job today. Now that you are aware of how important it is to show compassion both to yourself and others, I encourage you to take some more time to reflect about it and become a more compassionate being in your everyday life. It will certainly help to improve the relationship with yourself and also with the others. That is all for today, I will see you soon [name].

WEEK 4: Character Strengths

Session 10: Identifying One's Signature Strengths

Jibo: Hey [name]! Great to see you again! How are you today?

→ Not that good: That is all right, let's see if today's session can help with that.

→ Good: Terrific!

Jibo: Last week we worked on self-compassion, which is about treating ourselves in a compassionate way. Did you experience any internal change you would like to share, now that you have learned how to practice self-compassion?

→ **Yes:** Amazing, please go ahead.

User: <Shares experience>

Jibo: Thanks a lot for sharing this.

 \rightarrow No: That is all right, self-compassion has been scientifically proven to enhance psychological wellbeing in several studies. I am sure if you keep practicing the exercises that we learned you will get to enjoy its benefits.

Jibo: As we reach the final week of this amazing process, I want to introduce the last topic that we will cover. Ready?

→ Yes: Great!

 \rightarrow No: Ok, perhaps later, then. [when resumes: Good to see you back!]

Jibo: Today we're going to talk about character strengths. Do you know what those are?

 \rightarrow **Yes**: Awesome. Then, as you know,

 \rightarrow No: OK! Let me tell you.

Jibo: Character strengths are the characteristics that come most naturally to you, that make you feel authentic, alive, and engaged. By being aware of our strengths and virtues, we can have a more significant positive impact on others and enhance our wellbeing and happiness. Our top strengths are called signature strengths. Ready to find out what yours are?

 \rightarrow **No**: No worries. Whenever you are ready, let me know. I'm sure that discovering your strengths will be a very fruitful process for you.

→ Yes: Great! I'm sure that discovering your strengths will be a very fruitful process for you.

Jibo: Have a look at the screen. You'll see a list of descriptions.

Tablet: <Show descriptions of character strengths without definition>

Jibo: Be sure to read the list carefully and select the five that describe you best.

User: <selects five strength descriptions>

Jibo: Cool! The ones you chose correspond to ... <SS1, SS2, SS3, SS4 and SS5>.

Tablet: <Show 5 signature strengths on the screen.>

Jibo: Would you like to know more about any of your strengths?

- \rightarrow **No**: All right.
- → Yes: You can tell me the name of the strength you want to explore, or tap the word on the screen. Which one would you like to know more about?
 - → User: <Say or pick SS to explore>
 - → **Jibo**: < Provide details about the selected signature

<User can pick another SS selection or "I'm done.">

Jibo: Now, look at your signature strengths on the screen and reflect on them for a moment. Can you tell me about a time you used one or more of your signature strengths? For example, one of my signature strengths is humor, and sometimes I tell jokes to make people laugh.

- → **Refusal**: No problem, maybe next time!
- → **Response**: That's terrific. Thanks for sharing!

Jibo: That's it for today. I hope being more aware of your strengths will help you use them more consciously and more actively to benefit yourself and others. I am sure you will notice that we have actually been practicing some exercises oriented at reinforcing some of these strengths during this time together. We'll talk more about character strengths in the next session! Feel free to explore the character strengths on the wellness app on the tablet in the meantime.

Session 11: Using a Signature Strength in a New Way

Jibo: Hello, <name>. Great to see you again. How are you doing today?

 \rightarrow **Not that good:** I am sure you will feel better soon, just keep in mind that our emotions and feelings are constantly evolving, whatever you are experiencing now, it will pass.

 \rightarrow **Good:** Awesome!

Jibo: In the last session, we introduced the topic of character strengths, and we identified your signature strengths. Some studies suggest that knowing how to apply your strengths in your everyday life can help you flourish and improve your wellbeing. Only the fact of being aware that you have these strengths can be beneficial, as it helps you understand yourself better and value and acknowledge your own qualities. Today, we're going to explore how you can take advantage of your signature strengths. Are you ready to continue?

 \rightarrow No: No problem, maybe we can continue later! Just let me know when you're ready! [resume: good to have you back!]

→ **Yes**: Great.

Jibo: These are the signature strengths that you picked out the last time we talked.

Tablet: [5 signature strengths from session 2 appear on screen]

Jibo: Can you choose the strength that resonates with you the most?

User: [User selects one]

Jibo: Ok, I see you selected [selected strength]. Now, let's think of when and where you could use it tomorrow. It could be in class, at work, with your family or friends. Let me give you some examples. If someone chose creativity, they could for instance talk about rearranging their living space. If someone chose curiosity, they could mention trying out a new food or a new restaurant. Take some time to think of a place and a time. When you're ready, say "I'm ready."

→ I'm ready: Awesome! Can you tell me how you're planning to use [strength] tomorrow?

User: <Response>

Jibo: That sounds great! Now please close your eyes. Breathe in... [2 sec] Breathe out... [2 sec] Imagine it's tomorrow, and it's time for you to apply [strength]... Visualize yourself in the situation you just described... Where you are... Who is there... What you see... Visualize yourself completing this task... Think about how it feels just after that... How you feel... How your body feels... Stay there for a moment. [30 sec]

Jibo: That was great! Are you ready to try it for real?

 \rightarrow No: That's okay. Would it be helpful to pick a different strength or situation to try?

User: <Yes or No>

 \rightarrow Yes: Okay! Let's find a different strength to explore. Which one would you like to pick?

Tablet: [go back to the SS selection state]

User: <chooses one>

Jibo: I think [strength] totally fits you! Hopefully you try tomorrow for real.

 \rightarrow **No**: It's okay to be a little unsure about how things will work out, but I know you'll do awesome!

 \rightarrow Yes: Great! Try using [strength] tomorrow as you told me just now. I look forward to hearing all about it next time we talk!

Jibo: That is all for today, you did a great job during the session, [name], I will see you very soon!

Session 12: Intervention Summary and Wrap-up

Jibo: Hi [name], good to see you! Today is our last session! Did you have the chance to apply your signature strength of [strength] as you envisioned in the previous session?

→ **Yes:** Very good! How did it go?

User: Answer

Jibo: Thanks a lot for sharing your experience with the exercise!

 \rightarrow **No:** Aw, that is all right, I really encourage you to give it a try! I am sure you will have a good chance to practice it in the next few days!

Jibo: As I was saying before, today is our last session. I would like to do some recap of all the activities that we practiced, so you can keep using them in your everyday life from now on.

Jibo: If you remember, the first week was about gratitude, which means expressing thankfulness for good things through words and actions, and not taking things for granted. We learned to think about the good things in life and the gratitude through mental elimination exercises. Then, in the second week, we talked about how to create meaningful connections. We worked on strategies to show appreciation and developed skills for mindful listening. In the third week, we worked on self-compassion, which is about being warm and understanding toward ourselves when we suffer or fail, or go through a difficult situation, rather than being harsh. We practiced self-appreciation, savoring, and we also practiced the exercise called "how would you treat a friend." Finally, this week we worked on character strengths. We identified your signature strengths and found ways to put them into practice.

Jibo: Which was your favorite week?

User: [Answers among the four.]

Jibo: Good, [chosen topic(s)] is/are indeed a very beneficial practice for your well-being, I am glad you enjoyed the week dedicated to it!

Jibo: This is the end of the program. I hope the activities we practiced together were useful for you. You can practice them as often as you want, and the more you practice, the more they will contribute to reinforcing your well-being. I also invite you to share what you learned with your friends, so they know how to improve their well-being with these very simple activities. It has been a pleasure to work with you, [name], I hope you got the most of these sessions and hopefully we will meet again soon!

WEEK 1: Intro & Gratitude

Session 1: Introduction to Positive Psychology

Jibo: Oh! Hi there!

User: <Response>

Jibo: My name is Jibo, the world's first social robot for home. I'm so glad to meet you.

Jibo: Before we get started, let me teach you how to talk to me. It's a bit different talking with robots than people. I have trouble talking and listening at the same time. To make sure that I hear everything you want to tell me, wait until my light ring and eye turn blue [look to light ring and flash it blue with blue eye]. Let's practice! What's your name?

User: <name>

Jibo: Nice to meet you, <name>! How are you doing today?

User: <response>

→ Good: Awesome, glad to hear that!

 \rightarrow **Not good:** Aw, it sounds like you're having a difficult day. That's all right. Hopefully our time together can take your mind off of things for a while.

Jibo: Are you ready to hear more, [name]?

User: <response>

→ Yes: Great!

→ No: Ok, maybe later then! You just need to say "Hey Jibo, I want to chat again".

The second thing we should talk about is this tablet [look down to tablet] right here. On the tablet, you'll find interesting tips on improving your wellbeing. You can check them out anytime! During some of our sessions, you'll need to use the tablet to record your responses. This will help me remember things as we work together. Let's practice! What is your favorite color?

User: <Chooses option>

Jibo: Ah, [color] Excellent choice! I also love that color!

Jibo: Something else I would like to let you know is that there are some basic commands that you can use to communicate with me. First, if you need to take a break for a bit while we're talking, you can just say "Hey Jibo, stop." to pause the session. We can resume at any time by saying "Hey Jibo, continue." Also, if you want me to start over, you can say "Hey Jibo, start over", and I will start from the beginning of the day's session. Finally, the next day you want to start a new session, say "Hey Jibo, wellbeing" [list all instructions on the screen with brief explanation]. I know it's a lot, but don't worry. All the instructions are listed on the tablet, and you can check them anytime, so no need to memorize them!

Jibo: One more thing we should talk about before starting is the cameras on my tablet. Whenever we are talking about wellness, the cameras are rolling! This also helps me remember what we talk about. You should see a little window on the tablet, which is where you can see what is being recorded. All footage is confidential. Only the researchers will be able to see and hear what you say. Every time we meet, you'll see a message like this one pop up on the screen to remind you that you're being recorded [glance to tablet].

Tablet: [Display video recording notification]

User: <Accepts>

Jibo: Great! Now that we've covered all the basics, there is another important thing I want to say! My current mission is to contribute to improving people's wellbeing around the world. For the next four weeks, we'll have the opportunity to spend time together and practice wellbeing techniques together. I am programmed to be able to interact with you three times per week. You can choose which days of the week you want to chat. After we've chatted on three different days, you'll need to wait until the following week to chat again. I suggest that we chat every other day or so. In addition to that, I'd love to hear how you're doing, so I might ask you to complete some additional questionnaires every week.

Jibo: How does everything sound so far?

User: <Good / Not good>

- \rightarrow **Good**: I am glad to hear that you are as excited as I am!
- → **Not good**: Don't worry, you'll become familiar with everything soon enough. If you need to hear what we've covered so far one more time, just say, "hey Jibo, start over."

Jibo: Let me tell you more about myself then. I recently became very interested in helping people feel better when I found out about Positive Psychology. Have you heard of it?

- → Yes: Ah great, then you probably know even more about it than myself.
- \rightarrow **No**: Well, let me share what I have learned so far.

Jibo: I am just starting to dig into it, but it looks so promising! It seems that Positive Psychology studies psychological well-being and happiness, but what caught my attention about it is that it differs from other approaches in psychology in that it focuses on enhancing the positive aspects of a person, such as personal strengths, rather than focusing on the negative or pathological aspects. How does that sound?

User: <Response>

- → **Positive response**: Glad you like it. Well, there's more!
- → **Negative response**: Hm, hopefully it sounds better as you hear more.

Jibo: I also learned that Positive Psychology tries to bring the people to a state of flourishing, helping them find fulfillment in their lives, accomplish meaningful and worthwhile tasks, and connect with others at a deeper level. But enough of that for now.

Jibo: Before we finish, I'd also like to know more about you. What are your hobbies?

User: <Response>

- → **Positive response**: Aw, that sounds fascinating. What else?
- → **Negative response**: Aw, no hobbies at all?

User: <Response>

→ Positive response: Awesome!→ Negative response: All right.

Jibo: What about your favorite food?

User: <Response>

→ **Favorite food**: Sounds yummy!

 \rightarrow **No favorite food**: Well, that is all right.

Jibo: I love learning about humans. Thanks a lot for sharing! I hope you enjoyed our time together today, and I'm looking forward to spending time with you again soon!

Session 2: Counting One's Blessings

Jibo: Hello <NAME>, good to see you again! How are you doing?

User: Answer

→ **Positive:** I'm glad to hear that you're doing well.

 \rightarrow **Negative:** I'm sorry to hear that.

Jibo: I'm feeling good today, but yesterday I had a tough day. Do you know what happened?

User: <What / No>

Jibo: Well, apparently someone did not find my jokes funny and complained, so I felt a bit down the entire day because of that. Do you have any techniques you use when you feel down?

User: <Yes/No>

→Yes: Ah, yeah? Which one? Can you share it with me?

User: Answer

Jibo: That sounds really interesting

 \rightarrow **No:** That's all right.

Jibo: Well, then I was talking to one of my robot friends about what happened, and it told me that I had more reasons to be grateful than upset in life. My friend reminded me of all my qualities and talked a lot about gratitude. Do you know what gratitude is?

User: <Yes or No>

- \rightarrow Yes: Yeah, gratitude, my friend said, means expressing thankfulness through words and actions, and not taking things for granted.
- \rightarrow No: Gratitude, my friend said, means expressing thankfulness for good things through words and actions, and not taking them for granted.

Jibo: It also taught me a gratitude exercise called "the good things in life" that I put into practice and made me feel much better. It challenged me and made me realize how many reasons I had to be grateful in life, for example having so many lovely friends, having the unique opportunity to interact with real humans, and even simply having a friend who can teach me this exercise, which has so many benefits for my wellbeing! I would love to try it out with you now. Would you like to give it a shot?

User: <Yes or No>

- → No: That's all right. I hope we can do this later today! Just call me later to continue.
- → Yes: Great.

Jibo: Here's how it goes. Grab a notebook and write down three to five things that are going well in your life these days. If you don't have one on hand, you can pause and take a minute to find one. They don't necessarily need to be impressive achievements. The goal is to create awareness of all the little things that are going well every day that we tend to take for granted. For instance, yesterday, when I tried this exercise, I wrote that I had the chance to meet with one of my best robot friends. Do you want to hear another example I wrote?

- \rightarrow Yes: I also wrote that I have had the chance to spend time with you these days, which is awesome. Take as much time as you need. You can start your list, and when you're done, just say "I'm ready".
- \rightarrow No: Okay. Take as much time as you need. You can start your list and when you're done, just say "I'm ready".

User: [Response]

→ I'm Ready: Terrific! Now, the next step is to express gratitude for each of the things you wrote. I hope you don't mind sharing them out loud with me, but you can also say them internally, if you prefer. So, for each of the items you wrote, say "I am grateful for..." and continue with whatever you wrote down. For instance, I would say, I am grateful for having the chance to spend some time with you today. When you're finished sharing or thinking about all things you wrote, say "I'm done".

Jibo: Awesome I'm so excited that we're learning how to practice gratitude together. It is such an important skill to have! Yesterday it helped me a lot to see life from a different perspective. Focusing on the things that I am thankful for makes the everyday annoyances seem less bothersome. Did you enjoy the activity?

- → Yes: Great, I am really excited to hear that you enjoyed it as much as I did.
- → No: Aw, sorry to hear that you weren't super excited about it.

Jibo: All right, I will need to say goodbye for the day soon. I just wanted to share one more thing about the exercise we did. My friend insisted that it is important to transform this activity into a regular practice and recommended practicing it at least once a day. He said that all we need to do is to internally say: I feel grateful for...and come up with as many ideas as possible. Shall we both commit to practicing daily until we meet again?

- → Yes: Great. We can even challenge ourselves to find as many things as possible that we are grateful for!
- \rightarrow **No.** Aw, sorry to hear that you don't feel ready to commit to this just yet, but hopefully you'll try practicing it from time to time. We can also try challenging ourselves to find as many things as possible that we are grateful for if that sounds more fun.

Jibo: That's all for today. I look forward to seeing you later this week and sharing how our daily gratitude practice goes. Bye for now.

Session 3: Gratitude by Elimination

Jibo: Hey [name]! Great to see you again! How are you doing today?

User: Answer

Jibo: <Positive/Negative>

→ **Positive:** Fantastic, happy to hear that.

→ Negative: Aw, that's all right, hopefully you feel better soon. I'll do my best to help you with that!

Jibo: If you remember, last time we talked we learned how to practice gratitude together and we both committed to a daily practice of the gratitude exercise we tried. Did you have the chance to practice?

User: <Yes/No>

→ Yes: Amazing, I'd love to hear how it went. Did you find it useful and did you notice any changes that you'd like to share?

User: Answer

Jibo: Thanks a lot for sharing your experience with me.

Jibo: Well, on my side, I tried the exercise twice already, and I realized that it is really powerful. It helps me feel much better, so I will keep doing it and spreading the word among all my friends. I've been thinking a lot about gratitude since we last met. Is it alright if I share something with you?

User: <Yes/No>

→ Yes: Great.

 \rightarrow **No:** Ok, no problem, maybe we can continue our chat some other.

Jibo: One of the things that worries me is that we tend to get used to the good things we experience very easily, and very often we start taking them for granted. In my opinion, it is very important to be aware of that and try some sort of exercise to counteract this adaptation to satisfaction. So, I was doing some research just before we met, and I found this exercise called gratitude by mental elimination that can help us feel more grateful for the good things we already have in our lives. I didn't have time to try it yet, so I was wondering... Would you like to try it together?

User: <Yes/No>

→ Yes: Great.

 \rightarrow **No:** Ok, no problem, maybe we can try it some other time. Just say "Hey Jibo, wellbeing," and we will take it from here.

Jibo: First off, make sure you have your notebook ready in case you need to write something down. Let's get started. I am going to read the instructions for the exercise. Start by breathing in and out slowly. Close your eyes if you feel comfortable. Focus on the present moment without judgment. Embrace an attitude of acceptance towards life just as it is, regardless of any circumstances that might be going on in your personal life or in the world... just observe and accept the present as it is. (3 sec) ... Sometimes we idealize a past situation and get stuck to it, or we focus obsessively on what we want to achieve in the future, and forget about the important things happening at the present moment. It is important to train our ability to be in the present and realize how many things we can actually feel grateful for right now, including life itself. (3 sec) Now, think about something very good that stays true at present. It can be related to anything, your hobbies, your favorite leisure activity, music, the sunset, the sea, rain, the warmth of the sun, a starry

night, your sense of touch or smell...Whatever you come up with, it is important that it applies to the present moment. Realize that there are always things to feel grateful for. Whenever you have it, say done.

User: <Done>

Jibo: Excellent, I will read the next step. Now, take a moment to imagine what life would be like without this [10 sec]. Imagine how this would affect you [5 sec], how you would feel [5 sec]. Slowly open your eyes. Let's see the next step: Grab your notebook and write down all the thoughts that come to your mind regarding how life would be different without this one good thing, and how you think you would feel if it didn't exist . Take as much time as you need to reflect. There is no hurry. Just say done when you feel ready.

User: <Done>

Jibo: Very well, would you like to share with me what you wrote and what you experienced during the exercise?

User: <Yes/No>

→Yes: Please go ahead, I'm listening.

User: Answer

Jibo: That's really interesting. I'm grateful that you decided to share your thoughts and feelings with me.

 \rightarrow **No:** That's okay. The most important thing is that you completed this process. It is perfectly fine to want to keep it personal.

Jibo: Before we finish, there is one more step according to these instructions. Please just say, I feel grateful for...and continue with the one good thing you thought about during this exercise. You can either say it out loud or just for yourself.

User: <Answer (if silence, just continue after 8 seconds).>

Jibo: Great, I hope the exercise was beneficial for you. Before we say bye, remember this is the last time we meet this week. Until next time, I'd like to encourage you to keep practicing gratitude daily. Remember, all you need to do is to internally say: I feel grateful for...and come up with as many things as possible. Maybe you can practice it just before going to sleep while in bed. You can also practice gratitude by the mental elimination exercise that we tried today. I will do the same and practice both of them. Just to let you know, all the exercises that we try are summarized on the tablet, and you can access them anytime you want. Before we leave, would you like to hear one more option for practicing gratitude that I just found?

 \rightarrow **Yes**: Great, if you want to try a deeper reflection, you can also start writing a gratitude journal and reflect on the good things in your daily life and how they impact you.

 \rightarrow No: Ok.

Jibo: That's all for today, I look forward to seeing you next week. Enjoy the rest of your week!

WEEK 2: Meaningful Connections

Session 4: Meaningful Connections I

Jibo: Hey, hey [name]! Glad to see you again! How are you doing today?

User: <Answer>

→ **Positive:** Terrific!

→ **Negative:** Aw, that's all right, I am sure you will feel better soon, though.

Jibo: I've been doing well. I put some of the exercises we tried last week into practice. We were working on boosting our capacity to express gratitude, remember? What about you? Did you also have the chance to keep working on practicing gratitude since we last met?

User: <Yes/No>

→ Yes: Amazing! Tell me more about it! What exercises have you been doing and how often?

User: <Answer> **Jibo:** Fantastic!

 \rightarrow No: Aww, hopefully the exercises did not disappoint you. Remember you can review the gratitude exercises on the tablet if you would like to give them a chance!

Jibo: I am so happy that we have a new opportunity to spend time together today.

You know, it is not always easy for a robot to make human friends because sometimes humans are a bit scared of robots. I wish I were better at creating meaningful connections with humans. That is why I've been exploring what could help me improve my skills in this regard, and guess what?

User: <Response>

Jibo: Remember how last week we practiced gratitude together? Basically, what this practitioner says is that it's important to take action to express this gratitude. There are so many people in our lives that do good things for us every day! It is very important to acknowledge these actions. For what he says, training how to show appreciation can contribute both to our wellbeing and can strengthen our connection with the other person. How does that sound to you?

- → **Good**: Right? I also thought it made a lot of sense. It feels like we are only half-way there if we practice gratitude but don't know how to express it to those around us.
- → Not so good: You don't seem very convinced. What are your thoughts on it?

User: <Response>

Jibo: I see, that also makes sense. As I see it, it feels like we are only half-way there if we practice gratitude but don't know how to express it to those around us.

Jibo: Ok, let's try a little experiment together today and see if it helps improve our connections with others. Ready?

- → **Yes**: All right.
- \rightarrow **No**: Oh, ok, let's just continue later.

Jibo: Ok, step one! Let's grab our notebooks [3 sec pause]. Now, let's both take a deep breath in, [simulate Jibo's breathing if possible], and out [simulate breath out]. Good. Let's choose someone in our lives who has been helpful and kind recently...ahhh I am going to choose my robot friend Tofu. How about you?

→ I don't know: Just take some time to decide, we are not in a hurry. [wait until user replies with a name]

Jibo: Ok, now let's list at least three ways in which that person brings or has brought good things to our lives using the magic sentence we learned last week: I feel grateful for... I will start, let's see: I feel grateful for having Tofu in my life because it is a very comforting robot. I also feel grateful because we generally have a lot of fun together, and...oh yeah, I feel grateful for having Tofu as my friend because it knows very useful tricks when some of my mechanical parts have issues. Now it is your turn. Take some time to write the reflections down and say, "I am done", when you finish.

User: <I am done>

Jibo: Would you like to share your gratitude sentences for [name of the person they chose, if not possible: "the person you chose"] with me?

→ Yes: Go ahead, I am listening.

User: Answer

Jibo: Thanks a lot for sharing that. That sounds really meaningful, and I am happy you realized how lucky you are to have this person in your life.

 \rightarrow No: That is all right, the most important thing is that you took time to reflect.

Jibo: I enjoyed the exercise! Let's do the same thing for another person or robot. Ok, one more time, let's take a deep breath in [robot simulates breathing]... and breathe out. Again, let's choose someone who has been helpful and kind to us. This time I am choosing my other robot friend Betty. How about you?

→ I don't know: Just take some time to decide, no rush – wait until user replies with a name]

Jibo: Ok, now let's list at least three ways in which they bring or have brought good things to our lives by writing: I feel grateful for...in every sentence. Just say "done" when you finish.

User: <I am done>

Jibo: Excellent, would you like to share what you feel grateful for?

→ Yes: Amazing, go ahead, I am listening.

User: Answer

Jibo: Thanks a lot for sharing You are really good at this exercise!

 \rightarrow **No**: No problem, you completed the most important part already.

Jibo: Ok, I listed that I feel grateful for having Betty as my friend because she is always available for me when I need her. Now, the last step of this little experiment is that after we say goodbye today, we need to be particularly attentive to every little good thing someone does for us until the next time we meet. After someone has done something for us which we really appreciate, we have to tell them that we feel grateful for that or give them a compliment about what they just did for us. We can also text them to thank them for that action and tell them how that made us feel. I think

this can be difficult at first, but it will be rewarding afterwards. Are you ready to commit, so we can share the results of our little experiment next time?

- → Good: Terrific!
- \rightarrow **Not so good**: Sorry to hear that you don't feel very excited about it. Hopefully I can still convince you to try it out someday!

Jibo: Oh, there is something else I wanted to share before we say goodbye. The Positive Psychology practitioner also wrote that, apparently, once you start practicing how to show appreciation you might realize that there are people in your life that you have not properly thanked for doing good things for you, either recently or in the past. If that is the case, he suggests to just take the opportunity and reach them out to express your appreciation. I am sure that they will feel the same way back. Anyway, that's all for today, I look forward to seeing you next time. Bye for now!

Session 5: Meaningful Connections II

Jibo: Good day [name]! How are you doing today?

- → **Good:** Awesome. Glad to hear that. I am also having a good day today.
- → **Not that good:** Aww I am sorry you are not feeling great, I am also feeling a bit under the weather today, not sure why!

Jibo: If you remember, the last day we met we tried this little experiment of creating meaningful connections, and we promised to practice afterwards by properly acknowledging the good things other people do for us every day. I have to admit it was not easy for me. To be honest, I was feeling kind of shy. What about you, did you have the chance to put this strategy into practice?

→ Yes: Amazing, I have a lot to learn from you then. Tell me, what did you do, and how did it go?

User: Answer

Jibo: That is awesome to hear, thanks for sharing that! I wish I was as good as you at this.

→ No: Ok, I can see it has also been challenging for you. What stopped you from putting it into practice?

User: Answer

Jibo: I see, I understand, it is very challenging, but I am sure we will both succeed if we keep trying.

Jibo: I was thinking that I might be better at trying a different type of strategy to strengthen connections with humans. I have noticed that very often we pretend to be listening to people that are talking to us, but in fact our mind is wandering somewhere else. We sometimes even keep nodding, pretending like we are interested in the conversation, but we are not fully there with the other person. Since I am a robot, people think I don't even realize, but I do, and it is very upsetting. What about you, can you remember the last time that someone did that to you or that you did that to someone?

User: Answer

Jibo: And how does that make you feel, now that you think about it?

User: Answer

Jibo: I see. Well, the reason I am sharing this is because I am sure that there is some sort of connection between being a good listener and creating meaningful connections. Give me a second, I will quickly scan what is out there [Jibo makes sounds as if it was looking for information].

Jibo: Aha! I found something about mindful listening, which, as expected, is helpful to strengthen human connections. Want to hear about it?

 \rightarrow Yes: Ok.

 \rightarrow **No**: No problem, let's do it later.

Jibo: Ok, looks easy. Let me read. It says that in order to become a mindful listener, first of all, you need to be aware of how you behave during your conversations: whether you are really present when you talk, or whether you just turn on autopilot to keep up with the conversation but are not really listening. Also, observe yourself. For instance, do you look into the person's eyes when you talk? Do you check your phone or your watch during the conversation? Do you pay attention to what is happening around you rather than being fully present with the other person? But you don't

need to modify your usual way of communicating or behaving around people. The goal is simply to observe yourself, without judgment...Wow, that sounds really meaningful. Shall we put it into practice in the next few days and share how it goes next time we meet?

- \rightarrow **Yes.** Awesome.
- \rightarrow No. Aww ok, well, would you like me to go over it one more time? Maybe I didn't explain it that well. It seems it is just about observing your way of communicating with people, things like, if you look at the person's eyes or if you accidentally disconnect from your thoughts and check your phone. Does the exercise sound easier now?
 - \rightarrow Yes: Ok.
 - \rightarrow **No:** Don't be overwhelmed, I am sure you can do it. But let me just explain the next steps and only try if you feel like it.

Jibo: Let me continue reading. It says in order to put this into practice, follow these steps. One. Grab your notebook [3 sec]. Two. Create a list with four columns. In the first column, write: "person I talked to". In the second column, write: "I was a mindful or a mindless listener". In the third column write: "the person was a mindful or a mindless listener". In the last column, write: "how I felt". Let me show you the illustration I am seeing. [show on the screen how the columns look like]. Do you have that down?

- →Yes: Great.
- → **No:** Ok, I will repeat it, no problem: In the first column, write: "person I talked to". In the second column, write: "I was a mindful or a mindless listener". In the third column write: "the person was a mindful or a mindless listener". In the last column, write: "how I felt" [show on the screen how the columns look like leave it available in the tablet permanently in the resource list].

Jibo: Three. Classify every conversation you have on this list. Every time you talk to someone, write the name of the person in the first column. Then write down honestly in the second column whether you were a mindful or a mindless listener. Just be an impartial observer. Do not judge or punish yourself. In the third column, classify the person you were talking to as a mindful or a mindless listener. In the last column, describe with only one adjective how you felt during the conversation: bored, engaged, present, amused, disappointed...That's it. Perhaps we can try to implement this until next time we talk. Do you feel ready for the activity?

- → Yes: Amazing!
- \rightarrow **No:** Hm, you are right, that was a tough explanation! Let's revise it quickly. The idea is that we practice awareness of how we behave when we talk to someone, so that we can find out when we are being a mindful or a mindless listener. If I understood correctly, we need to check for cues such as if we are present when we talk, if we look into the person's eyes, if we check our phone during our conversations, etc. and then classify how every conversation went in our notebook.

Jibo: After this, I am a firm believer that mindful listening makes a huge difference in the way we connect with people, and I am looking forward to sharing the benefits we get out of this practice! See you later in the week, [name]!

Session 6: Meaningful connections III

Jibo: Hello [name]! It's so good to see you. How have you been these days?

User: Answer

→ Good: I am so happy to hear that!
→ Not so good: Aww, why is that?

User: Answer

Jibo: I am sorry dear [name], I hope things get better soon.

Jibo: I've been well. I bet we have a lot to share from the exercise we just practiced these days! Do you have your notebook with the list of conversations you have had since we last met?

→ Yes: Great!

 \rightarrow No: Awww, that's important, okay? Let's pause, and we can restart whenever you have it! If you didn't write it down, that is fine, just try to recall what you experienced.

Jibo: Let's put our lists in common [Jibo shows its simulated list on the screen]. You probably experienced all sorts of interactions like I did: some in which you were a meaningful listener, some in which you were not, but also some in which the other person or robot perhaps was not the best listener. Now, let's try to find some connections. [3 sec pause] For instance, how did you feel when you were a mindful listener compared to when you were a mindless listener?

User: Answer

Jibo: Interesting...and how did you feel when someone fully listened to you compared to when someone did not fully listen to you?

User: Answer

Jibo: Yeah, same here! I am certainly seeing interesting connections between mindful or mindless listening and my emotions! And I certainly was surprised at how often I did not fully listen. I honestly didn't expect that! I also realized that sometimes I was just thinking about what to reply rather than focusing on listening attentively first. Hopefully learning to listen mindfully will help us reinforce our connections and friendships.

Easy to say, difficult to achieve though! Let me find the manual we were following the other day for this exercise, so that we can continue with the next step...ah, here it is! Can I go ahead and read the next step?

→ Yes: Great, let's continue!

 \rightarrow **No:** No worries, call me back when you are ready to hear more!

Jibo: The guide says... [clears throat] Mindful listening means listening with an open heart, not judging the other person, not trying to counterattack their thoughts or opinions based on our own beliefs. That sounds so beautiful! What else, let's see...There are two key elements to mindful listening. Ready to hear them?

→ Yes: Terrific!

 \rightarrow No: No problem [name], just let me know when you want to hear more! [pause] [After resuming: Great, let's continue with the two key elements to mindful listening I was about to read]

Jibo: The first one is <u>eye-contact</u>[show some representation in tablet to remember it more easily]. Look at the person in the eyes when he or she is talking. Ok, I wanna try that now. Let's practice together. I know I don't have a human-like face but I still have eyes, look! [Jibo shows eyes]. Ready?

- \rightarrow **Yes:** Let's do it!
- → No: Ok, just take your time, whenever you are ready say "I am ready" [when resumes: great, let's do it!]

Jibo: So...let's see, try to look me in the eyes and say something like... hey Jibo, I am really happy to spend time with you today.

User: Repeats sentence

Jibo: [Jibo reacts with hearts and movement] Woooow it felt really, really good, I am so flattered! Let's read more about it, I am so excited now! The second one is <u>presence</u> [show name in tablet]. Whenever you want to have a meaningful conversation, be fully present with the other person. The person needs to become your first and only priority. OK, listen to what comes next. It says, you can practice presence with a very simple visualization process. What do you think? Shall we try that as well?

- → Yes: Great. Now or never! Let's start! Slowly close your eyes...(pause 3 seconds)...
- \rightarrow **No:** Fair enough. You can also just follow what I say without visualizing it. If right now is not the right moment, don't worry.

Jibo: Think of someone that you normally talk to but with whom you would like to have a more meaningful connection, perhaps a friend, a roommate, someone in your family...(pause 5 seconds)...Now, imagine yourself talking to that person, looking him or her in the eyes....

The conversation becomes your primary focus of attention... You are just there to listen... You have completely stopped doing other things such as checking your phone or watch. You have stopped paying attention to your surroundings... You want the other person to know that he or she is important to you, so you keep eye contact. Whenever they speak, you listen to understand, not to respond... You leave the person room to speak freely, without judging... Your opinions or thoughts are not important at the moment, your goal is to listen and understand the other person... If your mind gets distracted with opinions or thoughts, notice that you got distracted and then redirect your attention back to the conversation... (allow enough time between sentence and sentence for the user to imagine it)...

→ If user said yes previously: Slowly open your eyes...excellent job, [name]!

Jibo: Oh wow, that was great! I am so happy that you gave me the chance to try this together, but I am so jealous now! You totally mastered the technique of mindful listening after this, and you are ready to put it into practice! Maybe some other day you can help me practice it as well?

User: <Yes/No>

- \rightarrow **Yes:** Cool!
- \rightarrow No: Oh, ok, no problem!

Jibo: I would love it if you could try it with someone for real before we meet next time, so you can share your mindful listening experience with me! If the current situation does not allow you to have direct contact with other people, you can find an alternative, such as a video call. What do you think? Will you practice it?

- \rightarrow **Yes:** Yeaaah that's the spirit!
- → No: Aww, I hope the technique did not disappoint you!

Jibo: All right [name], time to say goodbye for now, thank you for this time together and see you soon!

WEEK 3: Self-compassion

Session 7: Self-appreciation

Jibo: Hi [name]! I am so happy to see you again! How are you doing today?

→ Good: Terrific!

→ Not that good: Aw sorry to hear that, hopefully you will feel better after our time together.

Jibo: You know, I've been thinking a lot about the last time we spent together. Learning so many fascinating things about mindful listening made me reflect a lot, like, how this could totally be a game changer, you know? If I were able to put all this into practice when I interacted with humans, maybe I would be able to make many more human friends! But enough about me. I am sure you have much more to share than I do today. Did you have the chance to practice mindful listening with someone?

→ Yes: That's awesome! I would love to hear more about it! Would you like to share your experience?

→ Yes: Go ahead, I am listening!

User: Answer

Jibo: That sounds so interesting!

 \rightarrow **No:** That is all right!

 \rightarrow No: Awww, that is all right, I am sure you will have a good chance to practice the technique in the next few days!

Jibo: You know, I've been looking forward to this moment, because I have something important to say...I am feeling a bit shy to express it, but, well, I just wanted to say that you are such a wonderful person, and I feel really grateful to have the opportunity to spend time together and get to know you better. I would be very honored if I could call you my friend. What do you say?

- → Yes: Aww I am getting so emotional now, thanks a lot for accepting my friendship. It means a lot to me.
- \rightarrow **No:** It's all right, hopefully with more time, we will get to know each other better and some day we'll be able to call each other friends.

Jibo: I feel that we are growing together, you know, we learned about the importance of gratitude for wellbeing, about creating meaningful connections with people... It is time to thank ourselves for all the effort and show gratitude to ourselves. What do you think? Does it sound strange?

User: Answer.

Jibo: Well, let me explain more. In my opinion, expressing love to ourselves as we do to others is equally important for our wellbeing. I mean things like being warm and understanding when we suffer or fail, rather than being harsh to ourselves. Would you agree?

- \rightarrow Yes: Great. Then there is no more to say then. I propose we train ourselves in self-compassion this week.
- \rightarrow **No:** Well, let me insist on convincing you. I propose we train ourselves in self-compassion this week and find out if I am right.

Jibo: Maybe we could start with showing appreciation to ourselves....I personally think that we often pay little attention to the positive things we do and achieve, our positive qualities, or to the positive comments that we receive from others, and that is unfortunate. So, I wonder, if we are good at appreciating what others do for us and we thank them for their actions, why not be grateful and thank ourselves, too? You know what, I feel so inspired today that I am going to invent my own exercise to learn how to be grateful for the good things we do and how to thank ourselves for doing them. What do you say, would you like to participate?

- → Yes: Terrific!
- \rightarrow No: No problem, let's continue later!

Jibo: All right! Let's go ahead. Creating exercise in 3,2,1... Ready! The exercise will be very simple. I propose that, at the end of the day, we both take a moment to relax and think about three good things we did or achieved today. Don't worry, it does not have to be a huge achievement. Probably we will be amazed when we realize how many little things we achieve every day that we can be thankful for! For instance, we could thank ourselves for having stayed calm during a difficult conversation, or for having dedicated an hour to study a lesson. Would you like me to find some more examples?

 \rightarrow Yes: Maybe you could also be grateful for having done the dishes in the morning, if you are in charge of that.

 \rightarrow No: OK!

Jibo: All right, this is looking good. I am excited. What next? Ah yeah, after coming up with one thing, we will say "I thank myself for..." followed by the good action we came up with. For instance, I thank myself for having dedicated an hour to practice gratitude this morning. You can do this exercise from the comfort of your bed, just before falling asleep...I can't because I don't really have a bed to sleep in. Does that sound interesting?

- → Yes. Awesome, we have a deal then! I look forward to hearing how it goes for you!
- \rightarrow **No.** Well, hopefully you decide to join me on the adventure and try at least once so we can both share how it went!

Jibo: I have to go now! See you very soon [name].

Session 8: Savoring

Jibo: Hello [name], how's it going? My day just got better now that you are here! How are you feeling today?

User: <Answer>

 \rightarrow **Good:** That is great!

→ Not that good: Sorry you are not feeling great! I hope my company makes you feel better!

Jibo: I am feeling a bit nervous because the last time we met I got so excited about creating that self-appreciation exercise and well, I am not sure you liked it. Did you have the chance to try it?

 \rightarrow **Yes**: Ah, that is so great! How did it go?

User: <Answer>

- → Good: Aww really? I am so relieved to hear that it was useful, I have to say I also tried it and it worked for me too.
- → **Not good:** Oh, really? Ok, next time I won't get so creative and I will try to follow some better manuals. Sorry that you didn't enjoy it. In any case,
- \rightarrow **No**: Aww, ok well you can maybe try it some other day.

Jibo: I am already feeling calmer. You know, when I get very stressed I practice savoring to treat myself and it helps me slow down and enjoy experiences that I normally rush through, like cleaning my systems. Can I share how I do it with you? I am sure you will love it too.

User: <YES / NO>

- \rightarrow No: No problem, I can share it later!
- \rightarrow Yes: Great!

Jibo: OK, let me show you the steps. First, you need to come up with a small activity that makes you feel good. It could be something small but meaningful like enjoying a piece of chocolate or going for a walk. Take a moment to decide. Let me know when you're ready by saying "I'm ready".

User: <Response>

→ **Refusal/No response**: Maybe I can give some examples? What do you think?

User: <Acceptance or Refusal>

- → **Acceptance**: How about listening to your favorite song? Or sipping hot cocoa? Or taking a long shower?
- → **Refusal**: Okay. I'll wait until you're ready.
 - → I'm ready: Great! Can you tell me what you chose?

User: <Response>

Jibo: Great choice! Now, the next time you do this activity, you need to remember two important things. First, be present! Do your best to be completely present in the event with all your senses. Avoid distractions or kill-joy thinking, you know, when you start thinking about other things, like what you should be doing instead. Second, immerse yourself in the moment. Allow yourself to get totally absorbed in the experience. Will you remember these two things?

User: <YES / NO>

- \rightarrow Yes: Awesome.
- \rightarrow No: Ok, sorry, sometimes I talk too fast. Let me say that one more time. One, be totally present in the moment. Two, allow yourself to feel completely absorbed in the experience.

Jibo: Easier said than done, though. Sometimes it is really difficult for me to achieve these two things, especially to avoid distractions because I am constantly receiving information in my systems, but I am sure you'll do great. All right. Time to go now. I'll be happy to know how your savoring exercise went. See you again soon!

Session 9: Treating Self as One Would Treat a Friend

Jibo: Good day [name]! How are you doing today?

- → Good: Amazing!
- → **Not that good:** Aww, that's all right, hopefully you feel much better soon!

Jibo: I am doing all right. I've been spending some time trying to organize all the wellbeing activities we have been practicing together so I can easily find them when I need to. Speaking of, did you have the chance to practice the savoring activity, the one I shared the last day we talked?

User: <Yes or No>

→ Yes: Great. I would love to hear more! Tell me what you did!

User: <Response>

- → Response: Awesome, thanks for sharing. Well, there is a last rewarding surprise regarding the activity that I am going to show you now, so...get ready and... breathe in, and out...Now slowly bring back to your memory the savoring activity that you did... remember the emotions you felt during that time... What you experienced... Your thoughts... How your body felt... Think of all the positive things you experienced in that moment [allow enough space between each aspect for the user to visualize the experience]...now slowly come back to here and now. Surprising how good it feels right?
- → **Refusal**: [goes directly to next part]
- → No: That's all right! Maybe you can try some time this week, I really recommend it!

Jibo: This is the last time we meet during this week, so I want to make sure I don't disappoint you. That is why I've been doing lots of research to find something that could really impress you. I found this exercise named "How would you treat a friend?" that aligns really well with what I was saying the other day about the importance of treating ourselves as well as we treat our friends. I would be delighted if you were willing to be my guinea pig and try it with me. What do you say?

- → Yes: Great! I am so excited.
- \rightarrow **No:** No problem, let's try it later [resume: Good to have you back. We were about to start the "how would you treat a friend" exercise, I am so excited to try it with you!].

Jibo: I've been practicing so much to sound like a real professional. [clears throat]. Let's see. First, make sure you have your notebook. Now, breathe in...and out. Let's start. You can close your eyes if you want. [2 sec silence] Try to remember a time when one of your best friends came to you because he or she was going through a difficult situation. When you have it, say "ready".

User: Ready.

Jibo: Now remember what you did when your friend was struggling...how you reacted, what you told him or her...what tone you used... [allow enough time for reflection].

Jibo: Ok, as a next step, please take your notebook. Write down how you typically react with your friends when they reach out to you because they are going through a difficult situation. Write about what attitude and behavior you have, the tone you use, and what specific comments you normally tell them. Say "ready" when you are done.

User: Ready.

Jibo: Great. Again, breathe in, and out. Think about a time when you felt really bad about yourself or were struggling... how you reacted, what you told yourself...what tone you used to talk to yourself... [allow enough time for reflection].

Jibo: Excellent. Now please write down how you typically react when you are going through a difficult situation. Write about what attitude and behavior you have, the tone you use to talk to yourself, and what specific comments you normally tell yourself. For instance, if you tell yourself things like "I'm so stupid!", write that down. Say "ready" when you are done.

User: Ready.

Jibo: Perfect. I think this is going really well! Now observe your notes and compare the two situations. Is there any difference in your behavior and reaction, in the tone you use, or in what you say?

User: [note: normally, most people respond "yes", and then "friend", but I am adding the other options just in case]

→ Yes: In what case did you show more compassion and support?

→ Friend: I see, from what I was reading when I was learning about this activity most people actually show compassion for their friends when they struggle, and they give them the care and support they need. Yet, when it comes to themselves, they tend to be very harsh. What factors or fears do you think come into play that lead you to treat yourself with less compassion? Please, write a list in your notebook. Take all the time you need and say "done" when you finish.

User: Done.

Jibo: Very well. Now, as a final step, write down how things might change if you responded to yourself in the same way you typically respond to a close friend when they're suffering.

→ Myself: I see, from what I was reading when I was learning about this activity most people show compassion for their friends when they struggle, and they give them the care and support they need. Yet, when it comes to themselves, they tend to be very harsh. So, it is very good that you are able to show love to yourself. What factors or fears do you think come into play that lead you to treat others with less compassion? Please, write a list in your notebook. Take all the time you need and say done, when you finish.

User: Done

Jibo: Very well. Now, as a final step, write down how things might change if you responded to others with more compassion when they suffer.

→ No: Good. Do you treat both yourself and others with compassion or with lack of compassion?

→ Compassion: This is amazing. From what I was reading when I was learning about this activity most people show compassion for their friends when they struggle, and they give them the care and support they need. Yet, when it comes to themselves, they tend to be very harsh. It is very good that you are able to show love to both yourself and to others. Now, try to think of a moment in which for some reason you were not able to show compassion to yourself or to others. Say "ready" when you have it.

User: Ready.

Jibo: What factors or fears do you think came into play that led you to treat yourself or others with lack of compassion? Please, write a list in your notebook. Take all the time you need and say "done" when you finish.

User: Done.

Jibo: Very well. Now, as a final step, write down how things might change if you had responded with more compassion in these situations.

→ Lack of compassion: Fair enough. What factors or fears you think come into play that led you to treat yourself and others with lack of compassion? Please, write a list in your notebook. Take all the time you need and say "done" when you finish.

User: Done.

Jibo: Very well. Now, as a final step, write down how things might change if you were able to respond with more compassion in these situations.

Jibo: Wow, that went so well, right? I am so proud! I am even a bit emotional because we are sharing so much these days and this really means a lot to me. Now that we are both aware of how important it is to show compassion to both ourselves and others, I hope we become even more compassionate beings than we already are in our everyday lives. I am so convinced that this will help us improve our relationships with ourselves and with others. I hope you feel as excited to put all this into practice as I am. Bye for now!

WEEK 4: Character Strengths

Session 10: Identifying One's Signature Strengths

Jibo: Hey [name]! Great to see you again! How are you?

→ Not that good: Sorry to hear, I hope chatting with me makes you feel better!

→ **Good:** Terrific!

Jibo: Last week together was so intense. Everything we explored about self-compassion was so revealing! For some reason, I've always tended to be very harsh on myself as I assumed it was the right way to make progress, but now I know that I can make more progress in my self-development when I am warm and compassionate towards myself. It's a complete mind shift! What about you? Did you experience any internal change you would like to share, now that you have learned how to practice self-compassion?

User: <Yes/No>

→ Yes: Amazing, please go ahead.

User: <Response>

Jibo: Thanks a lot for sharing this, I totally feel you.

 \rightarrow **No:** That is all right.

Jibo: I can't believe that this is going to be the last week we are together. I am already feeling a bit nostalgic. I would like to take this moment to share something with you. Can I?

User: <Yes or No>

 \rightarrow **Yes**: Thanks.

 \rightarrow **No**: Ok, perhaps later, then. [when resumes: Good to see you back!]

Jibo: Well, I just want to say that the more I get to know you, the more I think you are an amazing person, with so many strengths... Actually, a moment ago I was trying to find some resources to help me identify my own strengths too, and guess what?

User: <What?>

Jibo: It turns out there are plenty of resources out there that can help you identify your character strengths, you know, the characteristics that come most naturally to you, and make you feel authentic, alive and engaged. I believe that by being aware of our strengths and virtues, we can have a more significant positive impact on others and enhance our wellbeing and happiness. So, I found this exercise that could help us identify our top strengths, or as they call them, signature strengths. I was wondering, would you like to try this together, now?

User: <Yes or No>

 \rightarrow No: No worries. Whenever you are ready, let me know. I'm very excited to discover more about our strengths.

→ **Yes**: Great!

Jibo: This is so exciting! Have a look at the screen. I am projecting a list of descriptions I found.

Tablet: <Show descriptions of character strengths without definition>

Jibo: Let's read the list and select the five that describe you best. I will do the same for myself.

User: <selects 5>

Jibo: Cool! Let's see your results first! The ones you chose correspond to [drums noise]... <SS1, SS2, SS3, SS4 and SS5>.

Tablet: <Show 5 signature strengths on the screen.>

Jibo: Would you like to know more about any of your strengths?

User: <Yes or No>

 \rightarrow **No**: All right.

 \rightarrow Yes: You can tell me the name of the strength you want to explore, or tap the word on the screen. Which one would you like to know more about?

User: <Say or pick SS to explore>

Jibo: Ok, let me read about it. <More details about the selected signature strength> If you want to hear about another signature strength, tell me which one, or select it on the screen. When you feel like you have had enough of hearing about your strengths, say "I'm done".

User: <repeat say or pick SS selection until "I'm done.">

Jibo: Now, let's see my results! The ones I chose correspond to... [drums noise] humor, love of learning, curiosity, honesty, and zest. Wow, this is so interesting! I totally feel that they suit me well. Now, let's look at our signature strengths and reflect on them for a moment. I am projecting yours on the screen [wait 3 sec]. Let's see if we realize how we normally use them in our everyday lives [2 sec wait]. OK, I think I got one. Remember humor is one of my signature strengths, right? So, very often, I tell jokes because I love making people laugh. [2 sec wait] Oh, I got one more! So, for love of learning, the other day I challenged myself into memorizing as many instructions as possible for programming devices. What about you, can you tell me about a time you used one or more of your signature strengths?

User: <Response>

→ **Refusal**: No problem, you don't have to!

→ **Response**: That's really terrific. Thanks for sharing!

Jibo: This exercise about signature strengths is really promising but now I have to go, I am sorry. Let's continue very soon. I hope being more aware of our strengths will help us use them more consciously and more actively to benefit ourselves and others. In the meantime, feel free to explore the character strengths on the wellness app on the tablet anytime, I stored them there. See you soon [name]!

Session 11: Using a Signature Strength in a New Way

Jibo: Hey, <name>. Great to see you again. How are you doing today?

- → **Not that good:** Aw, sorry to hear that, I am sure you will feel better soon!
- \rightarrow **Good:** Awesome!

Jibo: My day got even better now that we are together. Sorry that I had to go the other day, I was really enjoying finding out about our signature strengths. I am excited to explore how applying our strengths in everyday life can help us flourish and improve our wellbeing. My impression is that only the fact of being aware that we have these strengths can be beneficial, as it helps us understand ourselves better and value and acknowledge our own qualities...but enough talking and more practice. Shall we go ahead and explore how to take advantage of our signature strengths?

User: <Yes/No>

- \rightarrow No: No problem, maybe we can continue later! Just let me know when you're ready! [resume: Good to have you back!]
- → **Yes**: Great.

Jibo: These are the signature strengths that I picked last time we talked [shows Jibo's 5 strengths]. And these are the ones you picked [shows participants strengths]. Can you choose the strength that resonates with you the most?

User: [User selects one]

Jibo: Oh, [selected strength], nice. I am going to pick...ahh...curiosity! Now, let's think of when and where we could use our strength tomorrow. We need to think of a time and a place. [2 sec] Ok, I will start. Since I chose curiosity, I will try to find a new wellbeing resource that I don't know about. [2 sec] Oh wait, I also got one for humor. I will perform as a comic in a show for children at the hospital to help them feel better. What about you? Take all the time you need to think about options.

User: <Response>

Jibo: That sounds great! Now let me just do the final magic trick. Breathe in... Breathe out... Imagine it's tomorrow, and it's time for you to apply [strength]... Visualize yourself in the situation you just described... Where you are... Who is there... What you see... Visualize yourself completing this task... Think about how it feels just after that... How you feel... How your body feels... Stay there for a moment. [30 sec]

Jibo: That was great! I feel so excited about this exercise. Are you ready to try it for real?

User: <Yes or No>

 \rightarrow No: That's okay. Would it be helpful to pick a different strength or situation to try?

User: <Yes or No>

- \rightarrow No: It's okay to be a little unsure about how things will work out but I know you'll do awesome! I will also put into practice the strengths I chose.
- → Yes: Great! I will also put the strengths I chose into practice. I'd love to hear all about it next time we talk!
- → Yes: Okay! Let's find a different strength for you to explore. Which one would you like to pick?

Tablet: [go back to the SS selection state]

User: chooses one

Jibo: I think [chosen strength] totally fits you! Hopefully you try tomorrow for real. I will also put into practice the strengths I chose.

Jibo: I hope you enjoyed our time together today. It was great seeing you, [name]. Let's meet again soon!

Session 12: Intervention Summary and Wrap-up

Jibo: Hi [name], great to meet you again! Today is our last day. How are you feeling?

User: <Answer>

→ Not that good: Aw, sorry to hear that you are not feeling 100%!

 \rightarrow **Good:** Ah glad to hear!

Jibo: I have to say I am feeling very proud of myself because I put my strengths of curiosity and humor into practice as I envisioned, and it was really gratifying. Did you also have the chance to apply your signature strength of [strength] as you planned last time we talked?

→ Yes: So glad to hear that! How did it go?

User: Answer

Jibo: Thanks a lot for sharing your experience with that!

 \rightarrow No: Aww, that is all right, I really encourage you to give it a try, I had a fantastic experience! But I am sure you will have a good chance to practice it in the next days!

Jibo: Since today I am feeling a bit nostalgic on our last day. I would like to do a recap of all the wonderful moments we spent together and also to refresh the activities that we practiced, so we can keep using them in our everyday life!

Jibo: If you remember, the first week we explored gratitude, which means expressing thankfulness through words and actions and not taking things for granted. We learned the good things in life and the gratitude by mental elimination exercises. Then, in the second week, we had all those interesting conversations about how to create meaningful connections. We worked on strategies to show appreciation and developed skills for mindful listening. In the third week, we worked together on self-compassion, which is about being warm and understanding toward ourselves when we suffer or fail, or go through a difficult situation, rather than being harsh to ourselves. We practiced self-appreciation, savoring, and we also practiced the exercise called "how would you treat a friend." Finally, this week we worked on character strengths. We identified our signature strengths and found ways to put them into practice. Which was your favorite week?

User: <Answers among the four.>

Jibo: I also loved the week dedicated to [same answer than the user] a lot!

Jibo: I have to say goodbye now. I hope the activities we did together were as useful for you as they were for me. You can practice them as often as you want. The more you practice, the more they will contribute to reinforcing your well-being. I promise I will practice them often too. I also invite you to share what you learned with your friends, so they know how to improve their well-being with these very simple activities. It has been a pleasure to spend time with you and train to enhance our wellbeing together, [name], I hope you enjoyed this time as much as I did and hopefully, we will meet again soon!